

The ditransitive construction and the double accusative construction as allostructions: Corpus-based analysis and pedagogical applications[☆]

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ABSTRACT

The study explores the challenges encountered by Italian-speaking students with the learning of the German ditransitive construction. While prior research has extensively covered theoretical aspects of this construction, limited attention has been paid to its practical implications for foreign language learning.

The study further elaborates on a related construction involving a similar semantics but realized with two accusative objects. Verbs which can fuse with this construction are e.g. *lehren* ('to teach'), *abfragen* ('to interrogate/to test') or *abhören* ('to test orally'). This related construction is often overlooked in language learning materials. The paper addresses this gap by combining empirical evidence from two pretests with Italian learners and a usage-based approach with corpus data, focusing on the verb *lehren*.

The findings contribute to a better understanding and a more authentic description of the ditransitive construction. In a more theoretical perspective, the paper further discusses the relationship between the ditransitive and the double accusative construction in terms of 'allostructions', again with a focus on instantiations with the verb *lehren*. The insights gained with the study can help foster the learning of both constructions.

1. Introduction

The ditransitive construction such as in *He gives his father a book* has attracted the interest of many scholars, both in Anglo-Saxon research (see among others Goldberg, 1992, 1995, and 2006; Gropen et al., 1989; Gropen et al., 1991; Levin, 1993; Rappaport Hovav and Levin, 2008) and in German studies (for instance De Vaere, 2023; Rauth, 2020; Wegener, 1985; Welke, 2011, 2019; Zifonun et al., 1997).¹ However, all these studies are rather theoretical and they do not address the foreign language learning and teaching perspective – apart from Baten and De Cuypere (2014), who investigate the so-called double object construction in Dutch and German, or De Cuypere et al. (2014), who deal with

the order of the two objects in an analysis about Russian learners who have a tendency to transfer the order THEME before RECIPIENT into English. A first detailed empirical study on the difficulties in learning the German ditransitive construction is provided by De Knop and Mollica (2024). Based on a pretest with Italian-speaking learners of German, they found that the correct German argument structure or the order of the dative and accusative objects, especially in pronominal form, are problematic issues for the Italian learners. This latter aspect does not surprise as the Italian order of the two objects is exactly the opposite of the German order. Of particular interest is also another argument structure construction, semantically related to the ditransitive one, which involves the realization of two accusative objects²; verbs that can fuse with this

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¹ The term 'ditransitive construction' originated in English (see e.g. Goldberg, 1995) but is now also used in relation to German and in cross-linguistic studies of Construction Grammar (see e.g. Ziem and Lasch, 2013: 99 and Haspelmath, 2015). In German, this construction is also called 'double object construction' (see e.g. Røreng, 2011; for a diachronic overview of the German ditransitive construction see Rauth, 2020). However, the use of one term or the other does not play a relevant role in traditional foreign language pedagogy because grammar workbooks mostly talk about 'verbs with accusative and dative object'.

² The ditransitive construction and the double accusative construction belong to the transfer constructions family (for an overview see Proost, 2014).

construction are for example *lehren* ('to teach'), *abfragen* ('to interrogate/to test'), or *abhören* ('to test orally'). According to grammar books for German, in their standard and prototypical use they require the double accusative case both for the RECIPIENT and for the THEME although they also realize the transfer semantics of the ditransitive construction (see Section 5).

It is obvious that this linguistic phenomenon constitutes a major challenge for learners of German; however, this topic has hardly been dealt with in the scientific research, in grammar books or manuals for German. This is exactly where our study comes in. It first discusses the tests conducted by De Knop and Mollica (2024) with Italian-speaking learners of German in order to define the difficulties related to the learning of the German ditransitive construction. In a second step it addresses the issue of the argument structure construction with the double accusative object and the transfer meaning, for which an adequate teaching methodology needs to be designed. Our study adopts a usage-based approach by looking at corpus data which offer a more differentiated and authentic picture of the use of the verb *lehren*, thereby contradicting the strict view advocated in grammar books and manuals for the learning of German. Indeed, in the corpus data that we have analyzed this verb *lehren* also appears with a dative and an accusative object instead of two accusative objects. Our analysis aims to determine whether the preference for a certain argument structure construction (double accusative vs. dative object - accusative object) depends on the corpus typology and, if so, what consequences this has for the pedagogy of German as a foreign language.

The paper is structured as follows: in Section 2, the German ditransitive construction and the related argument structure construction with two accusative objects are first described in general terms according to the constructionist approach. The motivation for selecting the construction-based approach for the description of the ditransitive construction can be found in a number of studies. Following Bencini and Goldberg (2000), but also Baicchi (2013), De Knop and Mollica (2016) discuss a series of tests which prove that Italian-speaking learners of German sort constructions, in this case instantiations of the ditransitive construction, even phraseologisms, preferably as instantiations of the abstract ditransitive construction and not so much according to the verb occurring in the phraseologism. In this section we will also zoom in on further assets of Construction Grammar for the definition of the construction with two accusative objects and the transfer semantics. Section 3 adopts a contrastive perspective by focusing on German-Italian differences in the realization of the ditransitive construction. A concrete study illustrating the learning difficulties of the ditransitive construction (see De Knop and Mollica, 2024) is discussed in Section 4. Section 5 focuses on the argument structure with two accusative objects but with a transfer semantics. It deals more specifically with the description of the verb *lehren* in reference grammars and grammar workbooks for learners of German as a foreign language and compares the information found in these books with authentic data from corpora. The aim is to check whether teaching materials for learners of German reflect the authentic usage of native speakers. Section 6 goes one step further as it discusses the relationship between the ditransitive and the double accusative construction in terms of 'allostructions', again with a focus on instantiations with the verb *lehren*. Finally, Section 7 summarizes the findings gained with the study and discusses some pedagogical perspectives resulting from the corpus data analysis.

2. The German ditransitive construction and the related argument structure construction with two accusative objects

2.1. The German ditransitive construction

In the scientific literature on Construction Grammar the ditransitive construction has been defined as a form-meaning pair expressing a transfer semantics (X CAUSES Y TO RECEIVE Z) and the following syntactic form: [Verb Subject Object₁ Object₂] (Goldberg, 1995, 1992,

2006; for German see Proost, 2014)³; in its prototypical use it contains a verb of 'giving', e.g. *geben* 'to give', *schenken* 'to offer a present', *zeigen* 'to show', *verkaufen* 'to sell', etc., a subject and further two objects, an indirect and a direct one. Both objects encode the thematic roles of the RECIPIENT (indirect object) - which is prototypically a living being - and a THEME (direct object). German as a case-marked language ascribes different cases to the two objects. The indirect object is in the dative (dative object), while the direct object is realized in the accusative (accusative object), e.g.

(1) Der Osterhase gibt den Kindern [DATIVE] Schokoladeneier [ACCUSATIVE].

The Easter bunny gives (to) the children chocolate eggs
'The Easter bunny gives chocolate eggs to the children.'

In the unmarked usage and its nominal realization, the dative object precedes the accusative object [dative object > accusative object]. In some cases, however, the accusative object may precede the dative object (see Section 3 below). If the two objects are realized as pronouns, the accusative comes before the dative object.

The ditransitive construction presupposes a successful act of giving between an agent and a recipient (Goldberg, 1995: 141; see also Goldberg, 1992: 58-64). However, in many instantiations of the ditransitive construction, the THEME is not necessarily successfully handed over to the RECIPIENT. Goldberg (1995: 32) illustrates this with the sentence *The mother bakes her daughter a nice cake*. In this example, it is not certain that the RECIPIENT (*her daughter*) will actually get the cake. However, the act of baking is a "necessary precondition" (Goldberg, 1995: 65) for the transfer. This also applies to instantiations with the German verbs *versprechen* ('promise'), *erlauben* ('allow'), or *verweigern* ('refuse'). Thus, with *versprechen* ('promise'), only the subject's intention is expressed; with verbs of permission, it is simply implied that the AGENT makes the transfer possible but does not necessarily cause it (Goldberg, 1995: 32). Expressions with verbs of refusing (*verweigern*) express an antonymic relation to the concept of a successful act of giving, which is possible in principle, but prevented by the AGENT.

According to Goldberg the instantiations of the ditransitive construction are connected to the prototypical construction by so-called "inheritance links" (Goldberg, 1995: 33) from which they inherit the syntactic form while the meaning differs slightly from the central structure. Consequently, "the ditransitive construction can be viewed as a case of *constructional polysemy*: the same form is paired with different but related senses" (Goldberg, 1995: 33). However, this is seen differently in the literature. Symanczyk Joppe et al. (2020: 15) for example speak of metaphorically motivated "constructional variants"; there is no single construction, but a network of related constructions with similar (but not identical) meanings (Symanczyk Joppe et al., 2020: 16).

2.2. The German double accusative construction

In German there are a few verbs which express a ditransitive semantics but are used with both objects in the accusative case. These are, for example, the verbs *lehren* ('to teach'), *abhören* ('to test orally'), *abfragen* ('to test/to interrogate'), *abprüfen* ('to test/to verify'). Most of these verbs are related to teaching, therefore Abraham calls them "didactic verbs" (Abraham, 1983: 51-53). These verbs have hardly been explored in the scientific literature, except for a smaller study by Lang (2007) who discusses some syntactic and semantic constraints that motivate the use of a double accusative (see also Plank, 1987). One asset of his study is that it also looks at corpus data which allow him to offer a more differentiated picture about the use of these verbs. Thus, starting from 3678 occurrences with *lehren* collected in the *Deutsches*

³ Cf. De Knop and Mollica (2017) for an overview of the family of dative constructions in German.

Referenzkorpus (DeReKo) of the Leibniz-Institut für Deutsche Sprache (IDS) in Mannheim, Lang shows that these verbs are also often used with a dative and an accusative object, which reflects the prototypical transfer semantics with the thematic roles RECIPIENT and THEME (see the concrete results in Section 5.2). Following Wahrig (2003: 514), Lang (2007: 5) sees the need to distinguish between active and passive sentences to motivate the use of the objects with *lehren*. In active sentences there is a tendency to use two accusatives, while in the passive, variants with a dative object are also possible, as illustrated with his examples⁴.

- (2) Der Katechismus wird die Kinder gelehrt.
The catechism is the children taught
'The catechism is taught to the children.'
[passive construction, THEME in the nominative (=subject) in front position, RECIPIENT in the accusative]
- (3) Den Kindern wird der Katechismus gelehrt.
To the children is the catechism taught
'The catechism is taught to the children.'
[passive construction, RECIPIENT in the dative in front position, THEME in the nominative (=subject)]
- (4) ? Der Katechismus wird den Kindern gelehrt.
The catechism is to the children taught
'The catechism is taught to the children.'
[passive construction, THEME in the nominative (=subject) in front position, RECIPIENT in the dative]
(Lang, 2007: 5)

It seems that the position of the indirect object plays a major role for the acceptability of the sentence: it is not clear whether variant (4) with the dative object in the middle field and not in front position as in (3) is acceptable or not.⁵

The verbs *abfragen* and *abhören* also occur with two accusatives, but in the corpora there are also frequent occurrences with the valency pattern [subject - dative object - accusative object], as illustrated with the following examples from Lang (2007: 5).

- (5) Der Pfarrer fragt die Kinder den Katechismus ab.
The priest interrogates/asks the children the catechism
'The priest interrogates/asks the children about the catechism.'
[active construction, RECIPIENT in the accusative, THEME in the accusative]
- (6) Der Pfarrer fragt den Kindern den Katechismus ab.
The priest interrogates/asks to the children the catechism
'The priest interrogates/asks the children about the catechism.'
[active construction, RECIPIENT in the dative, THEME in the accusative]

This is even more frequently the case with these two verbs in passive sentences. If the RECIPIENT is the subject of the passive sentence, the THEME remains in the accusative, as illustrated with (7).

- (7) Die Kinder werden den Katechismus abgefragt.
The children are the catechism asked
'The children are interrogated/asked about the catechism.'
[passive construction, RECIPIENT in the nominative (=subject) in front position, THEME in the accusative]

By contrast, if the THEME is the subject of the passive sentence, the RECIPIENT must be expressed in the dative (8). Compared to *lehren*, the dative is even obligatory here.

- (8) Der Katechismus wird den Kindern abgefragt.
The catechism is to the children asked
'The catechism is asked to the children.'
[passive construction, THEME in the nominative (=subject) in front position, RECIPIENT in the dative].

The discussion of the prior examples demonstrates that the various verbs that occur with a double accusative build a continuum, as they can individually occur more or less strictly with the double accusative or with the pattern [subject - dative object - accusative object]. Thus, *lehren* allows both options, with *abfragen* and *abhören* there are also both options, but in the passive construction only the dative object is possible if the THEME is the subject. In our view constructions with a different form can build a network of related constructions if they share functional properties. In such cases the concept of 'allostructions' proves to be very useful – as will be shown in Section 6.

However, to get a more precise and authentic picture of the use of these specific verbs and with a focus on learning and teaching issues it is necessary to look at corpus data. But before doing so, we want to examine the differences in the realization of the German ditransitive and the double accusative constructions in Italian, our learners' native language, as opposed to German.

3. The ditransitive construction in German vs. Italian

As already said, in the unmarked order in the German ditransitive construction the dative object precedes the accusative if both are realized as nominal groups (Lernerz, 1977). However, the German language is characterized by a flexibility in the order of the constituents (see among others Malchukov et al., 2007; Sauermann and Höhle, 2018). Thus, under certain conditions, the inverted order of the objects [accusative object > dative object] is also possible. Moreover, the information structure as a semantic-pragmatic factor determines formal properties. With the following example *Ich gab den Apfel [accusative] einem Kind [dative]* ('I gave the apple to a child'), Malchukov et al. (2007: 13) illustrate how definiteness plays a decisive role in the order of the complements: the accusative object with the definite article constitutes the topic, it occurs before the indefinite dative object which is the comment. Røreng (2011: 1) emphasizes that word order is not really "free" and that object order "results from a complex interplay of various factors of syntactic, semantic, and pragmatic nature".⁶ The individual factors cannot be discussed in detail in the context of this paper, for an overview we refer to Lernerz (1977); Røreng (2011). In summary, it can be stated with Sauermann and Höhle (2018: 1):

In general, these factors predict a preference for placing definite before indefinite, animate before inanimate, [...], given before new, or non-focused before focused constituents.

With regard to the teaching of German to intermediate learners, our study focuses on the unmarked standard position of the objects, i.e. [dative object > accusative object]. The alternative patterns, which are highly context-dependent, can only be addressed with advanced learners after the basic standard rules have been understood and internalized. Of particular importance for this study is the question whether the objects are realized as nouns or pronouns (see also Kempen and Harbusch, 2005; Haspelmath, 2004, 2007). Already in the nominal realization of both objects, a significant difference in the order between German and Italian can be observed⁷.

- (9a) Der Osterhase gibt dem Kind [IND. OBJ.] Schokoladeneier [DIR. OBJ.].
The Easter bunny gives (to) the child chocolate eggs.

⁴ Here we reproduce Lang's (2007) acceptability judgment of the examples (2)–(4).

⁵ Opinions on the acceptability of this example may diverge. One of the reviewers considered example (4) to be more acceptable than Lang's example (2).

⁶ Translations by the authors.

⁷ Since Italian traditionally does not speak of 'case', the terms 'indirect object' and 'direct object' (instead of 'dative' and 'accusative object' for German) are preferred here for both languages in favor of the contrastive perspective.

(9b) Il coniglietto di Pasqua regala uova di cioccolato [DIR. OBJ.] al bambino [IND. OBJ.]

The Easter bunny gives chocolate eggs to the child.
'The Easter bunny gives chocolate eggs to the child.'

In unmarked position, the two nominal objects occur in reverse order in Italian. If one of the objects is realized pronominally, the pronominal object precedes the nominal one, regardless of whether it is the indirect or the direct object. In this case the order depends on the information status of the complements: thematic constituents such as pronouns must precede the comment.⁸ This is true for both German and Italian, as illustrated with the following examples in which the direct object is pronominal.

(10a) Der Osterhase gibt sie [DIR. OBJ.] dem Kind [IND. OBJ.].

The Easter bunny gives them (to) the child

(10b) Il coniglietto di Pasqua le [DIR. OBJ.] regala al bambino [IND. OBJ.]

The Easter bunny them gives to the child
'The Easter bunny gives them (to) the child'

The same applies to the dative object in pronominal form.

(11a) Der Osterhase gibt ihm [IND. OBJ.] Schokoladeneier [DIR. OBJ.].

The Easter bunny gives (to) him chocolate eggs.

(11b) Il coniglietto di Pasqua gli regala [IND. OBJ.] uova di cioccolato [DIR. OBJ.]

The Easter bunny gives him chocolate eggs.
'The Easter bunny gives him chocolate eggs.'

By contrast, if both objects are pronominal, German and Italian differ in the order of the objects.

(12a) Der Osterhase gibt sie [DIR. OBJ.] ihm [IND. OBJ.].

The Easter bunny gives them (to) him

(12b) Il coniglietto di Pasqua glielo [IND. - DIR. OBJ.] regala.

The Easter bunny them (to) him gives
'The Easter bunny gives them to him.'

As can be seen with example (12b), Italian has a complex non-stressed pronoun which unifies the indirect and the direct object in the third person singular.

Given the differences in the order of the objects between German and Italian, it can be expected that Italian-speaking learners transfer the Italian order of the objects when producing German instantiations of the ditransitive construction. The following section looks at this issue in more detail.

4. Learning issues for Italian learners of German

When learning a foreign language, learners tend to reproduce the structures of their mother tongue into the foreign language. This has to do with "transfer effects", i.e. the activation of prior knowledge from one language – mostly from the mother tongue – which is consciously or unconsciously transferred into a foreign language (Jarvis, 2010; Jarvis and Pavlenko, 2008). Research in foreign language acquisition has shown that learners even tend to transfer the frequency of a certain

⁸ The system of personal pronouns in Italian has two types of pronouns: stressed (*pronomi tonici*) and unstressed pronouns (*pronomi atoni*) (cf. Serianni, 2005). We assume here an unstressed realization of the pronoun in Italian because it is context-independent: If the pronominal object is not stressed, it is placed immediately before the finite verb. Stressed pronouns follow the verb: *Il coniglietto di Pasqua gli regala uova di cioccolato* vs. *Il coniglietto di Pasqua regala uova di cioccolato a lui* [IND. OBJ.]. For a more detailed analysis see De Knop and Mollica (2024).

construction from their native language into the foreign language (see Krzeszowski, 1981). An overgeneralization (Goldberg, 2019: 112) can take place. This concerns, for instance, the order of the arguments in a construction, as illustrated by Isurin's (2005) contrastive Russian-English study.

In order to unveil possible difficulties faced by Italian learners of the German ditransitive construction, De Knop and Mollica (2024) started some empirical tests⁹ with a group of students (n = 51) of the *Dipartimento di Lingue, Letterature, Culture e Mediazioni* at the Università degli Studi di Milano. The participants were in their 3rd semester, they had a proficiency level B1/B2 in the Common European Reference Framework for Languages (CEFR) and they had already learned the German ditransitive construction with traditional manuals like *Dafkompakt neu A2*. The pretest consisting of two parts was uploaded on the Moodle-platform of the University of Milano, the students could work at their own pace. Part 1 of the pretest contained a task where the learners had to build 10 sentences with a mix of words in italics, e.g.¹⁰

(13) Peter und seine Schwester sind beim Kaffeetrinken: *erzählen – er – seine Schwester – eine spannende Geschichte.*

'Peter and his sister are having coffee: *tell - him - his sister - an exciting story.*'

This is an example of a ditransitive construction with a ditransitive verb. The task also included some sentences with verbs with two accusatives, e.g.

(14) Wir sind in einem Spanischkurs in Rom: *lehren – der Dozent – die spanische Sprache – die Italiener.*

'We are in a Spanish course in Rome: *teach - the lecturer - the Spanish language – the Italians.*'

Some sentences contained verbs like *fragen* ('to ask') or *diagnostizieren* ('to diagnose') which occur with a prepositional object in German, while the Italian equivalents *domandare* and *diagnosticare* have a ditransitive use, e.g.

(15) In der Mailänder U-Bahn: *fragen – der Tourist – der Kontrolleur – der Weg*

'In the Milano underground: *ask – the tourist – the controller – the way*

The following Table 1 summarizes the results of the pretest, part 1.

This first task unveils interesting results: most mistakes were found at the level of the argument structure (19.2%) especially in connection with the verbs *fragen* 'to ask' and *diagnostizieren* 'diagnose', with which the risk of interference is very high. Sometimes a preposition was used to introduce the object designating the RECIPIENT, although the verb does not require such a preposition, e.g. with the verb *fragen* (16.7%). The correct use of the dative case was also a challenge (9.5%), and some mistakes concerned the accusative object (6.9%). Fewer mistakes were found with the order of the objects (3.8%). This is probably due to the fact that

⁹ The empirical study consisted of a pretest to check the proficiency level of the learners, followed by two posttests. The first posttest was conducted directly after a lecture which focused on syntactic priming and which aimed at fostering the learning of the ditransitive construction, whereas the second posttest was a delayed one (after 4 weeks). This paper focuses on the results of the pretest as they show the difficulties encountered by the learners with the ditransitive construction. For reasons of space, we cannot go into the positive results of the posttests. For more details, see De Knop and Mollica (2024).

¹⁰ All sentences contained a short context so that the unmarked order of the information structure was clear.

Table 1
Results of the pretest (part 1)^b.

51 Participants, 10 sentences Total 504 valid answers	Instantiations	Frequency
Correct answers	285	56.5%
Mistakes		
- wrong argument structure	97	19.2%
- wrong object order	19	3.8%
- wrong ending of the dative object	48	9.5%
- wrong ending of the accusative object	35	6.9%
- wrong preposition ^a	84	16.7%
- <i>lehren</i> [dat. - acc. Obj.]	31	6.2%

^a Some learners produced several mistakes at the same time (e.g. a wrong argument structure + the verb *lehren* with a dative and an accusative object). This explains that the overall percentage of the mistakes is 62.3% which, added to the percentage of the correct answers, leads to more than 100 %.

^b Table 1 shows a different frequency with *lehren* (6.2%). This figure represents the use of *lehren* with a dative object compared with all possible mistakes.

the nominal objects in the pretest had already been presented in the correct order [dative – accusative]. The verb *lehren* – just like its Italian equivalent ‘insegnare’ – is used in a ditransitive argument structure by 61%¹¹ of the students. This deviation from the norm (compare grammar books and learning manuals) is taken into account in the following as it serves as an indication of possible interference errors with the native language Italian (see further below).

Part 2 of the pretest contained another 10 ditransitive sentences, the learners received the prompt that they had to express the objects (accusative and dative) written in italics in pronominal form. Here are some examples of the sentences in task 2.

(16) Die Mutter hat *ihrem Sohn die neue Playstation* geschenkt. [DAT. OBJ.
- ACC. OBJ.]

The mother has to her son a new playstation offered.
‘The mother has offered a new playstation to her son.’

In this part too, there were some sentences with verbs which required two accusatives, as in

(17) Der Dozent lehrt *die Studenten die deutsche Sprache*. [TWO
ACCUSATIVES]

The lecturer teaches the students the German language
‘The lecturer teaches the German language to the students.’

Table 2 offers a summary of the results for part 2 of the pretest.

With this task the order of the pronominal objects is the most problematic issue (25.9%) which does not surprise as the German order is the reverse of the Italian one. Constructions with a verb which requires two accusative objects are a greater challenge in pronominal form (7.7%) rather than in nominal form (see above in Table 1, 6.2%). Objects in the wrong case are not so frequent, for the dative case (5.0%) and for the accusative case (1.3%); 4.0% of the mistakes concern the discontinuous order of the objects, e.g.

(18) **Großmütter erzählen ihnen gerne ihm*.
(lit.) ‘Grandmothers tell to them gladly to him’.

To summarize, the empirical tests with the Italian-speaking learners have brought to light several difficulties with the German ditransitive construction. More specifically, the order of the objects with the proper

¹¹ These are cases where a preposition was used although the German sentence did not require one, e.g. **Der Dozent lehrt die spanische Sprache an die Italiener* (*‘The teacher teaches the Spanish language to the Italians’), instead of *Der Dozent lehrt die Italiener die spanische Sprache* (‘The teacher teaches the Italians the Spanish language’).

Table 2
Results of the pretest (part 2)^a.

51 participants, 10 sentences Total 479 valid answers	Instantiations	Frequency
Correct pronouns	251	52.4%
Mistakes		
- wrong object order	124	25.9%
- discontinuous object order	19	4.0%
- wrong case with the dative object	24	5.0%
- wrong case with the accusative object	6	1.3%
- <i>lehren</i> [dat. - acc. Obj.]	37	7.7%

^a In this case too, some learners produced several mistakes at the same time. The overall percentage of the mistakes is 43.9% which is justified by the lower number of valid answers (479 instead of 510).

case-marking constitutes a major challenge especially in pronominal form. This is due to transfer effects from their native language Italian. For this reason the earlier study by De Knop and Mollica (2024) proposed a teaching methodology based on structural priming with the aim to facilitate the learning of the ditransitive construction. Moreover, the German construction with the double accusative and a transfer semantics is also problematic for learners.¹²

As this latter topic is hardly dealt with in the scientific literature and with reference to pedagogical issues, this paper wants to focus on the use of transfer verbs with two accusative objects and more specifically on the question of whether a strict argument structure with two accusative objects reflects the authentic use of these verbs or whether the dative case for the recipient object is acceptable in some constructional environments. The following section deals with this topic.

5. The double accusative construction: grammar workbooks, reference grammars and corpus data

5.1. Grammar workbooks and reference grammars: an overview for German as a foreign language

With the pretest by De Knop and Mollica (2024) as described in the former section, it has become clear that German verbs which express a transfer semantics, but which are used with two accusatives constitute a hurdle for Italian learners. Before we look at corpus data, we want to see how grammar books and manuals for the learning of German, but also the scientific literature deal with this issue. Most grammar books, often used in the teaching of German as a foreign language (e.g. Helbig and Buscha, 1999 or Hentschel and Weydt, 2013), just quote a list of verbs which have two accusatives as exceptions to the general rule of ditransitive verbs. No explanation is proposed and these specific verbs are not related to the other verbs with a similar semantics but a ditransitive form. The same applies to the so-called *Übungsgrammatiken* (‘exercise grammars’) (e.g. Buscha and Szita, 2011, level B1–B2; Buscha et al., 2013, level C1–C2) which hardly discuss the issue of verbs with the double accusative. But if they do so, they only give a short list with some examples, without creating any kind of semantic relationship between constructions and verbs: not only do they include verbs which express a transfer, like *lehren* (‘to teach’), *abfragen* (‘to interrogate’), *abhören* (‘to test orally’), but also *kosten* (‘to cost’), *nennen* (‘to name’), *schimpfen* (‘to

¹² According to Herbst (2011), in order to account for the idiosyncratic nature of each lexeme, Goldberg’s approach has to be extended by the so-called ‘valency realization principle’. This principle gives precise information about the formal properties of the objects and avoids possible overgeneralizations. This principle is very useful in teaching purposes (Herbst, 2011, 2014).

insult') which do not express a transfer semantics and which occur in different argument constructions.¹³

By contrast, the reference grammars for German give a more correct and complex picture of this phenomenon. For example, the earlier version of the *Duden Grammatik* (2009: 935) argues that with *lehren*¹⁴ there is a tendency to have the RECIPIENT in the dative, especially in the passive. In the latest editions of the *Duden Grammatik* (2022: 497) one can read that with *lehren* the RECIPIENT is just occasionally realized as a dative object, although this hardly occurs in written texts. In the same way Zifonun et al. (1997: 1084) point to a tendency to replace the accusative case for the RECIPIENT by the dative case. They further claim that the THEME-object of the active cannot become the subject in the passive construction if the RECIPIENT remains in the accusative case (Zifonun et al., 1997: 1085). The authors illustrate this with the following example.¹⁵

- (19) *Der englische Walzer [THEME, SUBJECT] wird heute die Mädchen [RECIPIENT, ACC.] gelehrt.
The English Waltz is today the girls taught
'Today the girls are taught the English Waltz.'

Both the *Duden Grammatik* (2016: 944) and Zifonun et al. (1997: 1085) argue that the accusative object of the person (RECIPIENT) in the active sentence is mainly realized as a dative object in the passive.

- (20) Den Mädchen [RECIPIENT, DAT.] wird heute der englische Walzer [THEME, SUBJECT] gelehrt
The girls is today the English Waltz taught
'The girls are taught the English Waltz today.'

However, in the passive construction, the accusative of the person usually becomes the subject, especially when the morphological case of the THEME is not recognizable (Duden, 2016: 944 and 2022: 376).

- (21) Maria [RECIPIENT, SUBJECT] wird heute dies [THEME, ACCUS.] gelehrt.
Maria is today this taught
'Maria is taught this today.'

All this shows that there is a contradiction between what the reference grammars of German propose and how the teaching materials (grammars and exercise grammars) designed for learners of German as a foreign language deal with the same issue. The latter, in fact, do not inform users about a possible alternative argument structure. However, even grammars such as all three editions of the *Duden Grammatik* and Zifonun et al. (1997) remain quite vague and are not really useful for users, especially non-native speakers of German. Furthermore, the latest edition of the *Duden Grammatik* states that the use of the dative for the RECIPIENT is occasional, whereas Zifonun et al. (1997) and the *Duden Grammatik* (2016) mention a certain frequency of use of this alternative argument structure. To get a more accurate and reliable picture of the use of *lehren* the next section looks at corpus data.

¹³ On closer examination we can also notice some errors in such lists. *Nennen* ('to name') and *schimpfen* ('to insult') also both require two objects in the accusative case, but one object designates the RECIPIENT and the second object is a predicative in the accusative case, without being an accusative object, e.g. *Sie nannte ihn einen Dummkopf* 'She called him a fool' (*einen Dummkopf* 'a fool' = predicative in the accusative case).

¹⁴ We examine *lehren* here, as it is the most common didactic verb that allows this alternation between dative and accusative object (see Section 5.2).

¹⁵ This is in line with Lang's (2007) doubts about the acceptability of such constructions (see the discussion of example (4) above).

5.2. Corpus-based analysis: the case of *lehren*

Our teaching experience shows that the verb *lehren* is a frequent verb in the learning and teaching context – much more than the corresponding synonymous verbs *beibringen* or *unterrichten*. This is due to the formal similarity between both didactic verbs *lehren* ('to teach') and *lernen* ('to learn') which appear as a semantic pair for the expression of a converse relation. Therefore, in this section we focus on *lehren* as the prototypical representative of didactic verbs with two accusatives. As already quoted in Section 2.2, Lang (2007: 8) has conducted a first study on *lehren* with corpus data from the *Deutsches Referenzkorpus* (DeReKo), the reference corpus for the German language. It contains the largest collection of German-speaking corpora, not only from Germany, but also from Austria and Switzerland and mainly consists of a large number of newspaper texts as well as a wide range of additional text types. In his collection of 3678 occurrences with *lehren* 428 hits (corresponding to 12% of the examples) had an argument structure with two accusatives, against 216 hits (=6%) with the indirect object in the dative and the direct object in the accusative.¹⁶ This study relativizes the claims in Zifonun et al. (1997) and the *Duden Grammatik* (2016) by showing a stronger tendency to use two accusatives, rather than a dative followed by an accusative object. This in fact confirms the statement in the latest edition of the *Duden Grammatik* that *lehren* in written German is predominantly used with two accusatives (Duden, 2022: 497).

Our study replicates Lang's (2007) corpus-based analysis of the verb *lehren* with the following objectives.

- (i) to see if we get similar results with other corpus data, namely those found in the German Web 2020 (deTenTen20), which is a German corpus in the *Sketch Engine* tool. It consists of texts from the web, which also include internet forums, blogs, etc. Compared with DeReKo, deTenTen20 is a different corpus type and it is interesting to see whether the two different argument structures (the one with the dative and the one with the double accusative) show a divergent usage in the two corpora. It is interesting, in fact, to check whether the use of the dative is more frequent in the German Web since this corpus contains texts with more informal linguistic features.
- (ii) To show that the corpus data make it possible to explore whether the use of *lehren* in the active vs. passive voice conditions the morpho-syntactic realization of the RECIPIENT (as subject or as dative object).
- (iii) And finally, to discuss the implications for the teaching of German as a foreign language.

We first searched with the *Concordance* function under the option "lemma" for occurrences with the verb *lehren* in the corpus deTenTen20 (accessed November 25, 2022). We obtained 437,259 hits, but analyzed the first 1000 examples qualitatively, according to the meaning conveyed by the verb *lehren*, as this verb can have three main meanings (<https://www.duden.de/rechtschreibung/lehren>).

- (a) 'to teach someone something' [three arguments]:
- (22) Die neue Lehrerin lehrte die Kinder das Stricken.
The new teacher taught the children the knitting
'The new teacher taught knitting to the children.'
- (b) 'to show/to demonstrate something' [three arguments; the subject is not animate, the THEME is often expressed in the form of an object clause and the RECIPIENT is frequently not realized]:
- (23) Die Geschichte lehrt (uns), dass es immer wieder Kriege gibt.
The history teaches (us), that there over and over again wars are

¹⁶ The other occurrences appeared in different argument structure constructions. This explains why they were not taken into account in Lang's (2007) study.

Table 3
Results of the corpus-based analysis of the instantiations with *lehren*.

Realization of RECIPIENT and THEME	Number of hits	Frequency
THEME in acc., no RECIPIENT	107	28.08%
RECIPIENT in acc. + object clause	68	17.84%
RECIPIENT in acc. + THEME in acc.	32	8.39%
RECIPIENT unclear case + object clause/infinitive construction	25	6.56%
RECIPIENT unclear case + THEME in acc.	20	5.24%
RECIPIENT in acc., no THEME	18	4.72%
RECIPIENT in dat. + THEME in acc.	14	3.67%
RECIPIENT in dat., no THEME	1	0.26%
Passive sentences	96	25.19%
Total	381	100 % (99,95 %)

‘History shows (us) that there are wars over and over again.’
(c) to work/to teach as a university professor [two arguments¹⁷]
(24) An welcher Universität lehrt dieser Professor jetzt?
At which university teaches this professor now?
‘At which university does this professor teach now?’

For our corpus-based study only those occurrences with meaning (a) were analyzed. This makes about 38% of the occurrences (381). Examples instantiating idioms like *jemanden das Fürchten lehren* (‘to teach somebody the (meaning of) fear’) or *jemanden Mores lehren* (‘rebuke someone’) were also excluded. Table 3 summarizes the results of the analysis.

The analysis of the corpus data makes it possible to get a more differentiated picture of the morpho-syntactic variation. As a general tendency, most instantiations realize the RECIPIENT as an accusative object (for a total percentage of 30.95%, if we add up all the results of Table 3 for the RECIPIENT in the accusative), but the dative is also possible, even if it is more infrequent (3.93% of all occurrences).¹⁸ These results are in line with Lang’s (2007) study, which shows a preference for the accusative case for the RECIPIENT.

But our study goes one step further. Not only did we find instantiations of the construction with the prototypical valency of two nominal or pronominal objects, but also a high percentage of occurrences with the RECIPIENT in combination with a subordinate sentence or an infinitive construction, e.g.

(25) Die Alten lehrten die Jüngeren, nicht aufzufallen. (deTenTen20)
The old taught the younger not to stand out
‘The old people taught the younger ones not to attract negative attention.’

In these cases, the RECIPIENT is mostly in the accusative (17.84%) which corresponds to the general tendency with the two objects in the accusative.¹⁹ In 11.8% of the instantiations it was not possible to determine the morpho-syntactic case: this is due to the fact that the forms *uns* (1st person plural, ‘us’) and *euch* (2nd person plural, ‘you’) are identical in the accusative and dative case.

As we saw above, the reference grammars of German claim that with *lehren* there is a tendency to realize the RECIPIENT as a dative object, especially in the passive. To check this assumption, we had a closer look at our corpus data. Of all the passive sentences (95), most instantiations

¹⁷ In this meaning variant an adverbial nominal phrase appears instead of the two objects.

¹⁸ Constructions with a double accusative also include such constructions in which only the RECIPIENT is realized in the accusative and the THEME is not expressed.

¹⁹ In these instantiations the THEME is either an accusative phrase (5.24%) or it is realized as a subordinate clause (6.56%).

(85, frequency of 89.47%) have a subject in the nominative which corresponds to the THEME expressed with an accusative in the active voice, e.g.

(26) Zu Beginn wurde Grammatik, Dialektik und Rhetorik [THEME, SUBJECT] in lateinischer Sprache gelehrt. (deTenTen20)²⁰
At the beginning was grammar, dialectics and rhetorics in latin language taught
‘At the beginning grammar, dialectics and rhetorics were taught in Latin.’

Contrary to statements in grammar books, it can be observed that the RECIPIENT is mostly not expressed in the passive construction, only 3 instantiations (= frequency of 3.15%) with the RECIPIENT in the dative among the 95 passive occurrences could be found, namely

(27) ... ist das die Übung, wo einem [RECIPIENT, DATIVE OBJECT] gelehrt wird, ein Meister zu sein. (deTenTen20)
... is this the exercise, where to someone taught is, a master to be
‘... is this the exercise where one is taught to be a master.’
(28) Und weiter soll ihnen [RECIPIENT, DATIVE OBJECT] das Evangelium gelehrt werden. (deTenTen20)
And further should to them the Gospel taught be
‘And further the Gospel should be taught to them.’
(29) Wie nennt man es, wenn Kindern [RECIPIENT, DATIVE OBJECT] das nachweislich Falsche gelehrt wird? (deTenTen20)
How calls one it when children the obviously wrong taught is
‘How is it called when children are obviously taught the wrong things?’

Our corpus data did not provide any confirmation for Zifonun et al.’s (1997: 1085) argument that the THEME cannot be expressed by the subject in the passive construction if the RECIPIENT remains in the accusative case. As Lang (2007) notes, in these cases the RECIPIENT in the dative precedes the THEME (see Section 2.2).

In the passive voice the RECIPIENT is not always specified, especially if general principles or claims are expressed.

(30) Latein wird nicht am Mittwoch gelehrt. (deTenTen20)
Latin is not on Wednesday taught.
‘Latin is not taught on Wednesday.’
(31) Historisch wurde Zauberei immer in Familien oder familienähnlichen Strukturen gelehrt. (deTenTen20)
Historically was magic always in families or family-like structures taught
‘Historically magic has always been taught in families or familiar structures.’

Very often the recipient is indirectly expressed, i.e. through metonymy. For instance, among the 95 passive examples, 34 instantiations (35.78%) contained an adverbial typical of the teaching scenery like *in der Schule* (‘at school’), *an der Uni* (‘at university’), *in der Klasse* (‘in the classroom’), *im Unterricht* (‘in the course’), e.g.

(32) In der Schule wurde Russisch gelehrt, von dem wir, Kinder aus deutschen Familien, bei der Einschulung keine Ahnung hatten. (deTenTen20)
In the school was Russian taught, of which we, children from German families, at the school enrolment no idea had
‘At school Russian was taught and we children of German families had no idea of this on the first day at school.’

²⁰ In the corpus sentences we have annotated the morpho-syntactic information in square brackets.

(33) In allen Sprachkursen wird ein ausgewogener Mix aus Grammatik, Lesen, Schreiben, Zuhören und Vokabular gelehrt. (deTenTen20)

In all language courses is a well-balanced mix of grammar, reading, writing, listening and vocabulary taught

‘In all language courses a well-balanced mix of grammar, reading, writing, listening and vocabulary is taught.’

(34) Diese Zusammenhänge werden heute auf unseren Unis nicht mehr gelehrt. (deTenTen20)

These connections are today on our universities not anymore taught

‘Today these connections are not taught at university anymore.’

(35) In einigen Bundesländern wird der Unterricht teilweise in länderübergreifenden Fachklassen gelehrt. (deTenTen20)

In some states is the instruction partly in transnational specialized classes taught

‘In some states, the instruction takes partly place in federal specialized classes.’

The underlined nominal groups are metonymies for the students, the learners, they are related to the domain of teaching. These general claims with adverbials make it possible to discard more specific information about the RECIPIENT in passive sentences. This is also a way to avoid a decision about the morpho-syntactic case.

6. Alternation of argument structure constructions as a case of allostructions

Before we conclude, we want to zoom in on the relationship between the two constructions under study, i.e. between the German ditransitive construction and the argument structure construction with a double accusative and a transfer semantics. So far, we have mainly focused on vertical relationships, i.e. on the question of which verbs can fuse with a given argument structure construction; however, horizontal relationships, i.e. the relationships between the various constructions, are also relevant for “an accurate picture of speakers’ linguistic knowledge” (Perek, 2012: 605; see also Diesse, 2019). It is, therefore, important to try to capture the syntactic and functional differences of two alternative structures in order to understand how a language system works and what knowledge speakers really have about it.

The most recent studies in Construction Grammar emphasize the “paraphrase relations” (Zehentner, 2023: 2) between formally distinct but semantically close constructions. Cappelle (2002, 2006) proposes the term “allostructions” to refer to such constructions (see also De Vaere et al., 2020; Perek, 2012; Zehentner, 2023): “[...] the allostructions are modelled as separate constructions with distinct syntactic features; their meaning is similar, but they can also feature further semantic and/or pragmatic details which distinguish them” (Zehentner, 2023: 4).²¹ In line with Cappelle’s (2006) idea of allostructions, we can assume that the ditransitive construction and the double accusative construction with verbs such as *lehren*, *abhören*, *abfragen* represent two distinct syntactic constructions that are linked by a general transfer semantics but with own discourse-functional properties. Following Cappelle (2006) the relationship between these constructions can be represented as in Fig. 1.²²

On the vertical axis, these two constructions are linked by a “partially

underspecified” (Cappelle, 2006: 18) construction called “constructeme”; it only contains the features which are common to both allostructions, which are less schematic and which are connected by horizontal links (Zehentner, 2023: 3):

Importantly, this kind of representation aptly captures both aspects of an alternation. The constructeme and the inheritance links to each allostruction capture the fact that the constructions are similar and indicate at which level, and the allostructions themselves may include further syntactic and semantic/pragmatic details [...] (Perek, 2015: 153).

At the formal level the constructeme is composed of three constituents, which, however, are not yet specified from a morpho-syntactic point of view. Only at a lower level do we find the morpho-syntactic realization of the two objects. The constructeme and the two allostructions share an abstract meaning (the semantics of transfer) which gets a more specific morpho-syntactic form depending on the verb used. As we have seen, the verb *lehren* (‘to teach’), predominantly appears in the double accusative construction.²³ However, it can also involve, albeit less frequently, a ditransitive realization, thereby constituting from a synchronic²⁴ perspective an alternative argument structure construction (i.e. a case of allostruction from a constructionist point of view). Consequently, instantiations with the double accusative and those with dative and accusative objects are not functionally equivalent. In fact, they differ from each other in two main factors.

- i) Frequency of use: as we have seen in Section 5.2, with the verb *lehren* the construction with the double accusative is decidedly more frequent (30.95% as against 3.93% with the ditransitive construction), although the ditransitive instantiations would be semantically better motivated, since they would allow a clear morpho-syntactic differentiation between RECIPIENT and THEME. The data also show a strong tendency not to express the RECIPIENT (28.08%) or to use *lehren* in passive constructions (in which the THEME is the subject in the nominative, corresponding to the accusative object of the active sentence (22.04%)).
- ii) Linguistic register: it is also important to emphasize that there may be some stylistic differences in the use of the two constructions with *lehren*, as the register of the construction with the double accusative is often perceived as too formal; this is perhaps due to the fact that in German the RECIPIENT is prototypically realized in the dative case. At the same time, however, the data show that native speakers tend to avoid the construction with the dative, probably because it is not considered acceptable in the same way as that with the double accusative (as we saw in Section 5.1, some grammar books recommend the argument structure with the double accusative in written texts). This happens in spite of the semantic analogy with the ditransitive construction, which sounds more ‘natural’ from a cognitive point of view, as it involves a RECIPIENT and a THEME.

It follows that in many situations, it is possible to avoid the issue about the morpho-syntactic case-marking for the semantic role of the RECIPIENT by resorting to synonymous verbs such as *beibringen* (‘to teach’),

²³ Similar observations also apply to *abfragen* (‘to interrogate/to test’) or *abhören* (‘to test orally’), as our preliminary search in corpora has shown.

²⁴ From a diachronic perspective, an alternation between the dative and the accusative for the realization of the RECIPIENT can be observed. For example, in the 17th and 18th centuries it was common to realize *lehren* in combination with the dative case (Paul and Stolte, 1962: 270). The same applies to *abfragen* and, with restrictions, to *abhören* (Grebe, 1968: 35). It should also be noted that even in Latin the verb *doceo* (infinitive *docere*), equivalent to *lehren*, was formerly used with the double accusative. This type of construction has disappeared in Italian.

²¹ The existence of allostructions is a central topic in the literature. The relationship between the ditransitive and the double object constructions has also been described by Goldberg (1995) in terms of “synonymy links” (see Perek (2015: 153–154) for a discussion). It is not possible to address the issue in all its complexity here (for a recent analysis on this phenomenon see Zehentner, 2023).

²² does not specify the order of the constituents, nor their morpho-syntactic realization (nominal vs. pronominal phrase). Note that in the double accusative construction the RECIPIENT normally precedes the THEME.

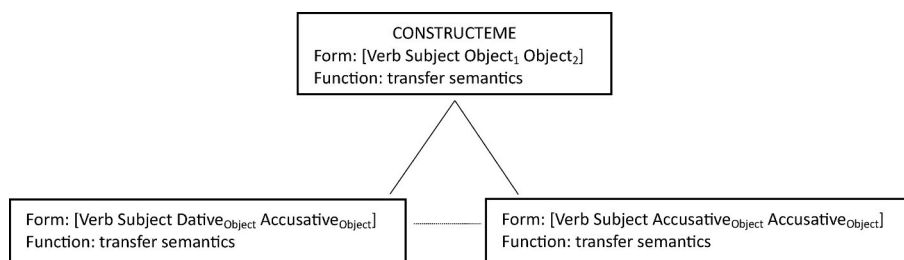


Fig. 1. Cappelle's (2006) allostructions model applied to constructions with transfer semantics.

unterrichten ('to teach') or *instruieren* ('to instruct'), etc. which have a clear ditransitive argument structure.²⁵

Another argument for preferring alternative verbs results from the possible confusion between the verbs *lehren* ('to teach') and *lernen* ('to learn') which are relational antonyms.²⁶ Further studies analyzing the verb *lehren* also in relation to its various synonyms and their stylistic and lexical preferences would therefore be necessary. Corpora of spoken language can help us to a limited extent: in the FOLK corpus of spoken German (<https://agd.ids-mannheim.de/folk.shtml>) we find only eight occurrences with the lemma *lehren*: in two of them the RECIPIENT is in the accusative case, in one occurrence the case cannot be identified (*uns* 'us'). In the last five instantiations the RECIPIENT is not expressed.

7. Conclusions: pedagogical implications and future perspectives

Our study has focused on the German ditransitive construction and the related argument structure construction with two accusative objects and a transfer semantics. With reference to the verb *lehren* and from a constructionist perspective these argument structure constructions can be regarded as allostructions.²⁷ The paper has focused more specifically on the difficulties linked to their learning for Italian-speaking students. Two major issues have been detected: (i) the order of the dative and accusative objects in the ditransitive construction (especially when they are expressed in pronominal form) and (ii) the case-marking of those objects, especially when they appear with some specific verbs such as *lehren* which require two accusatives. The explanations related to these issues in grammar books or manuals for the learning of German remain vague and do not address the possibilities resulting from usage-based data.

Our study has demonstrated that it is useful to look at corpus data to get a more authentic and differentiated picture of the possible uses. Lang (2007) started from data of the DeReKo corpora, whereas our study looked at data from the German deTenTen20. Although these corpora contain very different textual types – mainly newspaper texts vs. texts from the web – the collected occurrences in both studies show a similar picture with the use of the verb *lehren*. It appears that speakers, regardless of the textual genres, prefer to use *lehren* in the construction with the double accusative object. But it is also possible and acceptable to express the RECIPIENT in the dative case. The results of our study are somewhat surprising as it could have been expected, with regard to the textual types, that *lehren* in the ditransitive construction would have been more frequent in the deTenTen20 data as they consist of

occurrences from blogs, internet pages, social networks, etc.; in fact, this textual type may present more informal linguistic features than a textual genre such as newspaper articles (DeReKo texts).

Corpus data can further be exploited to describe the variety of morpho-syntactic contexts and to generalize the uses. While grammar books or manuals for the learning of German describe *lehren* as one of the verbs with the double accusative – often already at B1-level –, they should also point to the possible use of these verbs in a ditransitive construction. This is the more important as learners can encounter these verbs both in the double accusative construction as well as in the ditransitive construction. This might lead to a wrong interpretation of the specific use of these verbs in the ditransitive construction which learners might reject as being “against the norm/the rules”.

Later, probably at B2- or even C1-level, more detailed usage properties should be addressed, since, as we have seen, *lehren* is rarely used with both objects. The analysis of *lehren* with corpus data has also unveiled the following frequent usage properties which are not quoted in the grammar books or the manuals:

- instantiations without the RECIPIENT are possible;
- the THEME can be realized in the form of an object clause, often with the RECIPIENT in the accusative;
- in passive constructions the THEME is regularly expressed as the subject in the nominative;
- in passive sentences *lehren* is often accompanied by nominal groups designating a teaching environment like school, university, courses, etc., without realizing the RECIPIENT.

From a pedagogical perspective, this study reveals important tendencies for the teaching of the ditransitive and double accusative constructions and brings to light the importance of corpus data for a more authentic learning of a foreign language.

Corpora

DeReKo: Das Deutsche Referenzkorpus, <https://www2.ids-mannheim.de/cosmas2/>

German Web 2020 (deTenTen20): <https://www.sketchengine.eu>.

FOLK: Forschungs-und Lehrkorpus Gesprochenes Deutsch, <https://agd.ids-mannheim.de/folk.shtml>.

CRedit authorship contribution statement

Sabine De Knop: Investigation. Fabio Mollica: Investigation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

²⁵ It is not possible here to analyze the differences (including quantitative aspects) between these verbs, which are certainly interesting for future studies.

²⁶ In some German diatopic varieties *lernen* is also used instead of *lehren*.

²⁷ This can also apply to the other didactic verbs like *abfragen* ('to interrogate/to test'), or *abhören* ('to test orally'); however, further corpus-based studies are needed to describe the syntactic behaviour of these verbs.

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