LUTZ GUNKEL

CAUSATIVES IN GERMAN

In this paper I argue for a unified account of causative constructions in German. The approach rests on assumptions for case assignment and subcategorization which will be independently motivated by an analysis of passive constructions. It will be shown that the difference between standard causatives and what I call *causative passives* should be analyzed as a special case of optional subcategorization: causative *lassen* optionally subcategorizes for an external argument of the embedded verb, the non-realization of which leads to a causative passive. The adoption of a (synthetic) passive bare infinitive, as advocated for in the literature, can thus be dispensed with. Instead, causative passive can be shown to function like a combination of causative and passive, thereby creating a "passivelike" structural context.[1]

1. Introduction

Causative constructions in German come in two types, each of which s formed with the verb *lassen* and a bare infinitive. A construction such as la) I shall call a *causative*. In contrast, a construction such as (1b) exemplifies what will be called a *causative passive*.[2]

1) a. Ich   lasse   Karl   die Blumen   gießen.
       I-NOM have/let Karl-ACC the flowers-ACC water-INF
       'I have/let Karl water the flowers.'[3]

---

b. Ich   lasse die Blumen   (von Karl) gießen.
I-NOM have the flowers-ACC (by   Karl) water-INF
'I have the flowers watered.'

Causatives are AcI constructions. This means that the subject argument of the embedded infinitival verb, the so-called causee[4], is syntactically realized as an accusative NP. In causative passives, in contrast, the causee is either omitted or optionally realized as an agentive PP headed by *von* or *durch*. Causative passives thus show a striking resemblance to canonical passive constructions in that both allow the suppressed logical subject of the embedded verb to optionally appear as an agentive PP (cf. (1b), (2)). Moreover, the formation of a causative passive is restricted to just those verbs that can form a regular passive (cf. Reis 1976, 20). In German, these are, as a rule, verbs whose subject argument qualifies as a proto-agent in the sense of Dowty (1991). For example, the verb *aufheulen* ('to roar') in (3a) is non-agentive. Thus it can neither appear in a passive (cf. (3b)) nor in a causative passive (cf. (3c)).

(2)   Die Blumen   werden (von Karl) gegossen.
the flowers-NOM are   (by   Karl) watered-PART2
'The flowers are being watered (by Karl).'

(3)   a. Ich   lasse den Motor   aufheulen.
I-NOM cause the motor-ACC roar-INF
'I cause the motor to roar.'
        b. *Von dem Motor wurde aufgeheult.
by   the motor was   roared-PART2
'The motor was roaring.'
        c. *Ich lasse (von dem Motor) aufheulen.
I   cause (by the motor) roar-INF
'I cause the motor to roar.'

In what follows I will propose a unified analysis of both types of causative construction. The analysis is couched in the HPSG framework (cf. Pollard and Sag 1987, 1994; Sag 1997) but may be carried over to any other constraint-based approach. I will show that the difference between both types of construction can be treated as an instance of optional subcategorization.[5]

---

[4]   Note that I will call 'causee' any subject argument of the embedded verb irrespective of its thematic role.

[5]   A similar proposal can be found in Höhle (1978, 72), who adopts a lexical entry for causative-passive *lassen* according to which *lassen* does not subcategorize for

The basic idea is that *lassen* optionally subcategorizes for an external argument of the embedded verb, which is omitted in causative passives. The analysis therefore contrasts with alternative approaches that postulate a special kind of passive infinitive for causative passives.[6]

The paper is organized as follows: In section 2 I will discuss and finally dismiss an alternative approach to causative passives in German. Section 3 introduces some basic assumptions regarding the argument structure of finite and non-finite verb forms. Section 4 deals with the argument structure of causative and causative-passive *lassen* and presents a single lexical entry that accounts for both construction types. Some remarks on reflexivization in causative constructions are given in section (5). Finally, in section 6 I will show that this analysis is not only consistent with a unified analysis of passive in German, but also makes transparent the nature of causative passive as a combination of passive and causative.

2.   The passive bare infinitive – proposals and problems

The analysis to be discussed in this section is the most prominent and widely accepted one, which has a long tradition starting with Reis (1973, 1976). It rests on the assumption that causative passives involve a special type of "synthetic" passive infinitive that is formally identical with the normal bare infinitive (cf. (4a)) but exhibits a passive argument structure (cf. (4b)), just like the analytic passive infinitive formed with the passive auxiliary *werden* (cf. (4c)).[7]

(4)   a. Active infinitive *essen* ('eat')

$$
\begin{bmatrix}
\text{CAT} \mid \text{SUBCAT} & \left\langle \text{NP}[nom]_{\boxed{1}},\ \text{NP}[acc]_{\boxed{2}} \right\rangle \\[2ex]
\text{CONTENT} & \begin{bmatrix} essen & \\ \text{AGENT} & \boxed{1} \\ \text{PATIENT} & \boxed{2} \end{bmatrix}
\end{bmatrix}
$$

---

a causee. However, this analysis fails to account for the fact that causative passive is restricted to verbs having an external argument.

[6]   Cf. Reis (1973, 1976, 20f.), Comrie (1976, 272), Fanselow (1987, 131ff.), Grewendorf (1989, 97ff.), Frey (1993, 162), Demske-Neumann (1994, 265), Kunze (1996, 665f., 1997, 161), Zifonun, Hoffmann, and Strecker (1997, 1415ff.).

[7]   Agentive *von/durch*-PPs do not occur on the SUBCAT list, since they are to be treated as adjuncts, cf. Höhle (1978, 161), von Stechow (1990, 174), Lieb (1992, 181), Wunderlich (1993, 740), Primus (1995, 123).

b. Passive infinitive *essen* ('be eaten')

$$\begin{bmatrix} \text{CAT} \mid \text{SUBCAT} & \langle \text{NP}[nom]_{\boxed{1}} \rangle \\[2ex] \text{CONTENT} & \begin{bmatrix} essen \\ \text{AGENT} & \boxed{2} \\ \text{PATIENT} & \boxed{1} \end{bmatrix} \end{bmatrix}$$

c. Analytic passive infinitive *gegessen werden* ('be eaten')

$$\begin{bmatrix} \text{CAT} \mid \text{SUBCAT} & \langle \text{NP}[nom]_{\boxed{1}} \rangle \\[2ex] \text{CONTENT} & \begin{bmatrix} essen \\ \text{AGENT} & \boxed{2} \\ \text{PATIENT} & \boxed{1} \end{bmatrix} \end{bmatrix}$$

However, this proposal is problematic for a number of reasons. First it is theoretically doubtful, since it assumes a passive verb form that lacks the appropriate passive morphology. As we have seen, both infinitives are formally identical. This would be a highly marked phenomenon, as universally there is a strong tendency for passives to be morphologically or periphrastically distinguished from their active counterparts (cf. Keenan 1985; Haspelmath 1990).

Note that two other infinitival verb forms in German, viz. the modal *zu*-infinitive and the participle 2, can appear in active and in passive constructions as well. However, as shown in (5) and (6), each construction makes use of a different auxiliary. As was already demonstrated in Haider (1984, 1986), there is no need to assume more than one lexical entry for modal *zu*-infinitives or participles 2 either. We will return to this issue in section 3.2 and 6.

(5)   a. Sie hat die Tür zu öffnen.
          she has the door to open-ZINF
          'She has to open the door.'

    b. Die Tür ist zu öffnen.
        the door is to open-ZINF
        'The door has to be opened.'

(6)   a. Sie hat die Tür geöffnet.
          she has the door opened-PART2
          'She has opened the door.'

    b. Die Tür wird   geöffnet.
        the door is (being) opened-PART2
        'The door is (being) opened.'

However, there is another type of construction that appears to involve a synthetic passive infinitive. This is the so-called *lassen* middle, where an obligatorily reflexivized form of *lassen* exhibiting a modal ("dispositional") meaning subcategorizes for a bare infinitive, cf. (7).[8]

(7)   Der Wein   lässt sich trinken.
        the wine-NOM let   REFL drink-INF
        'The wine can be drunk.'

Note that the patient argument of the embedded verb appears as the subject of the reflexive *lassen*. In this respect, the construction resembles a canonical passive construction. However, the apparent passive effect is to be attributed to the reflexive *lassen*, which acts as a kind of modal auxiliary (cf. Höhle 1978, 65). Therefore, this type of construction gives no evidence for a passive infinitive either.

A further problem with the assumption in question is that the occurrence of such a passive infinitive would be entirely restricted to constructions involving *lassen*. For example, when governed by a modal verb, a passive infinitive must be realized analytically, as in (8a). A sentence like (8b), in contrast, can only have an active meaning.

(8)   a. Der Rasen muss gemäht   werden.
            the lawn   must mown-PART2 be
            'The lawn must be mown.'
    b. ? Der Rasen muss mähen.
            the lawn   must mow-INF
            'the lawn must mow'

Note also that the adjectival participle 1, which is morphologically derived from the bare infinitive, always possesses an "active" argument structure corresponding[9] to the paradigmatically related finite verb form, cf. (9a). This can be seen from examples (9b) and (9c).

---

[8]   See especially Höhle (1978, 61ff.), Kunze (1996), and Zifonun, Hoffmann, and Strecker (1997, 1854ff.) for a description and analysis of the *lassen* middle construction.

[9]   This means that the subject argument will loose any particular case specification (i.e. the value of its CASE feature becomes *case*), whereas any other argument will keep its constraints. Since participles 2 and modal *zu*-infinitives both have a "passive" argument structure, the derivation of their corresponding adjectival participles affects the argument structure in the same way. Cf. also Jacobs (1992, 118, Fn. 24).

(9)   a. Der Gärtner   mäht den Rasen.
           the gardener-NOM mows the lawn-ACC
           'the gardener is mowing the lawn'
        b. der den Rasen   mähende   Gärtner
           the the lawn-ACC mowing-PART1 gardener
           'the gardener mowing the lawn'
        c. Den Rasen   mähend   sang der Gärtner ein Lied.
           the lawn-ACC mowing-PART1 sang the gardener a   song
           'Mowing the lawn the gardener was singing a song.'

Moreover, almost all proponents of the analysis in question assume object promotion if the embedded verb is transitive.[10] That is, they claim that in structures like (1b) the NP *die Blumen* is the "subject" of the embedded verb. Clearly, the NP cannot be understood as a subject in any morpho-syntactic sense, for it is neither nominative nor does it agree with anything. Being marked as accusative, the simplest assumption is that it just remains an object of the embedded verb.

However, one may ask whether it exhibits any "structural" subject properties that are usually related to phenomena such as control and binding. As for binding, it has been pointed out by Primus (1987, 130) and others[11] that it is not restricted to subjects in German. Hence, no conclusive evidence can be drawn from the binding data.

In German, the controller of the implicit subject of an infinitival adjunct introduced by *ohne* ('without') must be a subject, cf. (10). As was pointed out in Höhle (1978, 71f.) and likewise in Grewendorf (1989, 150), there appears to be a significant asymmetry between causatives and causative passives with respect to the potential of controlling such an infinitival adjunct. While in causatives the causee may act as a controller (cf. (11a)) – thus qualifying as a kind of "subject" – the accusative in a causative passive does not (cf. (11b)).

(10)   Er wurde bezahlt, ohne   gearbeitet zu haben.
        he was   paid   without worked   to have
        'He was paid without having worked.'

---

[10]   Exceptions are Fanselow (1987, 131ff.) and Grewendorf (1989, 97ff.).
[11]   Cf. Grewendorf (1988, 57ff.), Eisenberg (1994, 192), and the references cited in Primus (1987, ibid.).

(11) a. Ich ließ ihn gehen, ohne   sich   verabschiedet zu haben.
          I   let him go   without himself said goodbye to have
          'Ich let him go without him having said goodbye.'
      b. ?? Ich ließ ihn wegbringen, ohne   sich   verabschieden zu
          I   had him taken away without himself say goodbye   to
          dürfen.
          may
          'I had him taken away without him being allowed to say
          goodbye.'

To sum up, there is no evidence for object promotion in causative
passives. However, in German, as well as in many other languages, direct object
promotion is obligatory in passive constructions, witness the ungrammati-
cality of a sentence like (12). For this reason too, the causative passive would be
a fairly marked construction type if it involved a passive infinitive.

(12) * Den Käse   wurde gegessen.
        The cheese-ACC   was   eaten-PART2
        'The cheese was eaten.'

3.   On the argument structure of finite and non-finite verb forms

3.1   External arguments

The analysis of causative constructions rests on two basic assumptions
concerning the argument structure of finite and non-finite verb forms. Both
assumptions can be independently justified with respect to other infinitival
constructions, in particular the personal and impersonal passive in German.
First, I assume that certain arguments are specified as external, bearing
a feature called EA (EXTERNAL-ARGUMENT).[12] An argument is external if it
possesses a sufficient amount of proto-agent properties in the sense of Dowty
(1991). Thus, being an external argument is supposed to be a lexical-categorial
feature of verbs which is directly related to lexical-semantic properties.[13]

---

[12]   Cf. Heinz and Matiasek (1994), who build largely on Haider (1985, 1986) using
       Haider's term *designated argument* instead.
[13]   In this respect, the concept of an external argument employed here resembles that
       one envisaged in Jacobs (1994, 119, Fn. 31). – For an alternative view, see
       Grimshaw (1990).

Example (13) shows feature structure descriptions of finite verb forms (VFORM *fin*) with the list-valued features EA and SUBCAT(EGORIZATION). In (13a) the subject argument of *prüfen* ('examine') is the external argument being an element of the list-valued feature EA. In contrast, in (13b) the value of EA is the empty list because *verwelken* ('shrivel') is unaccusative and therefore lacks an external argument.

(13)   a. *prüfen* ('examine')

$$\begin{bmatrix} \text{HEAD} \mid \text{VFORM} & \textit{fin} \\ \text{EA} & \langle \boxed{1} \rangle \\ \text{SUBCAT} & \langle \boxed{1}\text{NP}[\textit{nom}], \text{NP}[\textit{acc}] \rangle \end{bmatrix}$$

b. *verwelken* ('shrivel')

$$\begin{bmatrix} \text{HEAD} \mid \text{VFORM} & \textit{fin} \\ \text{EA} & \langle \rangle \\ \text{SUBCAT} & \langle \text{NP}[\textit{nom}] \rangle \end{bmatrix}$$

3.2   Case alternation and underspecification

3.2.1   Structural vs. alternating case

In Generative Grammar, the concept of structural case is widely employed to account for case alternations in passives, causatives, and other infinitival constructions. For example, in (5) and (6) the patient argument of the modal *zu*-infinitive and the participle 2 is accusative, if the verb is governed by (a finite form of) *haben*, and nominative otherwise.

Although the key motivation for employing the notion of structural case is to account for case alternations, it is also clear that historically and conceptually the notion of structural case goes beyond these phenomena. Taken in its literal (and original) sense, structural case means that case is determined by phrase structure configurations. For example, it was claimed that an NP is nominative if governed by INFL/AGR-S and accusative if governed by V (cf. Chomsky 1981, 170; Haider 1986, 9).

Now it should be clear that structural and alternating case do not always coincide, which shows that they are basically distinct phenomena. This holds for all instances of structural case where the verbal head is finite, since case alternation is entirely restricted to infinite verb forms.[14]

---

[14]   Note that the so-called *inchoative-causative alternation* such as *er zerbrach die Vase* vs. *die Vase zerbrach* is not an instance of *syntactic* case alternation, since both verbs differ in meaning and semantic structure. They are thus different lexical words

However, the more relevant question is whether there remains any good reason for applying case in the syntax at all rather than in the lexicon. For if case assignment depends on syntactic phrase structure positions, there is no other possibility than to let it take place in the syntax. But if case assignment only depends on the order of argument positions of SUBCAT-lists, as it is usually assumed in HPSG,[15] there appears little reason for *not* handling it in the lexicon. The exception and only true instances of syntactic case assignment are then case alternating phenomena as they occur most prominently in passive and causative constructions (cf. Primus 1999, 154).

The conclusion to be drawn is to restrict case underspecification to just those verb forms that are susceptible for case alternating processes, i.e. non-finite verb forms.[16] Accordingly, I will eschew the notion of structural case and speak of (syntactically) *alternating* case instead. A case that is not alternating is called (syntactically) *invariant* or *lexical*.

3.2.2   *Underspecification of non-finite verb forms*

Bare infinitives

Since bare infinitives (VFORM *inf*) may be governed by causative or perceptive verbs, their subject position is to be underspecified bearing the CASE value *alt(ernating-case)*. Note that not all verbs are equally acceptable in this alt of construction. For instance, as shown in (14), unaccusative verbs are strongly disprefered if they select an optional dative (cf. Zifonun, Hoffmann, and Strecker 1997, 1422). However, it remains unclear whether the restriction at work is syntactic or semantic in nature (or both). I leave this question open and do not rule out these examples for syntactic reasons. Therefore, with all types of non-finite forms the subject position will be underspecified, cf. (15).

(14)   Ich sah (??ihr) das Experiment misslingen.
       I   saw (her)   the experiment fail
       'I saw that she failed the experiment.'

---

rather than different forms of the same word. For an alternative approach – which I do not find convincing – see Wunderlich (1993).

[15]   Cf. Heinz and Matiasek (1994, 209f.) and Müller (1999, 280f.).

[16]   A similar proposal has been made by Pollard (1994, 276ff.), who assumes that structural case applies only to subject and direct object arguments of non-finite verb forms.

(15)   *streichen* ('paint')

$$
\begin{bmatrix}
\text{HEAD} \mid \text{VFORM} & \textit{inf} \\
\text{EA} & \langle\boxed{1}\rangle \\
\text{SUBCAT} & \langle\boxed{1}\text{NP}[\textit{alt}],\ \text{NP}[\textit{alt}]\rangle
\end{bmatrix}
$$

Participles 2

As for participles 2 (VFORM *part2*), I assume – following an analysis originally proposed by Haider (1984)[17]– that the external argument (if there is one) is lexically blocked and can be deblocked only by the perfect auxiliary *haben*. In this sense, participles 2 have a "passive" argument structure. This accounts for the fact that in so-called participial constructions the participle 2 occurs without any auxiliary but clearly exhibits a passive argument structure, cf. (16a). The same holds for the attributive use of the participle, cf. (16b). As expected, participles 2 of unaccusative verbs behave in the same way, cf. (17a) and (17b).

(16)   a. Das Blumenbeet, vom   Wind völlig   verwüstet,
           the flowerbed   by-the wind completely destroyed-PART2
           machte einen traurigen Eindruck.
           made   a   sad   impression
           'Being completely destroyed by the wind the flowerbed gave a sad impression.'
        b. das vom   Wind völlig   verwüstete   Blumenbeet
           the by-the wind completely destroyed-PART2 flowerbed
           'the flowerbed that is completely destroyed by the wind'

(17)   a. Aufgeblüht   sahen die   Blumen großartig aus.
           blossomed-PART2 the   flowers looked great
           'Having blossomed the flowers looked great.'
        b. die aufgeblühten   Blumen
           the blossomed-PART2 flowers
           'the blossomed flowers'

There is another type of construction where only participles 2 of transitive and unaccusative verbs are possible. These are structures such as

---

17   See also Heinz and Matiasek (1994, 217ff.) and Zifonun, Hoffmann, and Strecker (1997, 1790 et passim.).

(18a)–18c), which are similar to AcI constructions except for the embedded verb, vhich is realized as a participle 2.

(18) a. Ich sah das Fenster   geöffnet.
          I   saw the window-ACC opened-PART2.
          'I saw the window being opened.'
      b. Ich sah die Blume   verwelkt.
          I   saw the flower-ACC shriveled-PART2.
          'I saw the flower shriveled.'
      c. * Ich sah Aladin   gearbeitet.
          I   saw Aladin-ACC worked-PART2.
          'I saw Aladin having worked.'

To account for case alternations in these as well as in canonical *werden*-passive constructions, the subject argument[18] of unaccusative and transitive participles 2 is lexically specified as bearing the CASE value *alt*. Thus, for participles 2 we arrive at lexical entries such as (19a)–(19c).

(19) a. *geöffnet* ('opened')

$$
\begin{bmatrix}
\text{CAT} & \begin{bmatrix} \text{HEAD} \mid \text{VFORM} & part2 \\ \text{EA} & \left\langle \text{NP}[nom]_{\boxed{1}} \right\rangle \\ \text{SUBCAT} & \left\langle \text{NP}[alt]_{\boxed{2}} \right\rangle \end{bmatrix} \\
\text{CONTENT} & \begin{bmatrix} \textit{öffnen} \\ \text{AGENT} & \boxed{1} \\ \text{PATIENT} & \boxed{2} \end{bmatrix}
\end{bmatrix}
$$

      b. *verwelkt* ('shriveled')

$$
\begin{bmatrix}
\text{CAT} & \begin{bmatrix} \text{HEAD} \mid \text{VFORM} & part2 \\ \text{EA} & \left\langle \right\rangle \\ \text{SUBCAT} & \left\langle \text{NP}[alt]_{\boxed{1}} \right\rangle \end{bmatrix} \\
\text{CONTENT} & \begin{bmatrix} \textit{verwelken} \\ \text{PATIENT} & \boxed{1} \end{bmatrix}
\end{bmatrix}
$$

      c. *gearbeitet* ('worked')

$$
\begin{bmatrix}
\text{CAT} & \begin{bmatrix} \text{HEAD} \mid \text{VFORM} & part2 \\ \text{EA} & \left\langle \text{NP}[nom]_{\boxed{1}} \right\rangle \\ \text{SUBCAT} & \left\langle \right\rangle \end{bmatrix} \\
\text{CONTENT} & \begin{bmatrix} \textit{arbeiten} \\ \text{AGENT} & \boxed{1} \end{bmatrix}
\end{bmatrix}
$$

---

[18] The subject argument is defined as the first argument on a verb's SUBCAT list.

Zu-infinitives

With *zu*-infinitives it is necessary to distinguish two forms differing in meaning and argument structure: first, the "normal" *zu*-infinitive (VFORM *zu-inf*) usually occurring in infinitival complements and adjuncts and having the same meaning and argument structure as the bare infinitive. Second, there is a modal *zu*-infinitive (VFORM *mod-zu-inf*) which has the same argument structure as the participle 2 and conveys a modal meaning (possibility or deontic necessity). It is often assumed[19] that the modal meaning is to be attributed to the auxiliaries *haben* and *sein* that govern the modal *zu*-infinitive in constructions like (5a) and (5b). This proposal is problematic insofar as the *zu*-participle 1, which is morphologically derived from the *zu*-infinitive, bears a modal meaning as well.[20] It is thus reasonable to attribute the modal meaning to the *zu*-infinitive rather than to the auxiliary. We then arrive at the two lexical entries given in (21) for the non-modal and modal *zu*-infinitive, respectively.[21]

(20)   die zu öffnende   Tür
        the to open-ZPART1 door
        'the door to be opened'

(21)   a. *zu öffnen* ('to open')

$$
\left[
\begin{array}{ll}
\text{CAT} & \left[
\begin{array}{ll}
\text{HEAD | VFORM} & \textit{zu-inf} \\
\text{EA} & \langle \boxed{3} \rangle \\
\text{SUBCAT} & \left\langle \text{NP}\boxed{3}[\textit{nom}]_{\boxed{1}}, \text{NP}[\textit{alt}]_{\boxed{2}} \right\rangle
\end{array}
\right] \\[2em]
\text{CONTENT} & \left[
\begin{array}{ll}
\textit{open} & \\
\text{AGENT} & \boxed{1} \\
\text{PATIENT} & \boxed{2}
\end{array}
\right]
\end{array}
\right]
$$

---

[19]   Cf. Haider (1986, 14), Engel (1988, 479f.), von Stechow (1990, 146, 182f.), Zifonun, Hoffmann, and Strecker (1997, 1278ff., 1897ff.), Müller (1999, 304ff.). See also Abraham (1995, 287f.) and Hentschel and Weydt (1994, 77) for *haben*, and Höhle (1978, 46ff.) and Rapp (1997, 182, Fn. 168) for *sein*.

[20]   Cf. also Maier (1987, 14). – The *zu*-participle 1 will be derived from the modal *zu*-infinitive by the same derivation process that relates the participle 1 to the bare infinitive (cf. *öffnend* ('opening') vs. *öffnen* ('open')).

[21]   I neglect the modal meaning component in the lexical entry of the modal *zu*-infinitive, since I want to eschew any discussion as to its proper representation.

b. *zu öffnen* ('to open')

$$
\begin{bmatrix}
\text{CAT} & \begin{bmatrix} \text{HEAD} \mid \text{VFORM} & \textit{mod-zu-inf} \\ \text{EA} & \left\langle \text{NP}[\textit{nom}]_{\boxed{1}} \right\rangle \\ \text{SUBCAT} & \left\langle \text{NP}[\textit{alt}]_{\boxed{2}} \right\rangle \end{bmatrix} \\[3em]
\text{CONTENT} & \begin{bmatrix} \textit{open} \\ \text{AGENT} & \boxed{1} \\ \text{PATIENT} & \boxed{2} \end{bmatrix}
\end{bmatrix}
$$

4.   On the argument structure of *lassen*

4.1   *Monoclausal vs. biclausal structures*

Causative and causative-passive *lassen* belong to the class of so-called *coherently constructing verbs* (in the sense of Bech 1983), which means – among other things – that they form monoclausal structures. In particular, coherently constructing verbs do not subcategorize for a VP, but rather for a simple verb form and its complements (cf. section 4.2). In contrast, incoherently constructing verbs embed a VP. Evidence for such a VP is given by data from extraposition (22a), pied piping (22b), and movement within the middle field (22c).

(22)   a. weil   ich ihn bat, [*vp* das Buch zu lesen]
           because I   him asked   the book to read
           'because I asked him to read the book'
       b. das Buch, [*vp* das zu lesen] ich ihn bat
           the book   that to read I   him asked
           'the book that I asked him to read'
       c. weil   ich ihn [*vp* das Buch zu lesen] oft   gebeten habe
           because I   him   the book to read   often asked   have
           'because I have often asked him to read the book'

Significantly, these types of construction are not possible with coherently constructing verbs like *lassen*:

(23)   a.   *weil   ich ihn lasse das Buch lesen
               because I   him have the book read
               'because I have him read the book'
       b.   *das Buch, das lesen ich ihn lasse
               the book that read I   him have
               'the book I have him read'

```
                              VP
                    _____/|_____
                   /    /       |      \      \
                NP NP    NP       V      V
                 |   |    |        |      |
                ich ihn das Buch lesen lasse
```
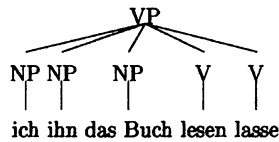
Fig. 1   Flat phrase structure.

c.   *weil   ich ihn das Buch lesen nicht lassen will
     because I   him the book read not   let   want
     'because I do not want to let him read the book'

On the other hand, evidence for a biclausal structure has often been
sought in data from reflexivization. Thus it has been claimed that causatives
are biclausal while causative passives are monoclausal. In section 5 I will
return to this issue arguing that phrase structure is not the relevant parameter
in an explanation of the relevant distinctions.

   The question now arises as to what kind of phrase structure we shall
adopt for coherent constructions. There are indeed several possibilities, which
are all consistent with my analysis of causative constructions. So nothing
hinges on the particular phrase structure analysis as long as coherently
constructing verbs are assumed not to embed a VP.[22] Following Eisenberg
(1994, 102ff., 384), Nerbonne (1994), and Bouma and van Noord (1998)
I assume a thoroughly flat structure for coherent constructions, that is,
a structure where the matrix verb and its (verbal and non-verbal) complements
are coconstituents (cf. figure 1).

   A consequence of this approach is that we have to adopt different
phrase structure principles for finite and non-finite head complement phrases
respectively, which is justified by the fact that subject arguments are
saturated only in finite phrases. In this sense, all non-finite phrases are
"unsaturated".[23]

---

[22]   In particular, the analysis is fully compatible with the assumption of a so-called
       verbal complex along the lines of Hinrichs and Nakazawa (1994).
[23]   Verb first structures can be licensed by using an appropriate linearization rule, cf.,
       for instance Pollard (1996). Verb second structures are then accounted for in terms
       of a standard UDC ("unbounded dependency construction") mechanism. An
       account of partial VP fronting is given in Meurers (1999). Note that on the current
       approach a separate phrase structure principle will be needed in order to capture
       partial VPs.

(24)   Phrase structure principle for finite head-complement phrases
       (*fin-hd-comp-ph*)[24]

$$[\textit{fin-hd-comp-ph}] \rightarrow \begin{bmatrix} \text{SYNSEM} \mid \text{LOC} \mid \text{CAT} \mid \text{SUBCAT } \langle \rangle \\ \text{HD-DTR} \begin{bmatrix} \textit{word} \\ \text{SYNSEM} \mid \text{LOC} \mid \text{CAT} \mid \text{SUBCAT } \langle \boxed{1} \rangle \oplus \boxed{2} \end{bmatrix} \end{bmatrix}$$

(25)   Phrase structure principle for non-finite head-complement phrases
       (*non-fin-hd-comp-ph*)

$$[\textit{non-fin-hd-comp-ph}] \rightarrow \begin{bmatrix} \text{SYNSEM} \mid \text{LOC} \mid \text{CAT} \mid \text{SUBCAT } \langle \boxed{1} \rangle \\ \text{HD-DTR} \begin{bmatrix} \textit{word} \\ \text{SYNSEM} \mid \text{LOC} \mid \text{CAT} \mid \text{SUBCAT } \langle \boxed{1} \rangle \oplus \boxed{2} \end{bmatrix} \end{bmatrix}$$

4.2   Lexical entries for lassen

Let us turn now to the lexical entry for *lassen*. The basic idea is that
lassen does not only subcategorize for the embedded verb but also for the
complements of the embedded verb. The relevant mechanism, which has
in its current form been proposed by Hinrichs and Nakazawa (1994: 21),
is variously dubbed *argument attraction*, *argument inheritance* or *argument
raising* in the HPSG literature (cf. Pollard 1994, Kiss 1994, Meurers 1999,
among others). Argument attraction can be considered the defining char-
acteristic of the group of coherently constructing verbs in German (cf. Kiss
1994, 76).

(26)   *lassen*₁ (causative)

$$\begin{bmatrix} \text{PHON } \langle \textit{lassen} \rangle \\ \text{S} \mid \text{L} \mid \text{C} \begin{bmatrix} \text{HEAD} \mid \text{VFORM } \textit{inf} \\ \text{EA} \qquad \boxed{1} \langle \text{NP}[\textit{alt}] \rangle \\ \text{SUBCAT } \boxed{1} \oplus \boxed{2} \oplus \boxed{3} \oplus \left\langle \begin{bmatrix} \text{LEX} & + \\ \text{L} \mid \text{C} & \begin{bmatrix} \text{HEAD} \mid \text{VFORM } \textit{inf} \\ \text{EA} & \boxed{2} \\ \text{SUBCAT } \boxed{2} \oplus \boxed{3} \end{bmatrix} \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix}$$
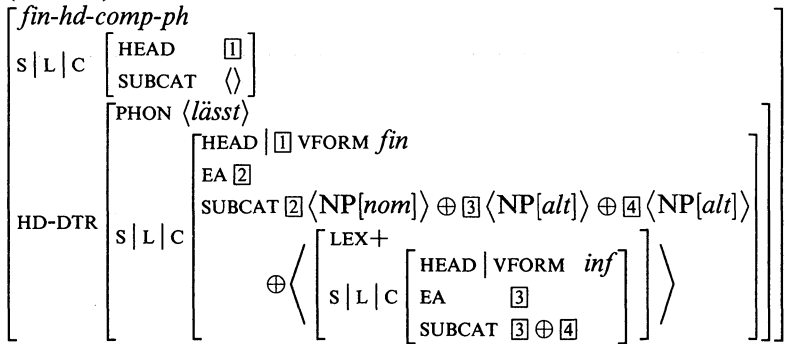
The (partial) lexical entry in (26) says that *lassen* subcategorizes
for a bare infinitive (VFORM *inf*) which has to be non-phrasal, i.e., a lexical
form (LEX +). Hence *lassen* does not embed a VP. Moreover, *lassen*
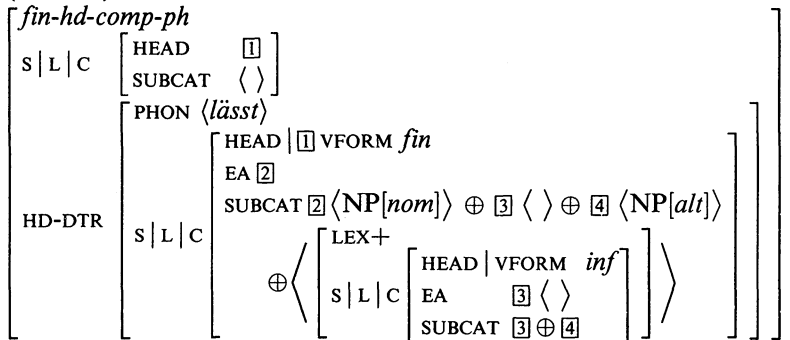
---

[24]   I follow Sag (1997) in assuming a hierarchical ordering of phrasal types. In
       particular, *fin-hd-comp-ph* and *non-fin-hd-comp-ph* are subtypes of *hd-comp-ph*
       (*head-complement-phrase*).

subcategorizes for a subject-NP ($\boxed{1}$) as well as for all complements of the embedded verb ($\boxed{2}$, $\boxed{3}$). If the verbal complement of *lassen* is transitive or unaccusative, feature structure descriptions such as (27) and (28) arise. Notice that with unaccusative verbs the EA value being attracted will always be the empty list, as indicated by the expression '$\boxed{3}\langle\rangle$' in (28).[25]

(27) (weil)   er   mich   den Rasen   mähen   lässt
      (because) he-NOM me-ACC the lawn-ACC mow-INF have
      '(because) he has me mow the lawn'

$$
\begin{bmatrix}
\textit{fin-hd-comp-ph} \\
\text{S}\,|\,\text{L}\,|\,\text{C}
\begin{bmatrix}
\text{HEAD} & \boxed{1} \\
\text{SUBCAT} & \langle\rangle
\end{bmatrix} \\[1em]
\text{HD-DTR}
\begin{bmatrix}
\text{PHON } \langle \textit{lässt}\rangle \\
\text{S}\,|\,\text{L}\,|\,\text{C}
\begin{bmatrix}
\text{HEAD}\,|\,\boxed{1}\text{ VFORM } \textit{fin} \\
\text{EA } \boxed{2} \\
\text{SUBCAT } \boxed{2}\langle\text{NP}[nom]\rangle \oplus \boxed{3}\langle\text{NP}[alt]\rangle \oplus \boxed{4}\langle\text{NP}[alt]\rangle \\
\oplus \left\langle
\begin{bmatrix}
\text{LEX}+ \\
\text{S}\,|\,\text{L}\,|\,\text{C}
\begin{bmatrix}
\text{HEAD}\,|\,\text{VFORM } \textit{inf} \\
\text{EA} & \boxed{3} \\
\text{SUBCAT} & \boxed{3}\oplus\boxed{4}
\end{bmatrix}
\end{bmatrix}
\right\rangle
\end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

(28) (weil)   ich   die Blumen   verwelken   lasse
      (because) I-NOM   the flowers-ACC shrivel-INF let
      '(because) I let the flowers shrivel'

$$
\begin{bmatrix}
\textit{fin-hd-comp-ph} \\
\text{S}\,|\,\text{L}\,|\,\text{C}
\begin{bmatrix}
\text{HEAD} & \boxed{1} \\
\text{SUBCAT} & \langle\,\rangle
\end{bmatrix} \\[1em]
\text{HD-DTR}
\begin{bmatrix}
\text{PHON } \langle \textit{lässt}\rangle \\
\text{S}\,|\,\text{L}\,|\,\text{C}
\begin{bmatrix}
\text{HEAD}\,|\,\boxed{1}\text{ VFORM } \textit{fin} \\
\text{EA } \boxed{2} \\
\text{SUBCAT } \boxed{2}\langle\text{NP}[nom]\rangle \oplus \boxed{3}\langle\,\rangle \oplus \boxed{4}\langle\text{NP}[alt]\rangle \\
\oplus \left\langle
\begin{bmatrix}
\text{LEX}+ \\
\text{S}\,|\,\text{L}\,|\,\text{C}
\begin{bmatrix}
\text{HEAD}\,|\,\text{VFORM } \textit{inf} \\
\text{EA} & \boxed{3}\langle\,\rangle \\
\text{SUBCAT} & \boxed{3}\oplus\boxed{4}
\end{bmatrix}
\end{bmatrix}
\right\rangle
\end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

---

[25] Concatenating an empty list *l* with another list *l'* yields *l'* itself and is therefore pointless. However, the point of the feature structure description given in (28) is to show that it involves the same lexical entry, i.e. *lassen*₁, as the one in (27).

4.3 The Case Principle

As we have seen, arguments bearing the CASE value *alt(ernating-case)* can be discharged by nominative as well as accusative NPs. Thus we have to make sure that an underspecified argument cannot be filled with a complement having "the wrong" CASE value, cf. (29).

(29)   * weil   er   ich   den Rasen   mähen lässt
         because he-NOM I-NOM the lawn-ACC mow   has
         'because he has me mow the lawn'

To this end I adopt a version of the so-called *Case Principle*, which was originally formulated in Heinz and Matiasek (1994, 209f.). The Case Principle serves as a constraint on head-complement phrases in spelling out underspecified CASE values. Intuitively, it says that the first underspecified argument must be a nominative NP (cf. (30a)), whereas any subsequent underspecified arguments must be accusative NPs (cf. (30b)).[26]

(30)   Case Principle

   a. $\begin{bmatrix} \textit{fin-hd-comp-ph} \\ \text{HD-DTR} \mid \text{S} \mid \text{L} \mid \text{C} \mid \text{SUBCAT} \left\langle \text{NP}[\textit{alt}] \right\rangle \oplus \boxed{1} \end{bmatrix} \rightarrow$
      $\begin{bmatrix} \text{HD-DTR} \mid \text{S} \mid \text{L} \mid \text{C} \mid \text{SUBCAT} \left\langle \text{NP}[\textit{nom}] \right\rangle \oplus \boxed{1} \end{bmatrix}$

   b. $\begin{bmatrix} \textit{hd-comp-ph} \\ \text{HD-DTR} \mid \text{S} \mid \text{L} \mid \text{C} \mid \text{SUBCAT} \left\langle \textit{synsem} \right\rangle \oplus \boxed{1} \oplus \left\langle \text{NP}[\textit{alt}] \right\rangle \oplus \boxed{2} \end{bmatrix} \rightarrow$
      $\begin{bmatrix} \text{HD-DTR} \mid \text{S} \mid \text{L} \mid \text{C} \mid \text{SUBCAT} \left\langle \textit{synsem} \right\rangle \oplus \boxed{1} \oplus \left\langle \text{NP}[\textit{acc}] \right\rangle \oplus \boxed{2} \end{bmatrix}$

The first implication, (30a), comes into play in raising-to-subject constructions such as (31), where the embedded verb is a bare infinitive. (30a) then specifies that in structures like (31) the subject must be a nominative NP:

(31)   (weil)   er arbeiten muss
       (because) he work   must
       '(because) he has to work'

---

[26]   See also Müller (1999, 280f.). Note that for the sake of simplicity I neglect the formally necessary distinction between the CASE values *syntactic-nominative/ -accusative* and *lexical-nominative/-accusative*. See Heinz and Matiasek (1994, 207) for a discussion on the relevant distinctions.

$$
\begin{bmatrix}
\textit{fin-hd-comp-ph} \\
\text{PHON } \langle er,\ arbeiten,\ muss \rangle \\
\text{S | L | C}
\begin{bmatrix}
\text{HEAD} & \boxed{1} \\
\text{SUBCAT} & \langle\,\rangle
\end{bmatrix} \\
\text{HD-DTR}
\begin{bmatrix}
\text{PHON } \langle muss \rangle \\
\text{S | L | C}
\begin{bmatrix}
\text{HEAD | } \boxed{1}\ \text{VFORM } \textit{fin} \\
\text{SUBCAT } \langle \text{NP}[alt],\ \text{V}[inf,\ \text{LEX+}] \rangle
\end{bmatrix}
\end{bmatrix} \\
\text{NON-HD-DTRS }
\left\langle
\begin{bmatrix}
\text{PHON} \langle er \rangle \\
\ldots | \text{CASE } nom
\end{bmatrix},
\begin{bmatrix}
\text{PHON } \langle arbeiten \rangle \\
\ldots | \text{VFORM } inf
\end{bmatrix}
\right\rangle
\end{bmatrix}
$$

The second implication, given in (30b), applies – *inter alia* – to finite structures such as (32), specifying the CASE value of any non-first under-specified arguments as *accusative*. These are just the arguments to be filled by the lower subject (*mich*) and object (*den Rasen*). Note that because of (30b) structures such as (29) are correctly ruled out as ungrammatical.

(32)   (weil)   er mich den Rasen mähen lässt
      (because) he me   the lawn mow   has
      '(because) he has me mow the lawn'

$$
\begin{bmatrix}
\textit{fin-hd-comp-ph} \\
\text{PHON } \langle er,\ mich,\ den,\ Rasen,\ mähen,\ lässt \rangle \\
\text{S | L | C}
\begin{bmatrix}
\text{HEAD} & \boxed{1} \\
\text{SUBCAT} & \langle\,\rangle
\end{bmatrix} \\
\text{HD-DTR}
\begin{bmatrix}
\text{PHON } \langle lässt \rangle \\
\text{S | L | C}
\begin{bmatrix}
\text{HEAD | } \boxed{1}\ \text{VFORM } \textit{fin} \\
\text{SUBCAT } \left\langle \begin{array}{l} \text{NP}[nom],\ \text{NP}[alt] \\ \text{NP}[alt],\ \text{V}[inf,\ \text{LEX+}] \end{array} \right\rangle
\end{bmatrix}
\end{bmatrix} \\
\text{NON-HD-DTRS }
\left\langle
\begin{array}{ll}
\begin{bmatrix} \text{PHON } \langle er \rangle \\ \ldots | \text{CASE } nom \end{bmatrix},
& \begin{bmatrix} \text{PHON } \langle mich \rangle \\ \ldots | \text{CASE } acc \end{bmatrix}, \\
\begin{bmatrix} \text{PHON } \langle den\ Rasen \rangle \\ \ldots | \text{CASE } acc \end{bmatrix},
& \begin{bmatrix} \text{PHON } \langle mähen \rangle \\ \ldots | \text{VFORM } inf \end{bmatrix}
\end{array}
\right\rangle
\end{bmatrix}
$$

Likewise, for non-finite structures such as (33), (30b) requires the CASE value of any underspecified arguments but the first to be *acc(usative)*.

(33)   (um)   mich den Rasen mähen zu lassen
      (in order) me   the lawn mow   to have
      '(in order) to have me mow the lawn'

$$
\begin{bmatrix}
\textit{non-fin-hd-comp-ph} \\
\text{PHON} \; \langle \textit{mich, den, Rasen, mähen, zu lässen} \rangle \\
\text{S} | \text{L} | \text{C} \quad \begin{bmatrix} \text{HEAD} & \boxed{2} \\ \text{SUBCAT} & \langle \text{NP}[\textit{nom}] \rangle \end{bmatrix} \\[4ex]
\text{HD-DTR} \quad \begin{bmatrix}
\text{PHON} \; \langle \textit{zu lassen} \rangle \\
\text{S} | \text{L} | \text{C} \begin{bmatrix}
\text{HEAD} | \boxed{2} \; \text{VFORM} \; \textit{zu-inf} \\
\text{EA} \quad \langle \boxed{1} \rangle \\
\text{SUBCAT} \left\langle \begin{array}{l} \boxed{1}\text{NP}[\textit{nom}], \text{NP}[\textit{alt}], \\ \text{NP}[\textit{alt}], \text{V}[\textit{inf}, \text{LEX} +] \end{array} \right\rangle
\end{bmatrix}
\end{bmatrix} \\[8ex]
\text{NON-HD-DTRS} \left\langle \begin{bmatrix} \text{PHON} \; \langle \textit{mich} \rangle \\ \dots | \text{CASE} \; \textit{acc} \end{bmatrix}, \begin{bmatrix} \text{PHON} \; \langle \textit{den Rasen} \rangle \\ \dots | \text{CASE} \; \textit{acc} \end{bmatrix}, \begin{bmatrix} \text{PHON} \langle \textit{mähen} \rangle \\ \dots | \text{VFORM} \; \textit{inf} \end{bmatrix} \right\rangle
\end{bmatrix}
$$

4.4 A unified account of causatives and causative passives

The question to be addressed now concerns the argument structure of causative passives. I will assume the following lexical entry for *lassen* in causative passives, which differs from the above-mentioned one in two ways: First, the embedded verb is required to have an external argument. This ensures that causative passives can only be formed from verbs allowing a canonical *werden* passive. Second, the external argument is not being attracted. This, in turn, accounts for the expected passive effect in causative passives.

(34) *lassen₂* (causative passive)

$$
\begin{bmatrix}
\text{PHON} \; \langle \textit{lassen} \rangle \\
\text{S} | \text{L} | \text{C} \begin{bmatrix}
\text{HEAD} | \text{VFORM} \; \textit{inf} \\
\text{EA} \quad \boxed{1} \; \langle \text{NP}[\textit{alt}] \rangle \\
\text{SUBCAT} \; \boxed{1} \oplus \boxed{3} \oplus \left\langle \begin{bmatrix} \text{LEX} + \\ \text{L} | \text{C} \begin{bmatrix} \text{HEAD} | \text{VFORM} \; \textit{inf} \\ \text{EA} \quad \langle \boxed{2} \rangle \\ \text{SUBCAT} \; \langle \boxed{2} \rangle \oplus \boxed{3} \end{bmatrix} \end{bmatrix} \right\rangle
\end{bmatrix}
\end{bmatrix}
$$

If we combine *lassen₂* with a bare infinitive, we get structures such as (35).

(35) (weil)   ich   den Rasen   mähen   lasse
(because) I-NOM the lawn-ACC mow-INF have
'(because) I have the lawn mown'

$$\begin{bmatrix} \text{HEAD} \mid \text{VFORM } \textit{fin} \\ \text{EA} \quad\quad \langle \boxed{1} \rangle \\ \text{SUBCAT } \langle \boxed{1}\text{NP}[\textit{nom}] \rangle \oplus \boxed{3}\langle \text{NP}[\textit{acc}] \rangle \oplus \langle \text{V}[\textit{inf}] \rangle \end{bmatrix}$$

The lexical entries for $lassen_1$ and $lassen_2$ can now be collapsed into one by treating the external argument of the embedded verb as an optional argument of $lassen_1$. Thus we arrive at the following unified lexical entry for *lassen* in causative constructions.[27]

(36)   *lassen* (causative and causative passive)

$$\begin{bmatrix} \text{PHON} \quad \langle \textit{lassen} \rangle \\ \text{S} \mid \text{L} \mid \text{C} \begin{bmatrix} \text{HEAD} \mid \text{VFORM } \textit{inf} \\ \text{EA} \quad\quad \boxed{1} \, \langle \text{NP}[\textit{alt}] \rangle \\ \\ \text{SUBCAT } \boxed{1} \oplus (\boxed{2}) \oplus \boxed{3} \oplus \left\langle \begin{bmatrix} \text{LEX} + \\ \text{L} \mid \text{C} \begin{bmatrix} \text{HEAD} \mid \text{VFORM } \textit{inf} \\ \text{EA} \quad\quad \boxed{2} \\ \text{SUBCAT } \boxed{2} \oplus \boxed{3} \end{bmatrix} \end{bmatrix} \right\rangle \Big/ \end{bmatrix} \end{bmatrix}$$

Note that with unaccusative verbs causatives and causative passives coincide. Both construction types differ only with respect to the attraction of the external argument of the embedded verb, which will be attracted in causatives but not in causative passives. However, as unaccusative verbs lack an external argument, the relevant difference disappears.

5.   Some remarks on reflexivization

As mentioned earlier, causatives and causative passives differ in their binding possibilities. In causatives like (37a) an anaphor cannot be coreferential with the causer-NP but only with the causee-NP. In contrast, the opposite is true if the lower object is a pronoun, as shown in (37b).

---

27   Heinz and Matiasek (1994, 231f.) offer an analysis of AcI constructions in terms of object control structures. Suchsland (1987), in contrast, treats only causative-passive *lassen* as a control verb, but causative *lassen* as an ECM ("exceptional case marking") verb. However, it has already been shown in Reis (1973, 520) that an analysis of causative constructions in terms of control structures is inadequate. See also Fanselow (1987, 134ff.) for arguments against a control analysis of causative passives.

(37)   a. Karl$_i$ ließ Franz$_j$ sich$_{*i/j}$ rasieren.
         Karl had Franz him   shave
         'Karl had Franz shave him.'
       b. Karl$_i$ ließ Franz$_j$ ihn$_{i/*j}$ rasieren.
         Karl had Franz him   shave
         'Karl had Franz shave him.'

However, this does not hold for causative passives, where an anaphor, but not a pronoun in the position of the lower object, can be bound by the causer, cf. (38).

(38)   Karl$_i$ ließ sich$_i$/*ihn$_i$ rasieren.
         Karl had himself/him shave
         'Karl had himself shaved.'

Such data from reflexivization have often been cited as evidence that causatives and causative passives differ in terms of phrase structure. The underlying assumption – derived from the binding theory of Chomsky (1981) – is that binding is restricted to certain local phrase structure domains also known as "governing categories". Thus, Grewendorf (1983, 140ff.) assumes that causative *lassen* subcategorizes for an S'/S, which establishes a governing category of is own, thereby blocking reflexivization. In contrast, causative-passive *lassen* is assumed to select only for a VP, which allows binding from outside. More recently, Wunderlich (1997, 64) speaks of 'different degrees of clausematehood', implicating that causative passives form monoclausal structures while causatives form biclausal structures, a claim, that is also maintained by Webelhuth (1998) as well as Ackerman and Webelhuth (1998, 268ff.).

I do not want to go into any of these proposals in detail. One apparent disadvantage all (or at least most)[28] of them share is that they have to adopt different lexical entries for *lassen* (differing with respect to their sub-categorization properties) which cannot be reduced to one. In contrast, given the analysis of causative constructions proposed in this paper, a more simple solution suggests itself which need not take recourse to phrase structural

---

[28]   Wunderlich (1997, 64) offers a single lexical entry claiming that 'the different degrees of clausematehood result from the fact that the dependent verb can project onto different syntactic levels.' However, this claim is hard to evaluate, since Wunderlich does not say how the projection might be (lexically or syntactically) constrained in each particular case.

differences. Informally, the relevant generalization can be formulated as in (39):[29]

(39) For all coreferential arguments X, Y of the same SUBCAT list, X preceding Y: Y will be pronominalized[30] if and only if there is an external argument Z intervening between X and Y. Otherwise, X will be reflexivized.

This accounts for the data given in (37) and (38) as well as such in (40), where the embedded verb is unaccusative and which show the binding properties of causative passives.

(40)   a. Karl$_i$ lässt sich$_i$ im   Wasser treiben.
          Karl let   himself in-the water   drift
          'Karl let himself drift in the water.'
        b. Karl$_i$ lässt die Probleme auf sich$_i$ zukommen.
          Karl let   the problems to himself come
          'Karl let the problems take its course.'

Note that the generalization given above does not exclude an external argument itself from being bound by some matrix subject. Thus, in causative constructions such as (41) the embedded external argument has to be reflexivized:

(41)   In seiner Autobiographie ließ Karl$_i$ sich$_i$ das Spiel gewinnen
        In his   autobiography let Karl himself the game win
        'In his autobiography Karl let himself win the game.'

I will not attempt any formalization of the generalization given in (39), since this would involve a more thorough account of reflexivization in German, which is beyond the scope of this paper. As far as causatives are concerned, such an account would also have to include a treatment of data such as (42). As was already noticed in Reis (1976, 27, 42), there are instances of causatives where a PP may be optionally reflexivized, even if the embedded verb does have an external argument, as shown in (42a) and (42c).[31]

---

[29]   A similar proposal is given by Primus (1987, 158).
[30]   In the case of PPs, 'pronominalization' and 'reflexivization' refers to the embedded NP.
[31]   These data are still very poorly understood. Fanselow (1987, 148f.) speculates that some special properties of *für*-phrases might be responsible thereby neglecting data such as (42b) and (42c). Frey (1993, 128) claims that only sentential adjuncts allow

(42)   a. Sie$_i$ ließ den Jungen für sich$_{i/}$ für sie$_i$ arbeiten.
           She let the boy   for herself/ for her work.
           'She let the boy work for her.'
        b. Sie$_i$ ließ den Jungen bei sich$_{i/}$ bei ihr$_i$ wohnen.
           She let the boy   with herself/ with her live
           'She let the boy live with her.'
        c. Sie$_i$ ließ den Jungen den Revolver auf sich$_{i/}$ auf sie$_i$ richten.
           She let the boy   the gun   at herself/ at her aim.
           'She let the boy aim the gun at her.'

6.   Causative passive and passive

The Case Principle and the feature structure descriptions for finite
and non-finite verb forms allow for a unified analysis of the *werden* passive
without requiring different rules for personal and impersonal passives.
Following Heinz and Matiasek (1994) we may propose the feature structure
description given in (43) for the passive auxiliary *werden*.

(43)   Lexical entry for *werden*

$$
\begin{bmatrix}
\text{PHON } \langle werden \rangle \\
\text{S|L|C}
\begin{bmatrix}
\text{HEAD | VFORM } inf \\
\text{EA} \quad \langle \rangle \\
\text{SUBCAT } \boxed{2} \oplus
\left\langle
\begin{bmatrix}
\text{LEX +} \\
\text{S|L|C}
\begin{bmatrix}
\text{HEAD | VFORM } part2 \\
\text{EA} \quad \langle \boxed{1} \rangle \\
\text{SUBCAT } \boxed{2}
\end{bmatrix}
\end{bmatrix}
\right\rangle
\end{bmatrix}
\end{bmatrix}
$$

As the external argument of the embedded verb will not be attracted, it
cannot be realized as a subject. In addition, the participle 2 is required to have
an external argument. Hence, verbs lacking an external argument cannot be
passivized. If the SUBCAT list of a participle 2 includes an argument bearing
alt, it will become the subject. Otherwise, an impersonal passive is formed.
This accounts for the fact that passivization of transitive verbs always triggers
object promotion in German.

---

reflexivization in causatives, which is also falsified by (42b) and (42c), where the PPs
are complements. See also Grewendorf (1983, 178ff.) for some discussion. – My sug-
gestion is that an approach in terms of logophoricity might be promising, especially
when AcI constructions involving perception verbs are taken into consideration.

A comparison with (34), the lexical entry for *lassen*$_2$, shows why the causative passive can be viewed as simultaneously involving causativization and passivization: on the one hand, an external argument is being added (causativization) on the other, the external argument of the embedded verb is being blocked (passivization).

Moreover, passives and causative passives share a semantic characteristic as well, since in both cases an external argument – or, more precisely, its semantic equivalent – can be assumed to be existentially bound. As for passives, existential binding of the external argument might be considered a lexical property of the passive verb form, the participle 2 or the modal *zu*-infinitive, respectively (cf. Wunderlich 1993, 739). Alternatively, one could adopt a default principle to the effect that argument positions left undischarged in clause structure are interpreted as being existentially bound. A principle like this is likely to be needed anyway in order to interpret clauses including predicates with unrealized (optional) arguments. Significantly, the same semantic effect, viz. the existential binding of an external argument, is ultimately triggered by two different lexico-syntactic properties: passivization on the one hand and argument optionalization on the other.

Another typical feature of passive constructions to be found in causative passives are agentive PPs. However, the potential of licensing agentive PPs is not restricted to passive verb forms either (cf. Höhle 1978, 162ff.). Rather, what renders the structural context appropriate for the occurrence of agentive PPs, is the suppression of an external argument, a property shared by causative passives as well.

7.   Conclusion

The analysis of the causative verb *lassen* developed in this paper allows for a unified treatment of German causative constructions. In particular, there is no need to adopt a special kind of (synthetic) passive bare infinitive to occur in causative passives. The analysis is fully consistent with a unified treatment of passive constructions along the lines of Haider (1984, 1986) and Heinz and Matiasek (1994). Crucially, the passive analysis as well as the causative analysis build on the same theoretical assumptions, which gain a firm empirical basis in this way.

Moreover, it could be shown that typical passivelike features exhibited by causative passives such as the occurence of agentive PPs can be attributed

to the suppression of the embedded verb's external argument. However, unlike with passives, suppression of the external argument is not triggered by the embedded verb's argument structure or morphology but by that of the causative verb (optionalization), which explains the peculiar nature of causative passives.

REFERENCES

ABRAHAM, W. (1995). *Deutsche Syntax im Sprachenvergleich. Grundlegung einer typologischen Syntax des Deutschen.* Tübingen: Narr

ACKERMANN, F. & WEBELHUTH, G. (1998). *A Theory of Predicates.* Stanford, CA: CSLI Publications

BECH, G. (1983). *Studien über das deutsche Verbum infinitum.* 2., unveränd. Aufl. (1. Aufl. 1955/57). Tübingen: Niemeyer

BOUMA, G. & VAN NOORD, G. (1998). Word Order Constraints on Verb Clusters in German and Dutch. In: Hinrichs, Kathol & Nakazawa (eds.), pp. 43–72

CHOMSKY, N. (1981). *Lectures on Government and Binding.* Dordrecht, Providence, RI: Foris

COMRIE, B. (1976). Syntax of Causative Constructions: Cross-Language Similarities and Divergences. In: Shibatani, M. (ed.), *The Grammar of Causative Constructions* (pp. 261–313). New York, San Francisco, London: Academic Press

DEMSKE-NEUMANN, U. (1994). *Modales Passiv und Tough Movement. Zur strukturellen Kausalidät eines syntaktischen Wandels im Deutschen und Englischen.* Tübingen: Niemeyer

DOWTY, D.R. (1991). Thematic proto-roles and argument selection. *Language* 67, pp. 547–619

EISENBERG, P. (1994). *Grundriß der deutschen Grammatik.* 3., überarb. Aufl. Stuttgart, Weimar: Metzler

ENGEL, U. (1988). *Deutsche Grammatik.* Heidelberg: Groos

FANSELOW, G. (1987). *Konfigurationalität. Untersuchungen zur Universalgrammatik am Beispiel des Deutschen.* Tübingen: Narr

FREY, W. (1993). *Syntaktische Bedingungen für die semantische Interpretation.* Berlin: Akademie Verlag

GREWENDORF, G. (1983). Reflexivierung in deutschen A.c.I.-Konstruktionen – Kein transformationsgrammatisches Dilemma mehr. *Groninger Arbeiten zur Germanistischen Linguistik* 23, pp. 120–196

GREWENDORF, G. (1988). *Aspekte der deutschen Syntax. Eine Rektions-Bindungs-Analyse.* Tübingen: Narr

GREWENDORF, G. (1989). *Ergativity in German.* Dordrecht, Providence, RI: Foris

GRIMSHAW, J. (1990). *Argument Structure.* Cambridge, MA, London: MIT Press

HAIDER, H. (1984). Was zu haben ist und was zu sein hat. Bemerkungen zum Infinitiv. *Papiere zur Linguistik* 30, pp. 23–36

HAIDER, H. (1985). The Case of German. In: Toman, J. (ed.), *Studies in German Grammar* (pp. 65–101). Dordrecht: Foris

HAIDER, H. (1986). Fehlende Argumente: Vom Paṣsiv zu kohärenten Infinitiven. *Linguistische Berichte* 101, pp. 3–33

HASPELMATH, M. (1990). The grammaticization of passive morphology. *Studies in Language* 14, pp. 25–72

HEINZ, W. & MATIASEK, J. (1994). Argument structure and case assignment in German. In: Nerbonne, Netter & Pollard (eds.), pp. 199–236

HENTSCHEL, E. & WEYDT, H. (1994). *Handbuch der deutschen Grammatik*. 2., durchges. Aufl. Berlin, New York: de Gruyter

HINRICHS, E. & NAKAZAWA, T. (1994). Linearizing AUXs in German Verbal Complexes. In: Nerbonne, Netter & Pollard (eds.), pp. 11–37

HINRICHS, E., KATHOL, A. & NAKAZAWA, T. (eds.) (1998). *Complex Predicates in Nonderivational Syntax*. New York: Academic Press

HÖHLE, T.N. (1978). *Lexikalistische Syntax: Die Aktiv-Passiv-Relation und andere Infinitkonstruktionen im Deutschen*. Tübingen: Niemeyer

JACOBS, J. (1992). Bewegung als Valenzvererbung – Teil 1. *Linguistische Berichte* 138, 85–122

JACOBS, J. (1994). Das lexikalische Fundament der Unterscheidung von obligatorischen und fakultativen Ergänzungen. *Zeitschrift für Germanistische Linguistik* 22, pp. 284–319

KEENAN, E. (1985). Passive in the world's languages. In: Shopen, T. (ed.), *Language typology and syntactic description*. Vol. I: *Clause structure* (pp. 243–281). Cambridge etc.: Cambridge University Press

KISS, T. (1994). Obligatory Coherence: The Structure of German Modal Verb Constructions. In: Nerbonne, Netter & Pollard (eds.), pp. 71–107

KUNZE, J. (1996). Plain Middles and *lassen* Middles in German: Reflexive Constructions and Sentence Perspective. *Linguistics* 34, pp. 645–695

KUNZE, J. (1997). Typen der reflexiven Verbverwendung im Deutschen und ihre Herkunft. *Zeitschrift für Sprachwissenschaft* 16, pp. 83–180

LIEB, H.-H. (1992). Zur Polyfunktionalität des deutschen Vorgangspassivs. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 45, pp. 178–188

MAIER, P. (1987). *Der modale Infinitiv. Syntaktische oder lexikalische Beschreibung?* LILOG-Report 11. IBM Deutschland, WT LILOG, Stuttgart

MEURERS, W.D. (1999). German Partial-VP Topicalization Revisited. In: G. Webelhuth, J.-P. Koenig & A Kathol (eds.): *Lexical and Constructional Aspects of Linguistic Explanation* (pp. 129–144). Stanford, CA: CSLI Publications

MÜLLER, S. (1999). *Deutsche Syntax deklarativ. Head-Driven Phrase Structure Grammar für das Deutsche*. Tübingen: Niemeyer

NERBONNE, J. (1994). Partial verb phrases and spurious ambiguities. In: Nerbonne, Netter & Pollard (eds.), pp. 109–150

NERBONNE, J., NETTER, K. & POLLARD, C. (eds.) (1994). *German in Head-Driven Phrase Structure Grammar*. Stanford, CA: CSLI Publications

POLLARD, C. (1994). Toward a Unified Account of Passive in German. In: Nerbonne, Netter & Pollard (eds.), pp. 273–296

POLLARD, C. (1996). On head non-movement. In: H. Bunt & A. van Horck (eds.), *Discontinuous Constituency* (pp. 279–305). Berlin, New York: Mouton de Gruyter

POLLARD, C. & SAG, I.A. (1987). *Information-based Syntax and Semantics*. Vol. I. *Fundamentals*. Stanford, CA: CSLI Publications

POLLARD, C. & SAG, I.A. (1994). *Head-Driven Phrase Structure Grammar*. Stanford, CA: CSLI Publications & Chicago, IL, London: University of Chicago Press

PRIMUS, B. (1987). *Grammatische Hierarchien. Eine Beschreibung und Erklärung von Regularitäten des Deutschen ohne grammatische Relationen*. München: Fink

PRIMUS, B. (1995). Thematische Struktur und Kasusselektion. In: M. Butt, W. Geuder, S. Reinhard & H. Winhart (eds.), *Processes in Argument Structure. Proceedings of the Workshop "Prozesse in Argumentstrukturen" held at the 17th Annual Meeting of the DGfS, March 1st–3rd 1995, Göttingen*. Tübingen: Seminar für Sprachwissenschaft (SfS-Report-06-95), pp. 89–131

PRIMUS, B. (1999). Rektionsprinzipien. In: H. Wegener (ed.), *Deutsch kontrastiv: typologisch-vergleichende Untersuchungen zur deutschen Grammatik* (pp. 135–170). Tübingen: Stauffenburg

RAPP, I. (1997). *Partizipien und semantische Struktur. Zu passivischen Konstruktionen mit dem 3. Status*. Tübingen: Stauffenburg

REIS, M. (1973). Is there a rule of subject-to-object raising in German? In: Papers from the 9th Regional Meeting of the Chicago Linguistic Society, Vol. 9. Chicago, IL, pp. 519–529

REIS, M. (1976). Reflexivierung in deutschen A.c.I.-Konstruktionen. Ein transformationsgrammatisches Dilemma. *Papiere zur Linguistik* 9, pp. 5–82

SAG, I.A. (1997). English Relative Clause Constructions. *Journal of Linguistics* 33, pp. 431–484

VON STECHOW, A. (1990). Status government and coherence in German. In: G. Grewendorf & W. Sternefeld (eds.), *Scrambling and barriers* (pp. 143–198). Amsterdam, Philadelphia: Benjamins

SUCHSLAND, P. (1987). Zur Syntax und Semantik von "lassen". *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 40, pp. 652–667

WEBELHUTH, G. (1998). Causatives and the Nature of Argument Structure. In: Hinrichs, Kathol & Nakazawa (eds.), pp. 369–422

WUNDERLICH, D. (1993). Diathesen. In: J. Jacobs, A. von Stechow, W. Sternefeld & T. Vennemann (eds.) (1993), *Syntax. Ein internationales Handbuch zeitgenössischer Forschung*. 1. Halbband (pp. 730–747). Berlin, New York: de Gruyter

WUNDERLICH, D. (1997). Cause and the structure of verbs. *Linguistic Inquiry* 28, pp. 27–68

ZIFONUN, G., HOFFMANN, L. & STRECKER, B. (1997). *Grammatik der deutschen Sprache*. 3 Bände. Berlin, New York: de Gruyter