Inalienable possession in locational constructions[☆]

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Abstract

In this article, we will argue that Dutch inalienable possession constructions such as (1a) and (1b) have the same underlying structure in (2a): (1a) is derived by means of an obligatory movement of the predicate of the *BIJ*-phrase into the specifier of the locational PP, as in (2b); (1b), in its turn, is derived from the structure in (2b) by incorporation of the functor *BIJ* into the verb, as a result of which the NP is assigned dative Case. This analysis is consistent with Hoekstra's (1994) hypothesis, according to which inalienable possession is syntactically encoded by means of a functor *P* (*BIJ*) that takes the possessor as its internal and the possessum as its external argument: [_{SC}[_{NP} Possessum]][*P* [_{NP} Possessor]].

- (1) a. Ik zet het kind bij Jan/hem op de linker knie.
I put the child with Jan/him on the left knee
b. Ik zet Jan/hem het kind op de linker knie.
I put Jan/him the child on the left knee
'I put the child on John's left knee.'
- (2) a. ... V ... [_{PP} spec *P*_{loc} [_{SC} NP₁ [*BIJ* NP₂]]] (underlying structure)
b. ... V ... [_{PP} [*BIJ* NP₂]_j *P*_{loc} [_{SC} NP₁ *t*_j]] (= (1a))
c. ... *BIJ*_j+V [_{FP} [*t*_i NP₂]_j *F* .. [_{PP} *t*_j *P*_{loc} [_{SC} NP₁ *t*_j]]] (= (1b))

Independent evidence in favor of the proposal in (2) will be given, among which rather complex data involving island effects on movement from out of the locational PP. Further, the discussion will be complicated by interference of apparently similar, but actually quite different constructions, which we will discuss as well.

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1. Introduction

Recently, it has been argued that possessive datives, such as *hem* in example (1), are not inserted in the structure directly, but are derived from a more complex structure, in which the possession relation is expressed by means of a possessive functor TO (which is taken to be the phonetically empty counterpart of the preposition *to*). Assume (i) that the base structure of (1) is as given in (2a), where NP₁ is the possessed element *de handen* ‘the hands’ and NP₂ is the possessor *hem*, and (ii) that the complete TO-phrase acts as the complement of the verb (cf. Hoekstra, 1994). The dative construction can be derived by incorporation of TO into V. Of course, the two NPs must be reordered, for which proposals are readily devised. We will assume that *[TO NP₂]* moves into the specifier of a higher FP before incorporation of TO takes place, as in (2b), which can be motivated by e.g. some adjacency or government requirement on incorporation (cf. Den Dikken, 1995).¹ In this paper, we will adopt this proposal.

- (1) Ik was hem_{dat} de handen.
 I wash him the hands
 (2) a. ... V ... [_{SC} NP₁ [TO NP₂]]
 b. ... TO_i+V [_{FP} [_{t_i} NP₂]_j F [_{SC} NP₁ _{t_j}]]

Possessive dative constructions such as (1) are abundantly used in the eastern varieties of Dutch, but are extremely rare in Standard Dutch; the possession relation in (1) must be expressed by means of a genitival possessor in the latter variety: *zijn handen* ‘his hands’. In Standard Dutch, the possessive dative can only be used in (transitive and ergative) constructions in which the verb takes a locational complement (which we take to be the predicate of a prepositional Small Clause ((henceforth: SC); cf. e.g. Hoekstra and Mulder, 1990, and references cited there). This is illustrated in (3), in which the dative NP *Jan/hem* acts as the possessor of the prepositional complement *de schouders* ‘the shoulders’.

- (3) a. Ik hang Jan_{dat} de cape over de schouders.
 I put Jan/him the cloak on the shoulders
 b. De cape hangt Jan_{dat}/hem_{dat} over de schouders.
 the cloak hangs Jan/him on the shoulders

Given the analysis in (2b), we can account for the fact that speakers of Standard Dutch do not accept example (1) by assuming that the pertinent functor TO is not

¹ This requires a reformulation of Chomsky’s (1986) barrier theory such that left-branch extraction is possible from at least some specifier positions (see also Belvin and Den Dikken, this volume). We leave this for future research, while noting that something of the sort is independently needed in the frameworks of Kayne (1994) and Chomsky (1995). We hope that, taking the structure in (2b) as an intermediate step in the derivation, the relative surface order of the dative and the accusative NP can ultimately be made to follow from proposals involving equidistance (Chomsky, 1993). Some work is still to be done in this respect, however. Compare note 2 for an alternative approach to this problem.

available in Standard Dutch. The question that arises, then, is why the possessive dative constructions in (3) are not excluded in Standard Dutch. In order to answer this question, it is important to realize that (3) has the *bij*-alternate in (4), which has been discussed extensively in Corver (1990, 1992).

- (4) a. Ik hang de cape *bij* Jan/hem over de schouders.
 I put the cloak with Jan/him on the shoulders
 b. De cape hangt *bij* Jan/hem over de schouders.
 the cloak hangs with Jan/him on the shoulders

What we would like to propose is that the possessive dative constructions in (3) are derived from the constructions in (4) by incorporation of the phonetically empty counterpart of the preposition *bij*, BIJ, into the verb. We will provisionally assume the base structure in (5a), in which BIJ acts as the possessive functor that expresses the possession relation between NP₁ and NP₂, by analogy with the analysis of the construction in (1). The complete BIJ-phrase is selected by the locational preposition P_{loc}. In overt syntax, the BIJ-PP must at least be moved into SpecP_{loc}P, as in (5b), which gives rise to the constructions in (4) (cf. note 9 for a tentative answer to the question why this movement must apply overtly). Subsequently, BIJ may incorporate into the verb, as in (5c), which gives rise to the possessive dative constructions in (3). Note in passing that, in analogy with the structure in (2b), we assume that incorporation is preceded by movement of the BIJ-NP into the specifier of some FP. This accounts for the fact that the dative NP *Jan* precedes the accusative object *de cape* in (3a).²

- (5) a. ... V ... [_{pp} spec P_{loc} [_{sc} NP₁ [BIJ NP₂]]]
 b. ... V ... [_{pp} [BIJ NP₂]_j P_{loc} [_{sc} NP₁ t_j]]
 c. ... BIJ_i+V [_{fp} [t_i NP₂]_j F ... [_{pp} t_j P_{loc} [_{sc} NP₁ t_j]]]

Movement of the *bij*-PP is possible only if it constitutes a maximal projection (given that only heads and maximal projections can be moved). This can be ensured if we assume that SCs have the structure in (6), where NP is the external argument of the SC. Hence, the *TO*-phrase in (2), and the P_{loc}- and *BIJ*-phrase in (5) are in fact more complex. The question that arises is whether the external argument has been moved into SpecFP, or whether it is base-generated

² We could also assume that the reordering is the result of a subsequent movement of the NP *Jan* into SpecAGR_{IO}P, which must then be higher than SpecAGR_{DO}P by stipulation, as in Zwart (1993), for checking structural dative Case. That structural dative Case is involved is clear from the fact that (4a) allows for semi-passivization, in which dative Case is absorbed and the possessive object is promoted to subject (cf. Broekhuis and Cornips, 1994, for further discussion):

(i) Jan/Hij kreeg de cape over de schouders gehangen.
 Jan/he got the cloak on the shoulders hung
 'Jan/He has been put the cloak on the shoulders.

there. The data we will present in Sections 2.3 and 3 suggest that the latter is correct.³

(6) Small Clause structure: $[_{FP} NP F [_{XP} X (YP)]$

Summarizing, the difference between (1) and (3) is that, underlyingly, the dative NPs are the object of the empty possessive functors *TO* and *BIJ*, respectively. If the functor is *TO*, the functor phrase is the complement of the verb, but if the functor is *BIJ*, it is the complement of a locational preposition. The eastern varieties of Dutch allow for both the *TO*- and the *BIJ*-phrase, whereas Standard Dutch has the *BIJ*-phrase only, for reasons unclear.⁴

In this paper, constructions such as (3) and (4) will be our main concern: we will demonstrate that various interesting properties of these constructions follow from our proposal in (5). Since both constructions are derived from the complex locational (C*Loc*-)construction in (5a), by hypothesis, we will henceforth refer to them as the C*Loc*_{dat}- and the C*Loc*_{bij}-construction, respectively. The paper is organized as follows. In Section 2, we will discuss our proposal in (5) in more detail, slightly modifying it as we proceed. If the proposal is correct, we expect that the C*Loc*_{bij}- and the C*Loc*_{dat}-construction exhibit at least some syntactic similarities. In Section 3, it will be shown that this is indeed the case. In Section 4, we will discuss some additional restrictions on the occurrence of especially the C*Loc*_{dat}-construction. In Section 5, finally, we will briefly discuss what we will call the locational *have*-construction in the light of our present proposal.

³ In this connection, we would like to refer to Broekhuis and Van Dijk (1995), where it has been argued that at least in the perfect tense the external argument of the main verb is not generated as the specifier of the main verb. Here we claim that this assumption should be extended to all tenses and categories (see also Hoekstra, 1994, for a slightly more complex proposal that amounts to the same thing). Although we believe that the structure in (6) is basically correct, it must be noted that nothing crucially hinges on it: depending on the overall structure of the theory, other proposals may work equally well.

⁴ Note that this implies that more than one abstract functor can be involved in the (nonstandard) Dutch dative constructions. We do not consider this a problem since the overt prepositions also differ. In fact, in addition to *BIJ* and *TO*, we must assume an abstract functor *VOOR*, which enters into the beneficiary construction (cf. the examples in (i)). Similarly, it must be noted that Standard Dutch has the dative alternation with goal-arguments (cf. (ii)). If we assume that (iib) is derived from (iia) by incorporation of a functor that is the abstract counterpart of the preposition *aan* 'to', then this functor cannot be the same as the abstract functor *TO* discussed in the main text.

- (i) a. Ik kocht een boek voor Jan. (Standard/Eastern Dutch)
I bought a book for Jan
- b. Ik kocht Jan een boek (Eastern Dutch)
- (ii) a. Ik gaf een boek aan Jan. (Standard/Eastern Dutch)
I gave a book to Jan
- b. Ik gaf Jan een boek. (Standard/Eastern Dutch)

2. The proposal

In this section, we will discuss the proposal in (5) in more detail. Special attention will be paid to the syntactic role of the *bij*-phrase in the CLoc_{bij} -construction. Corver (1990, 1992) has convincingly shown that the *bij*-phrase and the locational PP form a constituent in the CLoc_{bij} -construction. Further, he claims that the *bij*-phrase is an adjunct to the locational PP. Under standard assumptions (e.g. the Bounding Theory in Chomsky, 1986), this would predict that the *bij*-phrase is an island for movement, and hence it would not be consistent with our analysis of the CLoc_{dat} -construction in (5c), which involves head-movement across the boundary of the *bij*-phrase. Our claim in (5a), according to which the *bij*-phrase originates as the complement of the locational preposition, is of course easier to reconcile with bounding theory. Before we proceed with comparing the two claims, it must be noted that the analysis to be developed is only intended to apply to cases that involve inalienable possession; we return to this in Section 4.1.⁵

2.1. The constituency of the *BIJ*-phrase and the locational PP

The *bij*-PP is clearly not an argument of the verb into which the preposition incorporates. This is evident from the example in (7). Given the fact that the PP *over het gezicht* must be present, it must be this PP that acts as the verbal complement, whereas the optionality of the *bij*-PP suggests that it is an adjunct (Corver, 1990, 1992).

(7) Het zweet liep (bij de sporter) (*over het gezicht).

The sweat ran with the sportsman over the face

Nevertheless, Corver has convincingly shown that the *bij*-phrase and the locational PP form a constituent, which is clear from the fact that the complex locational phrase can be topicalized as a whole, as is illustrated in (8). Other constituency tests that can be applied successfully are clefting, pronominalisation and coordination. From these facts, Corver concludes that the *bij*-phrase is an adjunct to the locational phrase.

⁵ Another problem, to which we return in Section 3, is that the discussion will often be complicated by the fact that *bij*-phrases may have several syntactic functions (cf. Corver, 1990/2, for extensive discussion). Consider for instance the examples in (i). In (ia), the first *bij*-phrase *bij mijn ouders* is an adverbial phrase of place, and since the verb *leggen* 'to put' compulsorily takes a locational SC as its complement, the *bij*-phrase in (ib) has the same function as the complex locational PP (*bij Jan*) *op de schouders* in (ia). As a result, we are often dealing with structurally ambiguous examples, which may be difficult to distinguish. Further, speakers occasionally differ with respect to which syntactic uses they allow for in a given example, so that this may be a source of syntactic variation among speakers.

- (i) a. Ik zet bij mijn ouders het kind bij Jan op de schouders.
 I put at my parent('s place) the child with Jan onto the shoulders
 'I put the child onto Jan's shoulders at my parent's place.'
- b. Ik leg het kind bij Jan.
 I put the child with Jan

- (8) a. Bij Jan over de schouders hang ik een cape.
 With Jan on the shoulders put I a cloak
 b. Bij Jan over de schouders hangt een cape.
 With Jan over the shoulders hangs a cloak
 c. Bij de sporter over het gezicht loopt nog geen zweet.
 With the sportsman over the face runs yet no sweat

2.2. The transparency of the *bij*-phrase in the *CLoc_{bij}*-construction

According to a barrier theory such as outlined in Chomsky (1986), the *bij*-PP should constitute a barrier for movement if it is indeed an adjunct. This would be inconsistent with our analysis of the *CLoc_{dat}*-construction in (5c), since then extraction of the prepositional head *bij* should be blocked. However, the conclusion that the *bij*-phrase is an island for movement is clearly wrong, since Corver himself has amply demonstrated that the *bij*-phrase is transparent for movement processes in the *CLoc_{bij}*-construction. Consider the relative clauses in (9) that correspond to the examples in (8).

- (9) a. de jongen waar_i ik de cape bij *t_i* over de schouders hang
 b. de jongen waar_i de cape bij *t_i* over de schouders hangt
 c. de sporter waar_i het zweet bij *t_i* over het gezicht loopt

In these examples, the relative pronoun *waar* has been extracted from the *bij*-PP (a case of R-extraction, discussed in Van Riemsdijk, 1978) and the result is fully grammatical. From this, we may probably conclude that extraction of the prepositional head of the *bij*-phrase should be allowed for, too, unless it could be shown that R-extraction has a special status for Bounding Theory. This, however, seems not to be the case.

In the examples in (9), the complex locational phrase acts as a verbal complement. These phrases can also be used as a locational adjunct, as in example (10a). That the phrase *bij Marie op schoot* is an adjunct is clear from the fact (i) that is optional (cf. *Het kind heeft vreselijk gehuild*), (ii) that it need not be immediately adjacent to the verb in clause-final position, as in (10b), and (iii) that it can be extraposed, as in (10c). Furthermore, the example in (10a) can be paraphrased by means of the so-called *en doet dat* ...-test, as in (10d), which unambiguously shows the adjunct-status of the complex PP.

- (10) a. [Bij Marie op schoot] heeft het kind vreselijk gehuild.
 with Marie on-the lap has the child terribly cried
 b. Het kind heeft [bij Marie op schoot] vreselijk gehuild.
 c. Het kind heeft vreselijk gehuild [bij Marie op schoot].
 d. Het kind heeft vreselijk gehuild
 The child has terribly cried
 en het deed dat bij Marie op schoot.
 and it did that with Marie on-the-lap

Given the fact that we are dealing with an adjunct in (10), it does not come as a surprise that extraction of a relative pronoun from the *bij*-phrase is impossible, as in (11a).⁶ And, given the hypothesis that the dative alternate involves extraction of the preposition from the *BIJ*-phrase, it is correctly predicted that (11b) is excluded as well. For completeness, note that the *bij*-phrase can also be used as a locational adverbial adjunct in isolation, and that in that case it also acts as an island for R-extraction of the relative pronoun (but see note 6). This is illustrated in (12), in which the complement of the second *bij*-phrase acts as the possessor of the locational complement and the first *bij*-phrase is an adverbial phrase.

- (11) a. *Het meisje waar_i het kind thuis vreselijk bij *t_i* op schoot gehuild heeft.
 the girl where the child at-home terribly with on-the-lap cried
 has
 b. *Het kind heeft haar_{dat} op schoot vreselijk gehuild.
 the child has her on-the-lap terribly cried
- (12) a. dat ik het kind bij mijn tante bij Jan op de schouders heb gezet.
 that I the child at my aunt('s place) with Jan on the shoulders have put
 b. *de tante waar_i ik het kind bij *t_i* bij Jan op de schouders heb gezet.
 the aunt where I the child at with Jan on the shoulders have put

The fact that the extraction of the relative pronoun is not possible across an adjunct boundary casts doubt on the idea that the *bij*-phrase is an adjunct in the CLoc_{bij}-construction.

2.3. The syntactic position of the *bij*-phrase: Postpositional phrases

As we have seen, the assumption that the *bij*-phrase in the complex locational phrase is an adjunct leaves the transparency of the *bij*-phrase unexplained. We can solve this transparency problem by assuming (i) that *bij*-phrase is not an adjunct to the

⁶ Extraction of the full *bij*-phrase is correctly predicted to be impossible as well (cf. the discussion of the examples in (19) in Section 3.1). In example (11a), we added the locational adverb *thuis* 'at home' in order to exclude an (independent) adverbial reading of the *bij*-PP (cf. also Corver, 1990/2), since R-extraction of a relative pronoun from an adverbial *bij*-phrase is occasionally accepted by our informants. This is illustrated in example (ib), which we reject ourselves but is more or less accepted by some of our informants, and example (iib), taken from Corver (1990), which is widely accepted. We will return to cases such as (iib) in Section 4.1, where we will contest the adjunct status of the *bij*-phrase.

- (i) a. Jan heeft het gedicht bij Marie voorgedragen.
 Jan has the poem at Marie('s place) recited
 b. 'het meisje waar_i Jan het gedicht bij *t_i* heeft voorgedragen
- (ii) a. Jan heeft bij Marie geslapen.
 Jan has at Marie('s place) slept
 b. het meisje waar_i Jan bij *t_i* geslapen heeft.

locational PP, but that the *bij*-phrase and the (alleged) prepositional object underlyingly make up a constituent selected by the locational preposition, as in (5a), and (ii) that the *bij*-phrase is ultimately moved into SpecP_{loc}P.⁷ The transparency of the *bij*-phrase should then be made to follow from the fact that it acts as the complement of the locational preposition, i.e. occupies an argument position, in the base (cf. note 1).

The assumptions in (i) and (ii) imply an analysis of the CLoc_{bij}-construction as indicated in (13a), in which G is a functional head associated with the locational predicate that takes the accusative NP as its external argument.⁸ The corresponding CLoc_{dat}-construction can now be derived by moving the BIJ-phrase into the specifier of some higher FP, followed by incorporation of BIJ into the verb, as indicated in (13b). (Note that the movement of the BIJ-phrase into FP can now be motivated by considerations dealing with the HMC; if incorporation of BIJ into the verb were to take place from the position of *bij* in (13a), at least the functional head G would be crossed.)

- (13) a. ... V [_{GP} NP_{acc} G [_{PP} [_{PP} *bij* NP]_j [_{PP} P_{loc} [_{SC} NP *t_j*]]]]]
 b. ... BIJ_i+V [_{FP} [_{PP} *t_i* NP]_j F [NP_{acc} G [_{PP} *t_j* [_{PP} P_{loc} [_{SC} NP *t_j*]]]]]]]

If we assume that SpecPP functions as an escape-hatch for movement (which would be a reformulation of Van Riemsdijk's account of R-extraction from PP), the proposals in (13) also provide an account for the fact that the CLoc_{bij}-construction and its dative alternate give rise to a marginal result if the locational phrase is postpositional, as in (14). The marginality of example (14b) follows from the fact that the landing site of the *bij*-phrase is occupied by the NP *de armen*; the impossibility of the dative alternate in (14c) in its turn would then follow from the fact that movement of the BIJ-PP into FP crosses a potential landing site, i.e. the position filled by the NP *de armen*.⁹

⁷ Corver (p.c) notes that modifiers of the locational PP may precede the *bij*-phrase. This is illustrated in (i). If the adjunct *diep* is adjoined to the locational PP, this falls out from our proposal since the *bij*-phrase occupies SpecPP.

(i) De arts stak zijn vinger diep bij Marie in de keel.
 the doctor put his finger deep with Marie into the throat
 'The doctor put his finger deep into Marie's throat.'

⁸ Cf. the discussion of (6) in Section 1. Note that the *bij*-phrase, being the predicate of a SC too, should also be accompanied by a functional head; in the structures in (13), we have suppressed this for reasons of simplicity.

⁹ Although it remains mysterious why the NP *de armen* may move overtly in (14a), it would follow from Chomsky's (1993) Checking Theory that it applies for morphological reasons, i.e., for checking its Case feature with the prepositional head. If this assumption is on the right track, it would follow that SpecP_{loc}P is a Case-position. From this, it would subsequently follow that in (13a,b) the (trace of) the BIJ-phrase occupies a Case-position. Although this may look strange at first sight, this would be consistent with analyses of locative inversion, according to which moving the predicate of a Small Clause into a Case position indirectly checks the Case feature of the subject of the Small Clause (cf. Hoekstra and Mulder, 1990, and references cited there). Now, if we assume that locative inversion must apply in overt syntax, the obligatory nature of the movement of the BIJ-phrase in the locational construction would follow. The reason for this may be that application of locative inversion is not detectable, and therefore blocked, if applied after SPELL-OUT (cf. Broekhuis, Cornips and De Wind, 1996 for further discussion).

- (14) a. Ik duw het kind Jans armen in.
 I push the child Jan's arms into
 b. ?*Ik duw het kind bij Jan de armen in.
 I push the child with Jan de arms into
 c. *Ik duw Jan het kind de armen in.
 I push Jan the child the arms into

3. Predictions: Extraction possibilities

3.1. Beware of structural ambiguities!

Adopting the hypothesis that SpecPP acts as an escape-hatch for movement, we will provide more evidence for the analyses of the CLoc_{bij}- and CLoc_{dat}- construction in (13) in this section. But before we start discussing the predictions that follow from these analyses, we want to stress that judgments may be affected by the fact that the *bij*-phrase can have various syntactic functions (cf. also note 5 and Section 2.2). For instance, if we are indeed correct in claiming that the CLoc_{bij}-construction is not possible in the case of postpositional PPs, the acceptability of example (15a) immediately shows that the *bij*-phrase can also occur as a clausal adjunct. Further evidence that we are indeed dealing with a clausal adjunct in (15a) is that R-extraction is blocked in (15b), and that the possessive interpretation is not as prominent as in the other cases: the *bij*-phrase rather acts as a restrictor on the contention expressed by the remainder of the clause (*as far as Marie is concerned*, ...). And, as expected, the possessive dative alternate is not available either (cf. (15c)). For completeness, note the contrasts between (15b,c) and (16b,c).¹⁰

- (15) a. dat de arts de naald bij Marie de arm in duwt.
 that the doctor the needle with Marie the arm into pushes
 b. ?*het meisje waar_i de arts de naald bij *t_i* de arm in duwt
 c. ?*dat de arts Marie de naald de arm in duwt.
 (16) a. dat de arts de naald bij Marie in de arm duwt.
 that the doctor the needle with Marie into the arm pushes
 b. het meisje waar_i de arts de naald bij *t_i* in de arm duwt
 c. dat de arts Marie de naald in de arm duwt.

¹⁰ Of course, if the *bij*-phrase in (15) is a clausal adjunct, we predict that the *bij*-phrase cannot be Pied Piped under Topicalization of the locational phrase *de arm in*. As is illustrated in (i), however, Topicalization is not a very useful test in these cases, since postpositional phrases are marginal in topicalized position, anyhow. Nevertheless, the prediction seems to be correct given that (iia) is worse than (ia). For completeness, it can be noted that replacement of the postpositional phrase in (ia,b) by a prepositional one gives rise to a grammatical result, as expected.

(i) a. ?* [*Marie's arm in*] duwde de arts een naald.
 Marie's arm into pushed the doctor a needle
 b. *[*Bij Marie de arm in*] duwde de arts de naald.

Given the fact that the phrase *bij Marie* acts as an independent adjunct in (15a), it may be the case that example (16a) is structurally ambiguous between the CLoc_{bij}-construction and a locational construction, in which the phrase *bij Marie* acts as an independent adjunct. That the latter interpretation is indeed possible is perhaps indicated by the acceptability of (17a), which readily allows for an interpretation of the *bij*-phrase as a restrictor on the contention. However, given the fact that the *bij*-phrase can be extracted from the complex locational phrase (cf. Sections 3.2 and 3.3), it might in principle be the case that the surface position of the *bij*-phrase is the result of what we will conveniently call ‘scrambling’. The fact that R-extraction is excluded in (17b) does not provide us with a conclusive clue about the status of the *bij*-phrase, since ‘scrambling’ generally has a ‘freezing’-effect. (We will occasionally return to these ‘needle-constructions’ in the notes below; in the main text we will focus on the clear cases.)

- (17) a. dat de arts *bij Marie* de naald in de arm duwt.
 b. *het meisje waar_i de arts *bij t_i* de naald in de arm duwt

3.2. Extraction of the *bij*-phrase from the complex locational phrase

Given our analysis of the CLoc_{bij}-construction in (13a), there is no reason to assume that the *bij*-phrase cannot be extracted from the complex locational phrase: it occupies SpecP_{loc}P, and extraction of specifiers is generally possible. As is illustrated by means of the relative clauses in (18), extraction of the *bij*-phrase is indeed possible (cf. the examples in (8); recall that extraction from the *bij*-phrase is possible, too, as has been demonstrated in (9)).

- (18) a. de jongen [*bij wie*]_i ik een cape *t_i* over de schouders hang
 the boy with whom I a cloak on the shoulders put
 b. de jongen [*bij wie*]_i een cape *t_i* over de schouders hangt
 the boys with whom a cloak over the shoulders hangs
 c. de sporter [*bij wie*]_i nog geen zweet *t_i* over het gezicht loopt
 the sportsman with whom yet no sweat over the face runs

However, if the complex locational phrase acts as an adjunct, as in the examples in (10), extraction of the *bij*-phrase is predicted to be ungrammatical. The relative acceptability of (19a) perhaps indicates that the *bij*-phrase can marginally be interpreted as an independent clausal adjunct, which would be consistent with the facts (i) that the acceptability of (19a) is not affected by the insertion of an adverb between the PP *op schoot* and the clause-final verbs and (ii) that the acceptability of (19a) does decrease if an additional locational adverb such as *hier* ‘here’ is added, as in (19b). A more extensive discussion of the extraction of the *bij*-phrase, which seems to be in accordance with our predictions, can be found in Corver (1990, 1992).

- (19) a. ??het meisje [*bij wie*] het kind *t_i* op schoot (vreselijk) gehuild heeft
 the girl with whom the child on the-lap terribly cried has
 b. ??*het meisje [*bij wie*] het kind hier *t_i* op schoot gehuild heeft

3.3. Extraction of the locational phrase

Generally, it is assumed that only heads and maximal projections can be moved (Chomsky, 1986; Kayne, 1994). This implies that in (13a) movement of the locational PP involves Pied Piping of its specifier. Provided that the *bij*-phrase must occupy this specifier position, movement of the locational phrase in isolation would be predicted to be impossible. Now, compare the Topicalization examples in (20) (which we have given in the perfect tense to avoid possible interference from the application of PP-over-V to the *bij*-phrase). Example (20c) indeed seems to have a degraded status under neutral intonation (the example improves slightly if the *bij*-phrase or the nominal complement of the locational preposition is assigned heavy stress).

- (20) a. Ik heb het kind bij Jan op de schouders gezet.
 I have the child with Jan onto the shoulders put
 b. [_{PP} [Bij Jan] [_{PP} op de schouders]]_i heb ik het kind *t_i* gezet.
 c. *[[_{PP} Op de schouders]_i heb ik het kind [_{PP} [bij Jan] *t_i*] gezet.

However, as is illustrated in (21), if the *bij*-PP precedes the accusative NP *het kind*, Topicalization of the locational PP in isolation improves. This may be accounted for by assuming that the *bij*-PP can be scrambled across the accusative object, so that the structure of (21a) is as indicated in (21b). Note, however, that the marginal status of (21a) indicates that ‘scrambling’ of the *bij*-phrase is apparently not a favoured option. In fact, we even tend to interpret the *bij*-PP in (21a) as an independent adjunct, i.e. as a restrictor on the contention expressed by the clause. (Note that this is also the case in the ‘scrambled’ counterpart of (20a): *Ik zet bij Jan het kind op de schouders*.) Judgments can even be made sharper by adding an adverbial *bij*-phrase, since this blocks the adjunct reading of the *bij*-phrase in (21a), as in (21c); this example therefore indicates that ‘scrambling’ of the *bij*-phrase is virtually impossible.¹¹

¹¹ The conclusion that ‘scrambling’ is not a favoured option or is even excluded is relevant for our discussion in Section 3.1, where we suggested that the *needle*-construction in (ib) may in principle be derived from (ia) by means of ‘scrambling’. Our judgments on the corresponding Topicalization constructions in (ic,d), however, may indicate that this is not correct: the marginal status of (ic) indicates that we are dealing with a CLoc_{bij}-construction in (ia); the fact that (id) is fully acceptable, on the other hand, suggests that we are indeed dealing with an independent *bij*-adjunct in (ib). This leaves unexplained, however, why (ic) cannot be derived from (id) by placing the direct object *de naald* in front of the *bij*-adjunct, an option which is generally possible in Dutch (cf. also the acceptability of (15a), in which the *bij*-PP arguably acts as an independent adjunct). We leave this as a problem.

- (i) a. dat de arts de naald bij Marie in de arm heeft geduwd.
 that the doctor the needle with Marie into the arm has pushes
 b. dat de arts bij Marie de naald in de arm heeft geduwd.
 c. ??In de arm heeft de arts de naald bij Marie geduwd.
 d. In de arm heeft de arts bij Marie de naald geduwd.

- (i) a. De man bij wie ik het kind op de schouders zet.
the man with whom I the child on the shoulders put
b. ?*De man bij wie op de schouders ik het kind zet.
- (ii) a. [Bij wie op schoot] heeft het kind gehuild?
with whom on-the lap has the child cried
b. [Bij wie op de schouders] zit het kind?
with whom on the shoulders sits the child
c. ??[Bij wie tussen de tanden] zit het zand?
with whom between the teeth sits the sand

Wh-movement. This, however, leaves the unacceptability of (24c) unexplained. We return to the ungrammaticality of these examples in the following subsection.

- (24) a. Ik heb het kind bij Jan op de linker knie gezet.
 I have the child with Jan on the left knee put
 b. ?*[_{PP} Op welke knie]_i heb je het kind [_{PP} [bij Jan] *t_i*] gezet?
 on which knee have you the child with Jan put
 c. *[_{PP} [Bij Jan] [_{PP} op welke knie]] heb je het kind gezet?

3.4. *R-extraction from the locational phrase*

In Van Riemsdijk (1978), it has been claimed that R-extraction from PP proceeds via an escape hatch within PP. Above, we have assumed that this escape-hatch can be identified with SpecP_{loc}P. Our proposal in (13a) predicts, then, that R-extraction from the locational phrase is excluded in the CLoc_{bij}-construction, since this position is already occupied by the *bij*-phrase. (See the discussion of the examples in (14) in Section 2.3, where a similar argument was used to account for the fact that the CLoc_{bij}- and CLoc_{dat}-construction are incompatible with postpositional phrases.) That this prediction is indeed borne out is illustrated in (25b). Since SpecP_{loc}P is occupied by the trace of the moved BIJ-PP in the CLoc_{dat}-construction, the same prediction follows for the possessive dative alternate of (25b) in (25c). Note that the examples in (25c) involve R-extraction of a relative pronoun but that similar examples could have been given with interrogative pronouns.

- (25) a. Ik heb het kind bij Jan op de linker knie gezet.
 I have the child with Jan on the left knee put
 b. ?*de knie waar_i ik het kind [_{PP} [bij Jan] [_{PP} op *t_i*]] heb gezet
 the knee where I the child with Jan on have put
 c. ?*de knie waar_i ik Jan het kind op *t_i* heb gezet
 the knee where I Jan the child on have put

Occasionally, Corver (1990, 1992) provides examples that seem to be at odds with our judgments. Probably, these examples should not be viewed as cases of the CLoc_{bij}-construction, and be reanalysed as involving a *bij*-phrase that acts as an independent adjunct.¹³

¹³ Consider the *needle*-constructions in (i). The indicated contrasts are probably due to the fact that the constructions in which the *bij*-phrase follows the direct object are preferably construed as CLoc_{bij}-constructions, whereas the order in which the *bij*-phrase precedes the direct object involves an independent clausal adjunct (cf. the discussion of the examples in note 11).

- (i) a. dat de arts de naald bij Marie in de linkerarm duwt.
 that the doctor the needle with Marie into the left arm pushes
 b. dat de arts bij Marie de naald in de linkerarm duwt.
 c. ??de arm waar_i de arts de naald bij Marie in *t_i* duwt
 the arm where the doctor the needle with Marie into pushes
 d. de arm waar_i de arts bij Marie de naald in *t_i* duwt
 the arm where the doctor with Marie the needle into pushes

Let us now return to the ungrammatical examples in (24b,c) in Section 3.3. In Chomsky (1993), it has been argued that *wh*-elements must undergo raising at LF. If we assume that this movement of the *wh*-elements in (24b,c) must proceed through SpecP_{loc}P, i.e. is subject to bounding theory (Chomsky, 1993; Watanabe, 1991), and must hence apply in a similar fashion as the cases of R-Extraction in this subsection, the impossibility of having a *wh*-element within the locational PP in the CLoc_{bij}-construction follows: since SpecP_{loc}P is occupied by the *bij*-phrase, LF-movement of the *wh*-element is blocked.¹⁴ From this, it would follow immediately that the locational PP cannot contain a *wh*-element in the dative alternate of (24c) either, since in that case SpecP_{loc}P contains the trace of the BIJ-phrase. As is illustrated in (26), this prediction is indeed correct.

- (26) a. Ik zet Jan het kind op de linkerknie.
 I put Jan the child on the left knee
 b. *[Op welke knie]_i zet je Jan het kind *t_i*?
 on which knee put you Jan the child

3.5. Complex particle constructions

We conclude the discussion of our proposals in (13) with a brief note on the complex particle construction (i.e. constructions that involve a particle such as *neer* 'down' that takes a locational SC as its complement; cf. Den Dikken, 1995). Den Dikken (p.c.) has pointed out that in this construction the CLoc_{bij}-construction has no dative alternate, as is illustrated in (27b). This would be consistent with our analysis in (13), if it could be shown that the addition of a particle makes the locational phrase into an island for extraction from the complement of the locational PP. If our judgments on the examples in (28) are correct, this may indeed be the case,

Note that, given the possibility of analysing the *bij*-phrase in (i) as a clausal adjunct, it would not be surprising if some speakers of Dutch judge example (25b) as far better than (25c). If so, this would be due to their ability of analysing (25b) in the same way as the *needle*-constructions in (i) (i.e. with an interpretation of the *bij*-phrase as an independent adjunct; cf. the discussion of the examples in (21)). Crucially, however, these speakers should agree on our judgment on example (25c). If our discussion of the *wh*-construction in (24b,c) in the main text below is on the right track, a similar reasoning can perhaps be given to account for the fact that (24b) sounds better than (24c).

¹⁴ For completeness, note that the *needle*-constructions in (i) behave differently, which again provides evidence that the *bij*-phrase is an independent adjunct in (ib). The degraded status of (ic) follows from our assumption that the *bij*-phrase cannot be scrambled out of SpecP_{loc}P and the fact that the *bij*-phrase can only be marginally interpreted as an independent *bij*-adjunct if the accusative object *de naald* 'the needle' precedes it (cf. the discussion of the examples in note 11).

- (i) a. dat de arts de naald bij Marie in de linkerarm duwt.
 that the doctor the needle with Marie into the left arm pushes
 b. dat de arts bij Marie de naald in de linkerarm duwt.
 c. ??In welke arm duwt de arts de naald bij Marie?
 in which arm pushes the doctor the needle with Marie
 d. In welke arm duwt de arts bij Marie de naald?

although it must be noted immediately that some informants consider these examples acceptable.¹⁵

- (27) a. Ik zet het kind bij Jan op de knie neer.
 I put the child with Jan on the knee down
 'I put the child down on Jan's knee.'
 b. *Ik zet Jan het kind op de knie neer.
- (28) a. Ik zet de koffer tussen de stoelen neer.
 I put the suitcase between the chair down
 'I put the suitcase down between the chairs.'
 b. ?daartussen_i zet ik de koffer *t_i* neer.
 there-between put I the suitcase down
 c. *?daar_i zet ik de koffer tussen *t_i* neer.

Although the complex particle construction has been thoroughly studied in Den Dikken (1995), the construction is still in need of more research. We think that especially the claim in Broekhuis (1992) that examples such as (28a) are in fact structurally ambiguous between a reading in which the locational PP acts as the complement of the particle and a reading in which it acts as an independent adjunct deserves more attention.¹⁶ If this claim turns out to be correct, it would provide us with a partial account for the difference in relative judgments between (27b) and especially (28b).

¹⁵ Further, it must be noted that Den Dikken (1995) gives examples such as (i) as fully acceptable. If real, the difference in acceptability between example (i) and example (28b) recalls Pesetsky's (1987) distinction between D-linked and non-D-linked constituents. Cf. Den Dikken (1995: 62) for some comparable, but puzzling data in English.

(i) [tussen die stoelen]_i zet ik de koffer *t_i* neer.
 between these chairs put I the suitcase down

¹⁶ This claim is based on the binding possibilities of the reciprocal *elkaar* in (i). If the PP *naast elkaar* 'next-to each other' precedes the particle verb *neerleggen* 'to put down', the sentence is ambiguous: either the subject of the clause *zij* 'they' or the accusative NP *de boeken* 'the books' may act as the antecedent of the reciprocal. Given that *elkaar* is not a long-distance anaphor, we would expect the latter but not the former under Den Dikken's analysis of the complex particle construction. However, if (ia) does involve an independent adverbial argument, we would correctly predict (ia) to be possible as well. Given that there is a general ban on extraposition of SC-predicates, we also account for the judgments in (ic) and (id). If the PP *naast elkaar* is extraposed, we are not dealing with a SC-PP, so that the accusative NP no longer acts as the subject of the locational PP, but as the subject of the particle itself. Consequently, this NP does not c-command the reciprocal and (id) is correctly predicted to be impossible. The subject of the clause, on the other hand, still c-commands the reciprocal, so that (ic) is predicted to be grammatical. Similar conclusions can be reached if we consider the binding behaviour of the Dutch long-distance anaphor *zich* (cf. Broekhuis, 1992: §7.3 for details).

(i) a. dat zij_i de boeken naast elkaar_i neer leggen.
 that they the books next-to each other down put
 'that they put the books down next to each other.'
 b. dat zij de boeken_i naast elkaar_i neer leggen.
 c. ?dat zij_i de boeken neer leggen naast elkaar_i.
 d. *dat zij de boeken_i neer leggen naast elkaar_i.

3.6. Conclusion

In this section, we have demonstrated that our analysis of the CLoc_{bij}-construction and its dative alternate in (13) provides a neat account of a complex set of data involving extraction from the complex locational phrase, as soon as we realize that some apparent cases of the CLoc_{bij}-construction (e.g. the *needle*-constructions discussed in the notes above) in fact involve an independent adverbial *bij*-adjunct.

4. Additional restrictions on the CLoc_{dat}-construction

4.1. Alienable and inalienable possession

The cases discussed above that allow for the possessive dative alternate all involve inalienable possession (which generally involves body parts or parts of clothing). A similar alternation does not arise in the case of alienable possession. Compare the examples in (29) and (30). (Note that, in the eastern Dutch dialects, (30b) is ungrammatical under the intended possessive reading of the dative, but is acceptable under a beneficiary reading.)

- (29) a. Ik zet de baby bij Jan/hem op de schouders.
 I put the baby with Jan/him on the shoulders
 b. Ik zet Jan_{dat}/hem_{dat} de baby op de schouders.
 (30) a. Ik zet de baby bij Jan/hem op bed.
 I put the baby with Jan/him on the-bed
 b. ?*Ik zet Jan_{dat}/hem_{dat} de baby op bed. (dative = possessor)

A rather natural interpretation of (30a) is that the complement of the *bij*-phrase is the possessor of *bed*. However, contrary to what is the case in (29a), this does not exhaust the semantic contribution of the *bij*-phrase, since it is also implied that the person denoted by *Jan/hem* is situated on the bed himself, i.e. whereas (29a) can be paraphrased by means of (31a), example (30a) cannot be fully paraphrased by means of (31b).

- (31) a. Ik zet de baby op Jans/zijn schouders.
 I put the baby on Jan's/his shoulders
 b. Ik zet de baby op Jans bed.
 I put the baby on Jan's bed

In fact, it may even be the case that (31b) is the wrong paraphrase of (30a): if the baby and the person denoted by *Jan/hem* are visiting their grandparents, and if the latter is playing on his grandparents' bed, (30a), but not (31b), can felicitously be used to contend that the baby is put on the grandparents' bed, too. This may well indicate that the possessive reading of (30a) is not syntactically encoded (i.e. that *bij* does not act as a functor expressing possession), but just arises as a result of our knowledge of the world/context.

In order to account for the semantic properties of (30a), there are at least two conceivable analyses (which in fact may both be correct). A first possibility is to assume that the *bij*-phrase is the locational SC predicate in (30a) and not the PP *op bed*, and hence that (contrary to what is claimed by Corver, 1990, 1992) the structure of this example differs from the one corresponding to (29a). Obviously, we need the additional assumption that incorporation of (the empty counterpart of) the preposition *bij* is possible in cases such as (29) only (which is possibly due to the difference in semantic content of the preposition; the heads of locational SCs never have phonetically empty counterparts in languages lacking locative applicative constructions (cf. Baker, 1988), such as Dutch). In this connection, it is relevant to note that the PP *op bed* can be dropped in (30a), as is illustrated in (32). The fact that extraction of a relative pronoun remains possible is not a problem either, since this is possible from locational predicates in general (cf. (33a) and (33b)).¹⁷

(32) Ik zet het kind bij Jan/hem.

- (33) a. de jongen waar_i ik de baby bij *t_i* (op bed) zet
 the boy where I the baby near in the-bed put
 b. de jongen waar_i ik de baby naast *t_i* zet
 the boy where I the baby next-to put

This analysis, according to which the *bij*-phrase is the SC predicate, also accounts for the fact that the preposition *op* can be replaced by *in* if the *bij*-phrase is present, whereas this leads to an odd result otherwise (cf. (34a) and (34b)); the preposition *in* rather requires the main verb to be the verb *leggen* 'put', as in (34c). Of course, the facts in (34b,c) follow from the selectional restriction imposed on the prepositional complement by the pertinent verbs.

- (34) a. Ik zet de baby bij Jan op bed/in bed.
 b. Ik zet de baby op het bed/?^{??}in bed.
 c. Ik leg de baby op bed/in bed.
 I put the baby with Jan on/in bed

The second analysis of (30a) would involve taking the locational PP as the SC predicate, and analysing the accusative object and the *bij*-phrase as a constituent generated in the subject position of the locative SC, as in (35). This constituent is split up in the course of the derivation by movement of the NP *de baby* into SpecAGR_{OP}. This would account for the intuition that the referents of both *Jan* and *de baby* are situated on the bed.

¹⁷ Of course, the *bij*-phrase in (30a) can also be interpreted as a clausal adjunct, but this is certainly not the case in the examples in (32) and (33a): (i) the verb *zetten* requires a locational SC (**Ik zet de baby*), and (ii) adjuncts do not allow for extraction of the relative pronoun (cf. Section 2.2).

- (35) Ik zet [_{SC} [_{bijP} de baby [_{bij} Jan]] [_{op} bed]]

Note that this analysis is comparable to the analysis of instrumental and comitative PPs in Kayne (1994: 66ff.). Perhaps this gives us a first clue why these PPs behave similarly with respect to R-extraction (cf. the discussion in note 6): both the *bij*-phrase in (36) and the *met*-phrase in (37) are part of a constituent in argument position.

- (36) a. Jan heeft bij Marie geslapen/gespeeld.
 Jan has at Marie slept/played
 b. het meisje waar_i Jan bij *t_i* geslapen/gespeeld heeft.
 (37) a. Jan heeft met Marie geslapen/gespeeld.
 Jan has with Marie slept/played
 b. het meisje waar_i Jan mee *t_i* geslapen/gespeeld heeft.

The second analysis may receive additional support from the facts in (38), which are due to Den Dikken (p.c.). Since example (38a) contains a postposition, it cannot be a case of the CLoc_{bij}-construction, if our conclusion in section 2.3 is correct (which would also be in accordance with the fact that we are not dealing with inalienable possession in (38a) – in fact, (38a) need not imply any possessive relation between *Jan* and *auto* ‘car’ at all). Given the fact that dropping the postpositional phrase *de auto in* gives rise to a marginal result (cf. (38b)), the postpositional phrase and not the *bij*-phrase must be seen as the locational predicate. Further, since the phrase *bij Jan de auto in* must be topicalized as a whole, the *bij*-phrase must be part of the locational SC and cannot be seen as a clausal adjunct, since otherwise we would wrongly predict that it could be stranded by Topicalization of the locational phrase (cf. the contrast between (38c) and (38d); recall from note 10 that postpositional phrases generally give rise to a marginal result in topicalized position). For completeness, (38e) demonstrates that R-extraction can take place from the *bij*-phrase, which shows that it does not act as an adjunct.

- (38) a. Ik duw het kind bij Jan de auto in.
 I push the child with Jan the car into
 b. ?*Ik duw het kind bij Jan.
 c. ?[Bij Jan de auto in] duw ik het kind.
 d. *[De auto in] duw ik het kind bij Jan.
 e. ?De jongen waar_i ik het kind bij *t_i* de auto in duw
 the boy where I the child with the car into push

These data are completely compatible with an analysis along the lines of (35), provided that movement of the accusative NP *het kind* into SpecAGR_{OP} strands the remnant of the complex *bij*-phrase [_{bijP} *t_i* [_{bij} Jan]] in the subject position of the SC, i.e. if the bracketed constituent in (38c) has the label SC.

Summarizing, we have claimed that the differences between the constructions involving alienable and inalienable possession are due to a difference in syntactic

structure: whereas in the case of inalienable possession an analysis along the lines of Section 2.3 (according to which the *bij*-phrase is not a complement of the main verb) seems plausible, this is not so in the case of alienable possession. Rather, in the cases of alienable possession we have discussed above, the *bij*-phrase is the SC complement of the main verb or part of the external argument of the locational SC.

4.2. Positional verbs (*zitten* 'to sit', *liggen* 'to lie', etc.)

In Section 4.1, we have seen that *bij*-phrases can be used as a locational SC predicate, and that in that case incorporation is blocked, i.e. that the construction has no dative alternate. Further, we have seen in Section 2.2 that the *bij*-phrase can also be used as a(n independent) clausal adjunct. If this is the case, the *bij*-phrase is an island for extraction.

Now, consider the examples in (39), which involve the positional verb *zitten*. The optionality of the PP in (39a) suggests that the *bij*-phrase is an adverbial adjunct. The possibility of R-extraction in (39b), on the other hand, indicates that it is not, adjuncts generally being islands for extraction. This equivocal result suggests that positional verb such as *zitten* can be used either as an intransitive or as an ergative verb, and that in the latter case the verb may take a locational SC complement (cf. Hoekstra and Mulder, 1990, and references cited there). The important thing for us to note at this moment is that (39b) has no dative alternate, as is to be expected on the basis of the discussion in Section 4.1.

- (39) a. Jan zit (bij Marie).
 Jan sits near Marie
 b. het meisje waar_i Jan bij t_i zit
 the girl where Jan near sits
 c. *Jan zit Marie_{dat}/haar_{dat}

What we would expect on the basis of the preceding discussion is that the dative alternate is possible in the locational construction, if we are dealing with inalienable possession. However, when we consider the data in (40), which we would expect to correspond nicely to the data in (29), it turns out that this expectation is not borne out; the ungrammaticality of (40b) is surprising. Apparently, (40) cannot be interpreted such that the PP *op de schouders* is the locational SC predicate. Further, it is not the case that the complex phrase must be interpreted as an adverbial adjunct, since the *bij*-phrase allows for extraction of a relative pronoun. Given the acceptability of (40c), we must therefore conclude that the *bij*-phrase acts as the locational SC. If this conclusion is correct, we can account for the ungrammaticality of (40b), by taking recourse to the assumption that incorporation of (the empty counterpart of) the locational preposition *bij* is excluded; see the discussion of (29) and (30) in Section 4.1. (The second analysis of Section 4.1 is not available, since this would give rise to the wrong interpretation, viz. that both the baby and the person denoted by *Jan/hem* are sitting on the shoulders.)

- (40) a. De baby zit bij Jan/hem op de schouders.
 the baby sits with Jan/him on the shoulders
 b. *De baby zit Jan/hem op de schouders.
 c. De man waar_i de baby bij _{t_i} op de schouders zit
 the man where the baby with on the shoulders sits

The fact that in (40a) only the *bij*-phrase can apparently act as the prepositional SC, and hence that (40a) cannot be interpreted as a CLoc_{bij}-construction, remains mysterious to us. It becomes even stranger once one realizes that both (41a) and (41b) are fully acceptable.

- (41) a. De baby zit bij Jan.
 b. De baby zit op Jans schouders.

It must be pointed out, however, that this is only the case if the positional verb indicates the *posture* of the referent expressed by the nominative NP. In their (many) extended uses (cf. Van den Toorn, 1975, for an overview), the positional verbs such as *zitten* 'to sit', *staan* 'to stand', *liggen* 'to lie', etc., do allow for the dative alternation. Consider, for instance, the following cases. (Note that the dative construction is often preferred over the complex prepositional construction, but that both seem to be fully acceptable.)

- (42) a. Het zand zit bij hem tussen de tanden.
 a'. Het zand zit hem tussen de tanden.
 the sand sits with him between the teeth
 b. Het zweet staat bij hem op het voorhoofd.
 b'. Het zweet staat hem op het voorhoofd.
 the sweat stands with him on the forehead
 c. Het racket ligt goed bij hem in de hand.
 c'. Het racket ligt hem goed in de hand.
 the racket lies him well with him in the hand

It is therefore clear that in these cases, it is not the *bij*-phrase that acts as the locational SC, but that it is rather the (second) locational PP that acts as such, which is also clear from the fact that the examples in (42) become completely ungrammatical if the latter are dropped, as in (43) (cf. also the discussion of (iib,c) in note 12). For completeness, note further that the *bij*-phrases in (42) need not be interpreted as clausal adjuncts, given the fact that they allow for extraction of a relative pronoun (cf. (44)). In Section 5, we will briefly return to the positional verbs.

- (43) a. *Het zand zit bij hem.
 b. *Het zweet staat bij hem.
 c. *Het racket ligt goed bij hem.
 (44) a. de man waar_i het zand bij _{t_i} tussen de tanden zit.
 b. de man waar_i het zweet bij _{t_i} op het voorhoofd staat.
 c. de man waar_i het racket goed bij _{t_i} in de hand ligt.

4.3. Directional verbs (*lopen* 'to walk', *springen* 'to jump', etc.)

Directional verbs often take a postpositional complement, and, as we have already discussed in Section 2.3, both the possessive *bij*-phrase and the possessive dative are impossible then, probably for independent reasons. Therefore, we restrict ourselves here to those cases that involve prepositional complements. If the directional verb expresses an actual manner of motion, e.g., if the Dutch verb *springen* can be translated by means of English *to jump*, the dative alternate often does not give rise to a fully acceptable result, although the deviance seems to be less severe than in the case of the positional verbs (see (45a')). Sometimes, the result is even completely acceptable, as in (45b'). In this connection, it must be noted that the locational PP cannot be dropped: **De kleuter sprong bij Peter*, so that we must conclude that the *bij*-phrase cannot act as a locational phrase itself, contrary to what is the case with the positional verbs (cf. the discussion in Section 4.2). Further, extraction of a relative pronoun from the *bij*-phrase is possible, so that the *bij*-phrase cannot be considered an adverbial adjunct either (cf. (46)). Since an analysis according to which *bij Peter* is part of the external argument of *op de rug* is not possible for semantic reasons, we must conclude that the examples in (45) involve complex locational constructions. The alternation is therefore what we would expect.

- (45) a. *De kleuter sprong bij Peter/hem op de rug.*
 a'. ??*De kleuter sprong Peter/hem op de rug.*
 the toddler jumped with Peter/him onto the back
 b. *Het kind sprong bij Peter/hem in de armen.*
 b'. *Het kind sprong Peter/hem in de armen.*
 the child jumped with Peter/him into the arms
- (46) a. *De jongen waar_i de kleuter bij t_i op de rug sprong.*
 the boy where the toddler with onto the back jumped
 b. *De jongen waar_i het kind bij t_i in de armen sprong.*
 the boy where the child with into the arms jumped

As we also observed with the positional verbs, the alternation is fully productive if the directional verb is used in an extended sense. Some examples are given in (47). Many other ergative verbs that are not directly related to an activity verb also allow for this alternation, as is illustrated in (48). Examples such as (47) and especially (48) often have an idiomatic flavour, which possibly explains why the CLoc_{bij}-construction, i.e. the construction with a *bij*-phrase, is less common than the dative construction.

- (47) a. *Het zweet loopt bij de sporter over het voorhoofd.*
 a'. *Het zweet loopt de sporter over het voorhoofd.*
 the sweat runs with the sportsman over the forehead
 b. (?)*De tranen springen bij Peter in de ogen.*
 b'. *De tranen springen Peter in de ogen.*
 the tears jump with Peter into the eyes

- (48) a. ?*De problemen groeien bij Peter boven het hoofd.
 De problemen groeien Peter boven het hoofd.
 The problems grow with Peter above the head
 'Peter cannot cope with his problems any more.'
- b. ?*Een veroordeling hangt bij Peter boven het hoofd.
 Een veroordeling hangt Peter boven het hoofd.
 A conviction hangs with Peter above the head
 'He has got a conviction hanging over his head.'

5. The locational *have*-construction

In Kayne (1993), it has been claimed that all occurrences of the verb HAVE are cases of a composed verb, which consists of BE and an incorporated preposition. In this section, we will consider the question whether the locational *HAVE*-construction (such as *Jan heeft het kind op de schouders* 'Jan has the child on the shoulders') is subject to this analysis. The conclusion of this section will be that this is possibly not the case.

A remarkable restriction on the CLoc_{bij}-construction and its dative alternate is that the possessor must be an animate being (which is probably due to selection restrictions imposed by the functor BIJ on its complement (= the possessor)); whereas the examples in (49) are completely acceptable, the examples in (50) are impossible (on the possession reading; (50a) is acceptable if the *bij*-phrase is construed as an adverbial adjunct).

- (49) a. Ik zet het kind bij Jan op de schouders.
 I put the child with Jan on the shoulders
 b. Ik zet Jan het kind op de schouders.
- (50) a. ?*Ik zet de asbak bij de tafel op het blad.
 I put the ashtray with the table on the top
 b. *Ik zet de tafel de asbak op het blad.

Now, consider the locational *have*-constructions in (51). (Note that the prepositional object *de schouders* in (51a) preferably appears with a possessive pronoun: *zijn schouders* 'his shoulders'. We return to the relevance of this observation below.)

- (51) a. Jan heeft het kind op de schouders
 Jan has the child on the shoulders
 b. *De tafel heeft de asbak op het blad.
 the table has the ashtray on the top

Of course, it is tempting to relate the judgments on the examples in (51a) and (51b) to those in (49b) and (50b), respectively. This is possible if we adopt the proposal by Kayne (1993) and much work in its vein (e.g. Déchaine et al., 1994; Hoekstra, 1994), according to which the verb *hebben* 'to have' is a composed verb con-

sisting of the verb *BE* and an incorporated preposition, which should be the empty preposition *BIJ* in the examples under consideration. We could further assume that, as a result of this incorporation, the verb *hebben* is able to assign accusative Case to the NP *het kind* (which *BE* is not able to do), and that the object of *BIJ*, the NP *Jan*, remains Caseless as a result, and must hence be moved into the subject position where it receives nominative Case (cf. Déchaine et al. for a slightly different approach). If something of this sort is indeed the case, we would expect that the example in (51a) has an alternate with *BE*, in which the *BIJ*-preposition shows up overtly. As is illustrated in (52), this seems not to be the case.

- (52) *?Het kind is bij Jan op de schouders.
 the child is with Jan on the shoulders

This problem becomes even clearer, once we realize that example (51a) allows for the addition of the verb *zitten* ‘to sit’, as in (53a). This example cannot be considered as a perfect tense construction since the verb *zitten* appears as an infinitive and not as the participle *gezetten*, which would be the case if the verb *hebben* were used as an auxiliary of time. Addition of the infinitive *zitten* to (52) leads to ungrammaticality of an ever higher degree, as is illustrated in (53b).

- (53) a. Jan heeft het kind op de schouders zitten.
 b. *Het kind is bij Jan op de schouders zitten.

Besides the problem that (51a) has no alternate with *zijn* ‘to be’, we noted above that there is some preference to use the possessive pronoun *zijn* ‘his’ over using the definite article *de* ‘the’ in (51a). The same is true for (53a). This may indicate that, in fact, no possession relation is involved in these examples at all, and hence that they are not derived from a complex locational construction. More evidence against such an assumption comes from the examples in (54), in which a *bij*-phrase is added. If these examples are instances of the *CLoc_{bij}*-construction, they show that the occurrence of *hebben* ‘to have’ is not due to incorporation of the possessive functor *bij*, and if these examples are cases in which the *bij*-phrase acts as the locational predicate, as in example (40), it would not be clear what functor has incorporated into *BE* to form *HAVE*.¹⁸ Consequently, it may be the case that we have to give up the idea that *HAVE* is always a composed verb, and hence also the idea that the nominative NP in (54) originates within the complement of the verb *hebben*. (Note in this connection that the nominative NP *Jan* seems not to be an argument of the complement of *hebben* ‘to have’.)

¹⁸ Of course, we cannot exclude the possibility that the incorporated element has a different source. Den Dikken, for example, suggests that, underlyingly, the nominative NP is the complement of an abstract preposition that takes the locational SC as its external argument. The burden of the proof, however, rests on those that would like to defend such a claim.

- (54) a. Jan heeft het kind bij zich op de schouders.
 b. Jan heeft het kind bij zich op de schouders zitten.
 Jan has the child with REFL on the shoulders sit

In conclusion, note that the locational *hebben* constructions in (54) do not allow for the dative alternate in (55), which indicates that incorporation of the preposition *BIJ* into *hebben* is not even possible. According to us, the ungrammaticality of these examples does not follow from some accidental property of the construction, but from the fact that the verb *hebben* ‘to have’, just as its cognate *krijgen* ‘to get’ in (56), is not able to assign dative Case, so that the NP *zich* remains Caseless (cf. Broekhuis and Cornips, 1994, for an analysis of the locational *hebben*-construction that is compatible with the conclusion in this section).

- (55) a. *Jan heeft zich het kind op de schouders.
 b. *Jan heeft zich het kind op de schouders zitten.
 Jan has REFL the child on the shoulders sit
- (56) a. Jan kreeg het kind bij zich op de schouders.
 Jan got the child with REFL on the shoulders
 b. *Jan kreeg zich het kind op de schouders.
 Jan got REFL the child on the shoulders

6. Conclusion

In this paper, we have given an analysis of the construction [*bij* NP P_{loc} NP], which is compatible with the idea that inalienable possession arises from a syntactic configuration, in which the possessor and the possessed element are the arguments of a functor P, *BIJ* in this case. The dative alternate is derived from the complex locational construction by incorporation of the functor *BIJ* into the verb. Since we have assumed that the *bij*-phrase is generated as the complement of the locational preposition and extracted from the locational PP via its specifier position, various rather intricate facts with respect to movement can be solved. We concluded with a brief discussion of Kayne’s assumption that HAVE is always a composed verb P+BE, and argued that this assumption possibly cannot be maintained in full force.

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