Chapter 16

Impersonal passives in German: some corpus evidence

Erhard Hinrichs
Eberhard Karls University Tübingen

Nerbonne (1982b) offers cross-linguistic evidence that casts doubt on the unified Relational Grammar account of the passive construction as advancement of an object relation, as proposed by Perlmutter (1978) and Perlmutter & Postal (1977). The purpose of the present contribution is to present further corpus evidence in support of the semantic analysis of German impersonal passives proposed by Nerbonne (1982a; 1986). The corpus data are extracted from the TüPP-D/Z treebank of German, a linguistically annotated corpus, which uses as its data source the Scientific Edition of the taz German daily newspaper.

1 Introduction

Impersonal passive constructions have received considerable attention in syntactic theory in general and in the framework of Relational Grammar (RG) in particular, which considers grammatical relations as primitive elements of grammar. Perlmutter (1978) and Perlmutter & Postal (1977) propose a unified RG account of the passive construction as advancement of an object relation (in RG terminology: a 2-relation) to a subject relation (in RG terminology: a 1-relation). Personal passives as in (1) then differ from impersonal passives in that the former involve the promotion of an overt object NP, such as *John* in (1), and the latter promotion of a dummy element, such as German *es*, which can be overtly realized as in (2) or remain covert, as in (3).

(1) John wurde geehrt.
     John AUX   honored
     'John was honored.'

(2) Es wurde gefeiert.
     it AUX   celebrated
     'A celebration happened.'

(3)   Hier wurde gefeiert.
      here AUX   celebrated
      'Here a celebration happened.'

As Nerbonne (1982b) points out, only a subset of intransitive verbs can appear in the impersonal passive construction in German – typically those that imply intentionality on the part of the agent of the action described by the verb. If intentionality is absent, as in the case of *explodieren* 'explode' in (4), then the impersonal passive is unacceptable.

(4)   * Es wurde explodiert.
        it AUX   exploded
        (intended:) 'An explosion was performed'.

The contrast in grammaticality of impersonal passives with unaccusative verbs such as *explodieren* in (4) and with unergative verbs such as *feiern* in (2) and (3) is put forward by Perlmutter (1978) as supporting evidence for the RG analysis of impersonal passive and is explained in terms of the combined effect of the following three independently motivated principles: the Unaccusative Hypothesis, the Final 1 Law, and the 1-Advancement Exclusiveness Law. According to the Unaccusative Hypothesis, certain intransitive clauses such as *explodieren* have an initial 2-relation and no initial 1-relation. The Final 1 Law states that clauses with final unaccusative strata are not well-formed. Therefore, the initial 2-relation in an unaccusative stratum must be promoted to a 1-relation. The 1-Advancement Exclusiveness Law states that no clause can involve more than advancement to a 1-relation. Since impersonal passives involve the promotion of a dummy element to a 1-relation and since an unaccusative clause involves promotion of an initial 2-relation, impersonal passives of unaccusative clauses are then ruled out since they would have to involve two separate advancements to a 1-relation, which is ruled out by the 1-Advancement Exclusiveness Law. By contrast, impersonal passives with unergative verbs as in (2) are not precluded by the 1-Advancement Exclusiveness Law since they involve a single 1-advancement of a dummy.

Perlmutter (1978) and Perlmutter & Postal (1977) put forth the hypothesis that promotion of a dummy to subjecthood is a language universal and that a strong version of the Unaccusative Hypothesis considers the distinction between unaccusativity and unergativity uniform cross-linguistically. In a cross-linguistic study of impersonal passive constructions, Nerbonne (1982b) cites data from Estonian, German, Irish, and Lithuanian that call into question the strong version of the Un-accusative Hypothesis and the universal characterization of impersonal passives as promotion of a dummy element to subject.

2 Impersonal passives in German

Nerbonne (1982b) and Nerbonne (1986) present a wide range of empirical findings for German that dummy *es* in impersonal passives of German is not a subject, contrary

to the prediction of the RG analysis of Perlmutter and of Perlmutter and Postal. The evidence includes *inter alia* the fact that dummy *es* in impersonal passives can only appear in clause-initial position of German V2 clauses.

The lack of overt subjects in German impersonal passives is not limited to impersonal passives with intransitive verbs, but extends also to impersonal passives of verbs with dative objects. The German verb *helfen* 'help' takes a dative object and can be passivized, as shown in (5).

(5)   a.   Dir wird geholfen.
           you AUX helped(PART)
           'You receive help.'

      b.   Ihnen wird geholfen.
           them AUX helped(PART)
           'They receive help.'

      c.   Es wird ihnen geholfen.
           it AUX them helped(PART)
           'They receive help.'

All examples in (5) are impersonal passives, with the sentence-initial position either occupied by the dative object of *helfen*, as in (5a) and (5b), or by the dummy element *es*. Please note the lack of number agreement between the sentence-initial second-person singular and third-person plural pronouns in (5a) and (5b) and the third-person singular finite form *wird* of the auxiliary as further evidence that the pronouns are not subjects.

2.1 The Unaccusative Hypothesis

Nerbonne (1982b) shows that the distinction between unaccusativity and unergativity is far from uniform cross-linguistically. He cites examples such as (6b), where an impersonal passive is formed with an un-accusative verb such as *sterben* 'die', which should not be possible according to the strong version of the Unaccusative Hypothesis of Perlmutter (1978).

(6)   a.   Autofreiheit. Und dafür ist es [das Volk] auch gerne bereit zu zahlen.
           Mit abgeholzten Wäldern, mit stinkender Luft und einem verbogenen
           Rückgrat. Weil das natürlich auch Freiheit ist.
           'Car freedom. And for that it is also gladly willing to pay. With roded
           forests, stinking air, and a bent spine. Because that is, of course, also
           freedom.'

      b.   Ganz   nebenbei: es wird auch gestorben für diese Freiheit.
           entirely aside: it AUX also died(PART) für this   freedom
           'Incidentally: people die for this freedom.'

In the linguistic context immediately preceding (6b), shown in (6a), (6b) is mentioned as an instance of the willingness to sacrifice oneself in support of *Autofreiheit*.

Thus, dying is portrayed as an intentional act, albeit not necessarily as a conscious choice of any victim involved. Or as Nerbonne (1982b) puts it: they do what might be done willingly. More generally, Nerbonne assumes that the semantics of the impersonal passive construction in German carries volitionality as an implicature. Therefore, his semantic account of impersonal passives predicts that verbs such as *sterben* can occur in this construction precisely in contexts such as (6), where volition is implied.

2.2 Impersonal passives and reflexives

Nerbonne (1986) notes that the range of verbs that can appear in the impersonal passive construction in German excludes transitive verbs with accusative objects, which form personal passives with overt subjects. However, there seem to be exceptions to this empirical generalization, as the examples in (7), due to Bierwisch (2006), and in (8), due to Nerbonne (1982b), show.

(7)   a.   Hier wird sich gründlich gereinigt!
            here AUX self carefully cleaned(PART)
            'Here one cleans oneself carefully.'

        b.   Jetzt wird sich nicht unterhalten!
            now AUX self not conversed(PART)
            'No conversation!'

(8)   Jetzt wird sich versammelt.
        now AUX self gathered(PART)
        'People should now gather.'

Verbs such as *reinigen* 'clean', *unterhalten* 'converse, entertain', and *versammeln* 'gather' can appear in impersonal passives with reflexive *sich* as their accusative objects.

The grammaticality judgments for impersonal passives with reflexive *sich* tend to show quite a bit variability across speakers, however. Nerbonne (1982b: 90) comments on the acceptability of example (8) as follows: "These examples sound abominable to many speakers of German, but are perfectly acceptable, if a bit pushy, to many others, particularly in the South." While Bierwisch (2006) rates examples (7) as acceptable, he considers the examples in (9) as unacceptable and highly marginal.

(9)   a. * Es ist sich häufig rasiert   worden.
            it is self often shaved(PART) AUX
            (intended) 'People shaved themselves frequently.'

        b. ?? Heute wird sich geärgert.
            today AUX self be irritated (PART)
            'Today people are irritated.'

One difference between examples (9) and examples (7)-(8) concerns their illocutionary force. The sentences in (7) and (8) are commands, while the sentences in (9)

are not. Since reflexives typically require an antecedent for co-reference, the acceptability of impersonal passives, when used as commands, may be due to the addressees of the command serving as implied discourse antecedents for the reflexive.

3 Corpus data

With the exception of (6b), the above discussion has been based on grammaticality judgement of native speakers reported in the linguistics literature. With the availability of large linguistically annotated text corpora of German, it seems appropriate to dig further into the data available for impersonal passives in German and to obtain additional data points for the range of verbs that can appear in this construction. The corpus study below is based on the Tübingen Partially Parsed Corpus of Written German (TüPP-D/Z).[1]

3.1 The TüPP-D/Z corpus

The TüPP-D/Z treebank uses as its data source the Scientific Edition of the taz German daily newspaper,[2] which includes articles from September 2, 1986 up to May 7, 1999. The corpus consists of 11,512,293 sentences with a total of 204,425,497 tokens.The texts are processed automatically, starting from paragraph, sentence, word form, and token segmentation. All sentences have been automatically annotated with clause structure, topological fields, and chunks, as well as parts of speech and morphological ambiguity classes. The topological field model (Herling 1821; Erdmann 1886; Drach 1937; Höhle 1986) is used to account for regularities in sentence structure and word order across different clause types of German. The part-of-speech annotation uses the STTS labels of the Stuttgart-Tübingen tagset (Schiller et al. 1999), the de-facto standard for the part-of-speech labelling of German text corpora.

Figure 1 illustrates the annotation layers of the TüPP-D/Z, using the passive sentence *Posthum wird der Künstler in diesem Jahr mit zahlreichen Veranstaltungen geehrt.* (Engl.: 'After his death, the artist is honored this year by numerous events.'). The sentence is a verb-second main clause and hence classified as a V2 clause. This V2 node is further annotated by the topological fields VF, short for: Vorfeld ('initial field'), the labels VCL and VCR for the left and right bracket of the clause, respectively, and the label MF, short for: Mittelfeld ('middle field'). The left and right brackets of the clause are realized by the finite auxiliary (FA) *wird* and by the past participle (VP) *geehrt*, respectively. Hence these two labels are appended to the labels for the topological labels VCL and VCR. The Mittelfeld of the sentence in Figure 1 contains three constituents labelled as NC (short for: noun phrase chunk) and PC (short for: prepositional phrase chunk). The Vorfeld of a German V2 clause typically consists of a single constituent; this is also the case for the sentence in Figure 1, where this constituent is erroneously labelled as a noun phrase chunk (NC). This error is due to the mistagging of the word *posthum* by the STTS label NE (short for: named entity), instead of the

---

[1] www.sfs.uni-tuebingen.de/ascl/ressourcen/corpora/tuepp-dz.html
[2] www.taz.de

153

correct label of an adverb. This mistake then percolates up to the incorrect labelling at the chunk level. The annotation mistake for the Vorfeld constituent underscores the fully automatic, and thus error-prone annotation of the TüPP/D-Z, a fact that needs to be kept in mind when querying this treebank. A more in-depth description of the linguistic annotation can be found in the TüPP-D/Z stylebook (Müller 2004), and information about the actual XML encoding of linguistic annotation can be found in the TüPP-D/Z markup guide (Ule 2004).
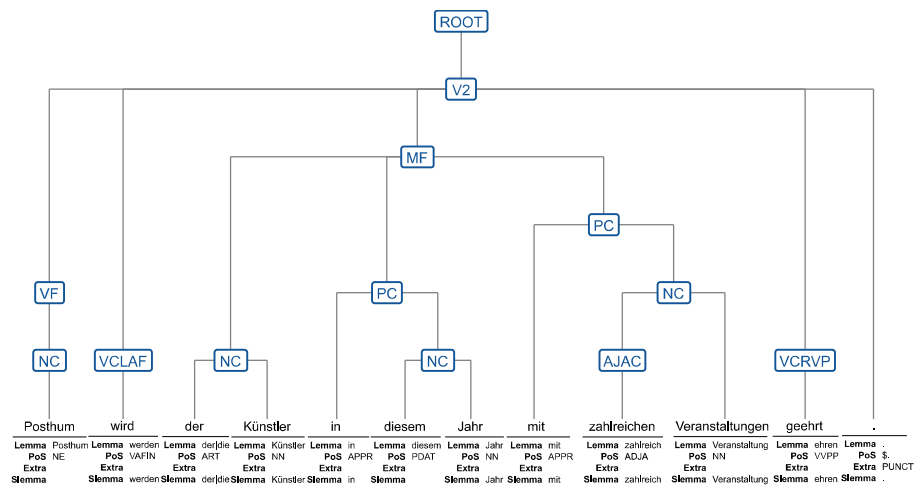

Figure 1: Example sentence from the TüPP-D/Z treebank of German.

3.2 TüPP-D/Z query results

This section summarizes the query results for the impersonal passives found in the TüPP-D/Z treebank. The results were obtained by the TüNDRA web application (Martens 2013), which uses the TIGERSearch (Lezius 2002) query language for treebank search. The corpus findings will focus on the empirical issues discussed in sections 2.1 and 2.2 above.

3.2.1 Impersonal passives and unaccusative verbs

As discussed in section 2.1, Nerbonne's semantic analysis of the impersonal passive construction in German assumes that there is an implicature of intendability associated with this construction. In Nerbonne's account, this implicature is crucial for a semantic characterization of the range of verbs that can appear in German impersonal passives. In section 2.1, the verb *sterben* 'die', as used in example (6b), was mentioned as a case in point. It turns out that such examples, while rare, also occur

in the TüPP-D/Z treebank. The TüPP-D/Z contains twelve occurrences of impersonal passives with the verb *sterben* that include example (10).

(10)　Dort　toben Kämpfe, dort　wird gestorben.
　　　　there rage　fights　　there AUX　died(PART)
　　　　'There fights are raging, there dying is happening.'

Even more numerous than examples with the verb *sterben* are impersonal passives in the TüPP-D/Z with verbs such as *leiden* 'suffer' and *schwitzen* 'perspire'. Such verbs denote involuntary acts, but allow readings of willingly submitting to such situations, as is implied in examples (11) and (13).

(11)　Da　wird mit　Größe　　gelitten　　　und gestorben.
　　　　There AUX　with greatness suffered(PART) and died(PART)
　　　　'There people suffer and die with greatness.'

(12)　Hier wird nicht geweint,　hier　wird auch nicht gelacht,　　　hier　wird
　　　　here AUX　not　　wept(PART) here AUX　also　not　　laughed(PART) here AUX
　　　　gelitten.
　　　　suffered(PART)
　　　　'Here people do not weep, here there is no laughter, here they suffer.'

(13)　An den Tischen wird heftig　　　gemurmelt und geschwitzt.
　　　　at　the　tables　AUX intensively mumbled　and perspired.
　　　　'At the tables there is intensive mumbling and sweating going on.'

3.2.2 Impersonal passives and reflexives

As discussed in section 2.2, the grammaticality judgments for impersonal passives with reflexive *sich* tend to show quite a bit of variability across speakers. Even in a corpus as large as the TüPP-D/Z with appr. 11.5 million sentences, the combination of impersonal passives and reflexives is rather rare. The main finding common to all TüPP-D/Z examples below is that the reflexives that occur in this construction tend to be so-called inherent reflexives, i.e., reflexives that do not occupy an ordinary argument position, but rather appear as improper arguments in the terminology of Bierwisch (2006). Such inherent reflexive verbs include *sich vergnügen* 'to enjoy oneself', *sich amüsieren* 'to amuse oneself', *sich genieren* 'to feel embarrassed', *sich freuen* 'to rejoice', and *sich entblöden* 'to have the effrontery to do something' in examples (14)-(18).

(14)　Auf in den Kampf, jetzt wird sich vergnügt!
　　　　up　in to　　combat now AUX　self　enjoyed
　　　　'Up into combat, now let's have fun.'

(15)　Was　soll's,　jetzt wird sich amüsiert.
　　　　what shall it now AUX　self amused
　　　　'Who cares, now let's have a good time.'

(16)   Der Ruf   der   Stadt ist ruiniert – wo   man auch hinschaut, es wird sich
        the image of the city   is ruined   – where one also looks   it AUX self
        geniert.
        be embarrassed
        'The reputation of the city is ruined – wherever one looks, people are em-
        barassed.'

(17)   ... egal   welches Wahlergebnis: es wird sich immer gefreut
        ... no matter what   election results it AUX self always happy
        'No matter what election result: people are always happy.'

(18)   ... und selbstbestimmtem Leben – es wird sich nicht mal entblödet, das für
        ... and self-determined   life   – it AUX self foolish enough,   that for
        Inhaftierte in den Knästen zu fordern!
        imprisoned in the jails   to demand
        '... and autonomous life – people have the effrontery to demand that for the
        prisoners in jails!'

In addition to mono-lexemic inherent reflexives, the TüPP-D/Z also contains im-
personal passives with inherent reflexives of multi-word expressions such as *sich die
Mühe machen* 'to make the effort to' and *sich lustig machen* 'make fun of' in (19) and
(20).

(19)   Und nun wird sich nicht einmal die Mühe gemacht, in der PDS genauer zu
        and now AUX self not even   the effort made   in the PDS sharper to
        rechnen.
        calculate
        'And now they do not even make an effort in the PDS to calculate more accu-
        rately.

(20)   Es wird sich über Verlagshinweise   zu den stetig   steigenden Preisen
        it AUX self about publishers' comments on the always rising   prices
        und veränderten Busfahrplänen lustig gemacht.
        and changed   bus schedules fun made of
        'Fun is made of publishers' comments about steadily rising prices and
        changed bus schedules.'

While inherent reflexives make up the majority of data points for impersonal passives
with reflexive *sich*, the TüPP-D/Z examples in (21) and (22) arguably involve transi-
tive verbs with reflexive *sich* in a proper argument position of direct object. The verbs
in question are *vereinigen* 'to unite' in (21) and *lieben* 'to make love' in (22), whereas
the verb *sich sehnen* 'to long for' in the same sentence is an inherent reflexive verb.

(21)   ... es wird sich vereinigt und Otto Grotewohls und Wilhelm Piecks
        ... it AUX self united   and Otto Grotewohls und Wilhelm Piecks
        Händedruck auf Großfoto umkringelt.
        handshake on poster   circled
        'People unite and circle Otto Grotwohls' und Wilhelm Pieck's handshake on

poster-sized photo.'

(22)   a.   Ein Ehepaar (Nela Barsch und Jürgen Wink) bekommt Besuch (Eva
            a   couple   (Nela Barsch and Jürgen Wink) have   visitors (Eva
            Mannschott und Viktor Schefe),
            Mannschott und Viktor Schefe)
            'A married couple (Nela Barsch and Jürgen Wink) have visitors (Eva
            Mannschott and Viktor Schefe).'
       b.   es wird sich überkreuz gesehnt und geliebt.
            it AUX self crosswise longed and loved
            'They long for each other and make love across couples.'

It is worth noting that both examples have the pragmatic force of directives. (21)
describes politically correct behavior for citizens of the former German Democratic
Republic, and (22) the plot of a theatre play. Hence, the addressees of the directives
may serve as discourse-implied antecedents for the reflexives and make these, albeit
extremely rare, examples acceptable in the same way as was hypothesized for exam-
ples (7) and (8) in section 2.2 above.

4 Conclusion

This paper has reported on a corpus study of German impersonal passives that uses
the TüPP-D/Z treebank of contemporary German as its data source. The corpus find-
ings lend further empirical support to the semantic analysis of German impersonal
passives proposed by Nerbonne (1982a; 1986). More specifically, the corpus data con-
firm two claims inherent in Nerbonne's analysis: (i) that there is an implicature of
intendability associated with German impersonal passives, which can account for the
acceptability of certain unaccusative verbs in this construction, and (ii) that the use
of reflexive *sich* in German impersonal passives is restricted to the class of inherent
reflexives.

References

Bierwisch, Manfred. 2006. German reflexives as proper and improper arguments.
    In Patrick Brandt & Erich Fuss (eds.), *Form, structure, and grammar: a festschrift
    presented to Günther Grewendorf on occasion of his 60th birthday*, 15–36. Berlin:
    Akademie Verlag.
Drach, Erich. 1937. *Grundgedanken der deutschen Satzlehre.* Frankfurt am Main.
Erdmann, Oskar. 1886. *Grundzüge der deutschen Syntax nach ihrer geschichtlichen En-
    twicklung dargestellt. Erste Abteilung.* Stuttgart: Cotta.
Herling, Simon. 1821. *Über die Topik der deutschen Sprache. Abhandlungen des frank-
    furterischen Gelehrtenvereins für deutsche Sprache, 394, Drittes Stück, 296–362.*
    Frankfurt am Main.

Höhle, Tilman. 1986. Der Begriff 'Mittelfeld'. Anmerkungen über die Theorie der topologischen Felder. In A. Schöne (ed.), *Kontroversen alte und neue. Akten des 7. Internationalen Germanistenkongresses Göttingen*, 329–340. Tübingen: Niemeyer.

Lezius, Wolfgang. 2002. TIGERSearch ein Suchwerkzeug für Baumbanken. In *Tagungsband zur Konvens 2002*.

Martens, Scott. 2013. Tündra: a web application for treebank search and visualization. In Kiril Simov & Petya Osenova (eds.), *Proceedings of the twelfth Workshop on Treebanks and Linguistic Theories*, 133–144. Sofia University.

Müller, Frank Henrik. 2004. *Stylebook for the Tübingen Partially Parsed Corpus of Written German (TüPP-D/Z)*. Technical report. Tübingen, Germany: University of Tübingen, Seminar für Sprachwissenschaft.

Nerbonne, John. 1982a. German impersonal passives: a non-structure-preserving lexical rule. In Dan Flickinger, Marcy Macken & Nancy Wiegand (eds.), *Proceedings of the 1st West Coast Conference on Formal Linguistics*.

Nerbonne, John. 1982b. Some passives not characterized by universal rules: subjectless impersonals. In Brian D. Joseph (ed.), *Grammatical relations and relational grammar*, vol. 26 (OSU Working Papers in Linguistics), 59–92. Department of Linguistics, The Ohio State University, Columbus, OH.

Nerbonne, John. 1986. A phrase-structure grammar for German passives. *Linguistics* 24(5). 907–938.

Perlmutter, David M. 1978. Impersonal Passives and the Unaccusative Hypothesis. In Jeri J. Jaeger, Anthony C. Woodbury, Farrell Ackerman, Christine Chiarello, Orin D. Gensler, John Kingston, Eve E. Sweetser, Henry Thompson & Kenneth W. Whistler (eds.), *Proceedings of the fourth Annual Meeting of the Berkeley Linguistics Society*, 157–189.

Perlmutter, David M. & Paul M. Postal. 1977. Fixme: universal character of passivization. In Kenneth Whistler, Robert D. Van Valin Jr., Chris Chiarello, Jeri J. Jaeger, Miriam Petruck, Henry Thompson, Ronya Javkin & Anthony Woodbury (eds.), *Proceedings of the third Annual Meeting of the Berkeley Linguistics Society*, 394–417.

Schiller, Anne, Simone Teufel, Christine Stöckert & Christine Thielen. 1999. *Guidelines für das Tagging deutscher Textcorpora mit STTS (kleines und großes Tagset)*. Technical report. Universität Stuttgart, Universität Tübingen.

Ule, Tylman. 2004. *Markup Manual for the Tübingen Partially Parsed Corpus of Written German (TüPP-D/Z)*. Technical report. Tübingen, Germany: University of Tübingen, Seminar für Sprachwissenschaft.