

The embodied teaching of complex verbal constructions with German placement verbs and spatial prepositions

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In recent years, foreign language pedagogy has recognized the need to focus (i) on larger meaningful sequences of words (Nattinger & DeCarrico, 1992; Wray, 2002; Ellis & Cadierno, 2009; Gonzalez Rey, 2013) and (ii) further on communicative goals (Nunan, 1991; Widdowson, 1992; Savignon, 2000). Difficulties in the learning process of a foreign language result from the conceptual and constructional differences between expressions in the native and foreign language. Teaching materials often propose a lexical approach with an unstructured set of constructed examples.

With the postulate of meaningful schematic templates, Construction Grammar (CxG) has a number of assets for foreign language teaching (FLT) and learning (FLL), it allows among others to establish a structured inventory of abstract constructions with prototypical exemplars and inheritance links between the constructions' instantiations. To be proficient in a foreign language also means to use new words in constructions. Learners can be asked to extend the use of new lexical units as slot-fillers into constructional patterns. This is exemplified with the use of German posture and placement verbs in the caused motion construction and the corresponding intransitive locative construction.

But having learned a vast number of constructional templates of a language does not automatically imply that learners can produce L2-constructions and their instantiations in a creative way. Therefore, CxG must be enriched with further insights from Cognitive Linguistics which claims that conceptual categories and their linguistic expressions are the result of embodied processes (Lakoff, 1987). This chapter makes some suggestions for interactive activities which can foster 'embodied teaching and learning'.

Keywords: Applications of Construction Grammar, foreign language teaching, foreign language learning, construction practice, embodiment, German placement verbs, French-speaking learners

1. Introduction

In recent years, foreign language pedagogy has recognized the need to focus on larger meaningful sequences of words (Nattinger & DeCarrico, 1992; Wray, 2002; Ellis & Cadierno, 2009; Gonzalez Rey, 2013) and further on communicative goals (Nunan, 1991; Widdowson, 1992; Savignon, 2000). So-called 'lexical phrases' (Nattinger & DeCarrico, 1992, p.114) are learnt as a whole and because they are embedded in communicative situations they can be memorized and then retrieved more easily. This confirms Pawley and Syder's (1983) earlier insight about the knowledge of a language:

Fluent and idiomatic control of a language rests to a considerable extent on knowledge of a body of 'sentence stems' which are 'institutionalized' or 'lexicalized'. A lexicalized sentence stem is a unit of clause length or longer whose grammatical form and lexical content is wholly or largely fixed. [...] In the store of familiar collocations there are expressions for a wide range of familiar concepts and speech acts, and the speaker is able to retrieve these as wholes or as automatic chains from the long-term memory. (Pawley & Syder, 1983, pp.191–192)

Difficulties in the learning process of a foreign language result from the lack of knowledge of such lexical phrases or formulaic language (Ellis et al., 2016, p.29). Native speakers "recycle phrasal constructions that [they] have memorized from prior use" (Ellis et al., 2016, p.29). The issue is then to see how learners can achieve similar processes as native speakers. This is the most important as "success in second language is heavily dependent on the ability to learn sequences" (Wray, 2002, p.192). Teaching materials (see among others Helbig & Buscha, 2001) are often of little help as they mainly propose simplistic lexical approaches with an unstructured set of constructed examples and some grammar rules (Herbst, 2019).

The advent of Construction Grammar (CxG) brings new perspectives with the application of the concept of 'construction' not only for the description of structures from the native language, but also for learning issues related to FLT and FLL (see among others Ellis & Cadierno (2009), Ellis & Ferreira-Junior (2009a and 2009b), De Knop & Gilquin (2016) or Robinson & Ellis (2008)). Most constructionist studies are based on Goldberg's description (1995, 2006, 2019) which defines constructions as conventional form-meaning mappings with different degrees of abstractness and open slots which have to be filled. Instantiations of constructions are linked to more abstract constructions by semantic links (see Section 2.3). To assume that languages consist of meaningful constructions constitutes a useful asset for the teaching and learning of foreign structures. Accordingly, learners can infer the meaning of new constructional instantiations from their knowledge of the meaning of the abstract constructions. The present contri-

bution aims at illustrating and showing how CxG can foster FLT and FLL. To do so, it describes a domain of application which is problematic for French-speaking learners, namely constructions with the most common German placement verbs like *stellen* ('to put upright'), *setzen* ('to put in a sitting position / to set'), *legen* ('to put in a lying position / to lay'), *stecken* ('to put into something tight') and *hängen* ('to hang'). These verbs are frequently used as 'light verbs' in constructions with prepositional phrases, e.g., *in Verbindung setzen* (lit. 'to set into connection' = 'to connect') or *in den Vordergrund stellen* (lit. 'to put upright in the foreground' = 'to put special emphasis on'). Section 2 deals with this topic in detail and shows with corpus data from the corpora of the Digitales Wörterbuch der Deutschen Sprache (DWDS) that the basic semantics of placement verbs can still be recognized in complex verbal phrases and further that it is sustained by the semantics of the preposition introducing the nominal phrase. It focuses more specifically on the distinction between complex verbal phrases with the placement verb *stellen* ('to put upright'), as opposed to those with *setzen* ('to put in a sitting position / to set'). But having described some patterns or constructions does not guarantee that learners integrate them actively and are able to use them in a productive way. Section 3 shows that practice is needed. Section 4 deals with the design of some interactive activities for construction practice. These activities include exercises motivated by embodiment and metaphor and metonymy. Cognitive Linguistics claims that concepts and conceptualizations are the result of embodiment (Gibbs, 2006). This insight has not been much exploited in FLT for the development of a more adequate teaching methodology. We aim to fill this gap in the fourth section. Finally, Section 5 draws some conclusions and summarizes how CxG and cognitive linguistics views on embodiment turn out to be complementary frameworks for fostering FLT.

2. German constructions with placement verbs

The present section offers a description of placement verbs from different perspectives. It first illustrates very briefly the differences between the large variety of German placement verbs and their French and English counterparts (2.1). In the next sub-section, the semantic uses of the most common German placement verbs are discussed from a cognitive linguistics perspective (2.2), i.e., with reference to underlying conceptualizations. German posture and placement verbs being used in specific constructions, the next section adopts a constructional approach in looking at these constructions (2.3). Finally, Section 2.4 focuses on a corpus linguistic study of complex verbal constructions with placement verbs and

prepositional phrases. The corpus data allow for a more fine-grained description of such examples.

2.1 Contrastive description of constructions with placement and posture verbs

When learning German, students are confronted with a variety of specific so-called posture (PSVs) or placement verbs (PLVs)¹ to simply express where persons and objects are or ‘are put’. PLVs are etymologically and semantically related to PSVs (Berthele, 2012, p. 149; Kluge, 1883/2011) which express how objects and persons ‘are’ and with which they share the orientational semantics: in a lying position (PSV *liegen*/PLV *legen*), in an upright, standing position (PSV *stehen*/PLV *stellen*) or in a sitting position (PSV *sitzen*/PLV *setzen*) (see De Knop (2014), Fagan (1991), Serra-Borneto (1995)). There are more posture and placement verbs, e.g., *hängen* (‘to hang’, PSV and PLV), *stecken* (‘to stick/to be stuck’, PSV and PLV), or *lehnen* (‘to lean’, PSV).

For the conceptualization of posture, other languages like French or English preferably use generic terms, like Fr. *être* (‘to be’) or Engl. *to be*. French can also express the positional orientation, but it uses different verbal phrases like Fr. *être debout* (‘to be standing’), Fr. *être couché* (‘to be lying’), Fr. *être assis* (‘to be sitting’), or Fr. *être fourré* (‘to be thrust’) (see also Ameka & Levinson (2007), Gullberg (2009), Koch (2012, 2016)). These French expressions are complex verbal phrases consisting of the general verb *être* (‘to be’) with an additional past participle (*couché/assis/fourré*) or an adverb (*debout*). There is no specific simple verb for the expression of the different postures in French except for *pendre* (‘to hang’). This reflects the general tendency of French to prefer the generic verb *être* for the expression of postures, thereby focusing on the conceptualization of existence and not so much orientation in space (compare Koch, 2012). By contrast, English as a Germanic language has simple verbal counterparts for the expression of posture, i.e., *to lie*, *to sit* or *to stand*. But like French, it uses these verbs more rarely, as illustrated in the following contrastive examples.

- (1) a. Germ. *Gestern lagen meine Bücher noch auf dem Tisch.*
Lit. ‘Yesterday lay my books still on the table.’
- b. Fr. *Hier mes livres étaient encore sur la table.*
- c. Engl. *Yesterday my books were still on the table.*

1. In the scientific literature the term ‘put-verb’ (Berthele (2012), Bowerman et al. (2004), Kopecka & Narasimhan (2012)) is sometimes used, but we will rather adopt the term ‘placement verb’ proposed by Gullberg (2009).

- (2) a. Germ. *Nun sitzt eine Fliege auf dem Kuchen.*
 Lit. 'Now a fly sits on the cake.'
 b. Fr. *Maintenant une mouche est sur le gâteau/Maintenant il y a une mouche sur le gâteau.*
 c. Engl. *Now a fly is on the cake/Now there is a fly on the cake.*

The first translation of Example (2) into French (2b) and English (2c) is grammatically correct, but sounds somewhat unauthentic. This has to do with the distinction between thematic and rhematic localization, as suggested by Koch (2012 & 2016). An example like

- (3) a. Germ. *Das Buch liegt auf dem Tisch.*
 Lit. 'The book lies on the table.'

instantiates thematic localization and can be translated into French by

- (3) b. Fr. *Le livre est sur la table.*
 Lit. 'The book is on the table.'

By contrast, example

- (4) a. Germ. *Auf dem Tisch liegt ein Buch.*
 Lit. 'On the table lies a book.'

expresses a rhematic localization, it can only be translated by a construction with French *il y a* ('there is'),

- (4) b. Fr. *Il y a un livre sur la table.*
 Lit. 'There is a book on the table.'

This expression of rhematic localization is, according to Koch (2016, p.35), close to the existential conceptualization as illustrated by his example:

- (5) a. Germ. *Es gibt viele unglückliche Menschen.*
 Lit. 'There have many unhappy people.'

corresponding to French

- (5) b. Fr. *Il y a beaucoup de gens malheureux.*
 Lit. 'There are many unhappy people.'

These few considerations already reveal the necessity to describe the use of verbs in larger sequences. As we will see in the next sections, Construction Grammar with its constructional units offers an adequate framework to do so.

The German PLVs *legen*, *stellen* and *setzen* are the causative equivalents of the PSVs. In French or English similar verbs expressing a spatial orientation can also be found, e.g., the PLVs Fr. *(se) coucher* and Engl. *to lay down*, Fr. *(se) lever/mettre*

debout and Engl. *to stand up / to put upright*, Fr. *(s')asseoir* and Engl. *to sit down / to set*, and so on. But the question is not whether other languages have similar verbs like in German, but much more in which constructions and when they are used. As a general tendency in both French and English the manner or the orientation of localization and motion is not necessarily expressed and generic PLVs like Fr. *mettre* and Engl. *to put* are mostly used, as illustrated in the following sets of examples (see also De Knop, 2016; De Knop & Gallez, 2013).

- (6) a. Germ. *Vati legt die Zeitung auf den Tisch.*
b. Fr. *Papa met le journal sur la table.*
c. Engl. *Daddy puts (/lays) the paper on the table.*
- (7) a. Germ. *Vati stellt die Vase auf den Tisch.*
b. Fr. *Papa met le vase sur la table.*
c. Engl. *Daddy puts (upright) the vase on the table.*
- (8) a. Germ. *Vati setzt das Baby in den Kinderstuhl.*
b. Fr. *Papa met le bébé dans la chaise.*
c. Engl. *Daddy puts (/sets) the baby into the children chair.*
- (9) a. Germ. *Vati hängt das Bild an die Wand.*
b. Fr. *Papa met le cadre au mur.*
c. Engl. *Daddy hangs the picture on the wall.*

Having to differentiate the conceptualization of placement with the selection of one of the PLVs in German can sometimes be difficult for speakers because of the lack of contextual clues. A simple question like Engl. *Where have you put the flowers?* does not express anything about the orientation of the flowers and as a consequence, it can be translated either with *stellen* (if the flowers are in a vase) or with *legen* (if they are still lying on the table). Therefore, it does not surprise that speakers of German sometimes use the verb *tun* ('to do') as default verb to express a general motion/localization of objects, e.g., *Wo hast Du die Zeitung hingetan?* (lit. 'Where have you done the paper?'). The use of this verb is very colloquial and not acceptable in correct, standard German. But this demonstrates the need to have a generic term for the expression of localization or motion.

Not only are PSVs and PLVs used to refer to the concrete position or placement of objects or persons, but they also appear in more abstract expressions like in the small list hereunder.

- (10) a. Germ. *Die Verantwortung liegt bei dir.*

[PSV]

- Lit. 'The responsibility lies with you.'
- b. Fr. *Tu as la responsabilité.*
- c. Engl. *You have the responsibility.*

- (11) a. Germ. *Der Lehrer setzt ein Komma zwischen die beiden Wörter.*

[PLV]

Lit. 'The teacher sets a comma between both words.'

- b. Fr. *L'enseignant met une virgule entre les deux mots.*

- c. Engl. *The teacher puts a comma between both words.*

Section 2.2 deals with these more abstract uses in detail.

And finally, PSVs and PLVs are also often used in fixed German collocations like complex verbal phrases (CVP) (in German so-called 'Funktionsverbgefüge', see among others Eisenberg (2006), Hermann (2020) or Van Pottelberge (2001)), e.g.,

- (12) *Der Bundeskanzler erklärt, er werde sich in jedem Fall wieder telefonisch mit M. Thatcher in Verbindung setzen.*

(DWDS, Deutsche Einheit, Berlin: Directmedia Publ. 2000 [1989], S. 1437)

Lit. 'The chancellor explains, he will in any case again per telephone with M. Thatcher into contact set.'

'The chancellor explains that in any case he will get in touch with M. Thatcher per telephone.'

- (13) *Arbeitslosen und anderen Werktätigen werden Arbeitsplätze zur Verfügung gestellt.*

(DWDS, 1975-05-22, Zeitung Archiv der Gegenwart, 2001)

Lit. 'To unemployed and other working people jobs will be to supplience put upright.'

'Unemployed and other working people will be provided with jobs.'

Here too, French and English use other ways of expressions, namely the generic term *mettre* in French in (12') *mettre en rapport* or (13') *mettre à disposition*, whereas English adopts simple verbs like (12'') *to contact* or (13'') *to provide something*. No need to say that from a learning point of view, to understand or recognize the motivation behind the use of PSVs and PLVs in German constructions, and more specifically in complex verbal phrases, constitutes a challenge. It is for instance not clear why *setzen* is used in Example (12) and *stellen* in (13). Section 2.4 zooms in onto these issues in detail.

2.2 Cognitive linguistic description of the semantic uses of PLVs

Cognitive linguistics with its postulate of language as the expression of conceptualizations offers some avenues to understand the motivation behind the use of PSVs and PLVs. By way of exemplification the present section focuses on the conceptual differences in the semantic uses of the PLVs *stellen* and *setzen*. Inspired by the studies for the closely related Germanic language Dutch (compare Lemmens

(2002) and (2006), Lemmens & Perrez (2010)) and by Fagan (1991), Kutscher and Schultze-Berndt (2007) and Serra-Borneto (1995, 1997) for German, we can distinguish three main semantic uses for PSVs and PLVs: a concrete positional, a concrete locational and a metaphorical use. PLVs, as opposed to PSVs, do not instantiate the concrete position, but the localization of persons or objects, as illustrated in the following examples,

- (14) *Am Morgen kam mein Vater, machte Tee und ein weiches Ei, schnitt Brot und stellte all das vor sie hin, ...*
 (DWDS, Hermann, Judith: Sommerhaus, später, Frankfurt a. M.: Fischer-Taschenbuch-Verl. 2000 [1998], S. 95)
 Lit. 'In the morning came my father, made tea and a soft egg, cut bread and put upright all that in front of her, ...'
 'In the morning my father came, made some tea and a soft-boiled egg, cut some bread and put everything in front of her, ...'
- (15) *Müde von der durchwachten Nacht, setzte ich mich schließlich auf den Fußboden und lehnte mit dem Rücken an die Wand.*
 (DWDS, Langhoff, Wolfgang: Die Moorsoldaten, Stuttgart: Verl. Neuer Weg 1978 [1935], S. 25)
 Lit. 'Tired of the awakened night, I set myself finally on the floor and leaned with the back at the wall.'
 'Tired because I had stayed awake during the night, I sat down on the floor and leaned with my back against the wall.'

The expression of localization is an answer to the question *where/where to?* *Setzen* expresses further conceptualizations, i.e., the localization of small animals, like birds or insects, e.g.,

- (16) *Die Fliege setzt sich unter das Mikroskop und kommt sich als ein Pferd vor.*
 (DWDS, Döblin, Alfred: Berlin Alexanderplatz, Olten: Walter 1961 [1929], S. 57)
 Lit. 'The fly sets itself under the microscope and has the impression to be a horse.'
 'The fly sits down under the microscope and has the impression to be a horse.'
- (17) *Der frei umherfliegende Vogel setzte sich mit Vorliebe seinem Herrn auf die Schulter,...*
 (DWDS, Bredel, Willi: Die Väter. In: ders., Gesammelte Werke in Einzelausgaben, Bd. 7, Berlin: Aufbau-Verl. 1973 [1946], S. 217)
 Lit. 'The freely flying around bird set itself with preference to its master on the shoulder...'
 'The bird that flew around freely preferred to sit down on the shoulder of its master...'

Stellen and *setzen* are also both used for more abstract senses, i.e., to express metaphorical extension.

- (18) *Wir haben alle Einwohner von Rwanda vor ihre historische Verantwortung gestellt.*

(DWDS, Archiv der Gegenwart, 2001 [1977])

Lit. 'We have all inhabitants of Rwanda in front of their historical responsibility put upright.'

'We have put all inhabitants of Rwanda in front of their historical responsibility.'

- (19) *In das Kommando, die Truppen und Dienststellen wird völliges Vertrauen gesetzt, daß sie mit einem völligen Erfolg endet.*

(DWDS, Archiv der Gegenwart, 2001[1960])

Lit. 'Into the commando, the troops and service departments is complete confidence set, that they end with complete success.'

'We have full confidence in our commando, troops and service departments, so that they end with full success.'

In these metaphorical uses, *stellen* conceptualizes the placement of persons in front of the responsibility (Example (18)), whereas *setzen* appears in relation with the conceptualization of containers, confidence in Example (19) being seen as something which can be put into commandoes or troops. These examples are characterized by a semantic incompatibility between the PLV and the complements.

Setzen has more varied uses than *stellen*, i.e., also for the 'localization' of written texts or signs.²

- (20) *Man kann sie mit einem Ausrufungszeichen beschließen und fängt den Text dann mit großem Buchstaben an, man kann nach der Anrede auch ein Komma setzen und schreibt dann den Text mit kleinem Buchstaben weiter.*

(Oheim, Gertrud: Einmaleins des guten Tons, Gütersloh: Bertelsmann 1957, S. 401)

Lit. 'One can end it with an exclamation mark and one starts the text then with capital letter, one can after the title set a comma and write then the text further with a small letter.'

'One can end it with an exclamation mark and start the text with a capital letter, one can write a comma after the title and then go on writing the text with a small letter.'

2. Interestingly, it is the corresponding PSV *stehen* which is used for the expression of posture for written texts, e.g. *Fast zwanzig Jahre ist es her, daß bei der Inflationsrate eine Null vor dem Komma stand.* (Die Zeit, 07.03.1986, Nr. 11) (Lit. 'It is almost 20 years ago that with the inflation rate a zero stood before the comma').

Contact is also often expressed with *setzen*, e.g., between glasses and the nose,

- (21) *Im Mittelalter, als die Brille erfunden wurde, musste man sich noch regelrechte Ungetüme auf die Nase setzen, wenn man besser sehen wollte.*
(<https://www.br.de/kinder/brille-fuer-den-scharfen-durchblick-kinder-lexikon-100.html>)

Lit. 'In the middle-ages, when glasses were invented, one had to set real monsters on the nose, if one wanted to see better.'

'In the middle-ages, when glasses were invented, one had to put real monsters on one's nose if one wanted to see better.'

In Section 2.4 we will see how the description of the conceptualizations associated with both PLVs is also useful for the understanding of the motivation behind their use in (fixed) complex verbal phrases. But before doing so, let us look at the constructions in which the PLVs are preferably used.

2.3 Constructionist description of the use of PLVs

The above examples of constructions with the PLVs all instantiate the same arguments, namely an agent who/which causes a theme to move towards a goal. This predication is realized by the syntactic structure of causative constructions, either in a literal or metaphorical sense. Goldberg (2006, p. 35) rather speaks of caused motion constructions arguing that caused motion and causative constructions share the same surface syntax and are both causative. In this paper we make a distinction between the actual causative construction which instantiates a motion or placement verb (see Example (22) hereunder) and the caused motion construction with a non-motion verb, as illustrated in the well-known Example (23) (also see De Knop, 2020):

- (22) *Peter legt das Handtuch auf den Tisch.*
Lit. 'Peter lays the towel on the table'
- (23) *Peter niest den Schaum vom Cappuccino.*
Lit. 'Peter sneezes the foam off the cappuccino.'

Following Goldberg (1995) the causative construction exemplified in (24) can be represented as in Figure 1:

- (24) *Die kleine Tochter stellte die Teller in die Spülmaschine.*
Lit. 'The young daughter put upright the plates into the dish-washer.'

Goldberg's (1995, 2006, 2019) constructionist framework has the advantage of allying in one frame the semantic and syntactic description of constructions and of defining the possible lexemes which can map with the construction or fill

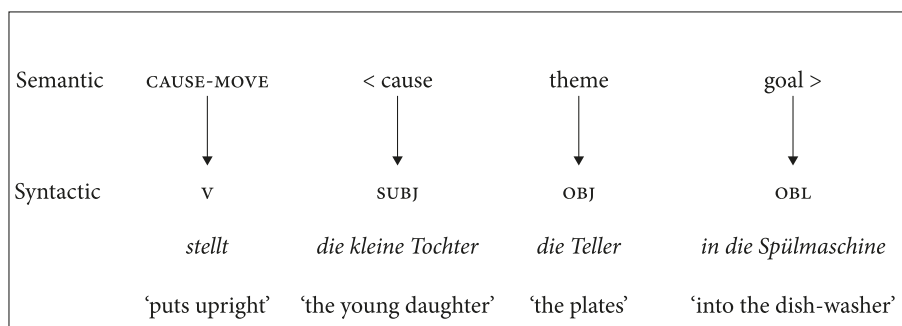


Figure 1. The causative construction

the different slots of the construction. In this example the subject expresses the 'causer' who causes the motion of a theme towards a goal, which is itself expressed by an oblique element. In German causative constructions the use of a specific placement verb is preferred, not to say obligatory, for the expression of concrete motion. The obligation to differentiate the expressions of localization is so entrenched that the German language does not even have a generic term for the localization of objects³ like English *to put* or French *mettre* ('to put'). Although English belongs to the category of Germanic languages (Talmy, 2000), the general verb *put* is preferred in causative constructions too (see also Stefanowitsch, 2013).

A study of the use of PLVs in the larger frame of constructions allows to describe them in a more natural way, i.e., in relation with whole sequences (see also Ellis & Ferreira, 2009a, 2009b). Especially the form-meaning mapping makes it possible to focus on relevant aspects in constructions like the proper case-marking typical of German. This appears at the level of the oblique element, which is introduced by a spatial preposition – most frequently a so-called "two-way preposition" (Serra-Borneto, 1997; Smith, 1987, 1993, 1995) – which can require either the accusative or the dative case, depending on the meaning conveyed. For the expression of a dynamic, incipient, not yet established movement towards a goal the accusative is required. If an already established process or a non-telic motion is meant, the dative is used after the two-way preposition (see also Willems (2011) or Willems et al. (2018)). Accordingly, in the causative construction the accusative case is used after the two-way preposition because the construction expresses incipient motion along a path and towards a goal. This can also be non-actual motion (Blomberg, 2017). In this case, the construction can contain a motion verb to realize non-actual motion, i.e., more abstract events

3. This is not totally true, as we already claimed in Section 2.1: in colloquial German the verb *tun* ('to do') is frequently used to express a general motion/localization of objects, e.g. *Wo hast Du die Zeitung hingetan?* ('Where have you done the paper?').

where no real transfer or change is expressed, but measurement or quantity which is visually perceived as motion.⁴ Such events are re-interpreted as dynamic by speakers, e.g.,

- (25) *Die Firma erstreckt ihre Tätigkeit ins Ausland.*
Lit. ‘The company stretches / expands its activity abroad.’

We cannot go into the details of this category of examples, but refer to De Knop (2020).

As stated in Section 2.1, PSVs and PLVs are semantically linked to each other. They also appear in related constructions which instantiate similar arguments. While PLVs are used in causative constructions, PSVs appear in intransitive locative constructions, as illustrated in

- (26) *Die Teller stehen in der Spülmaschine.*
Lit. ‘The plates stand in the dishwasher.’

The intransitive locative construction does not express a cause which would trigger a motion along a path towards a goal, but a location. The oblique element expresses a static location or place and therefore it is in the dative case. This construction can be represented as follows:

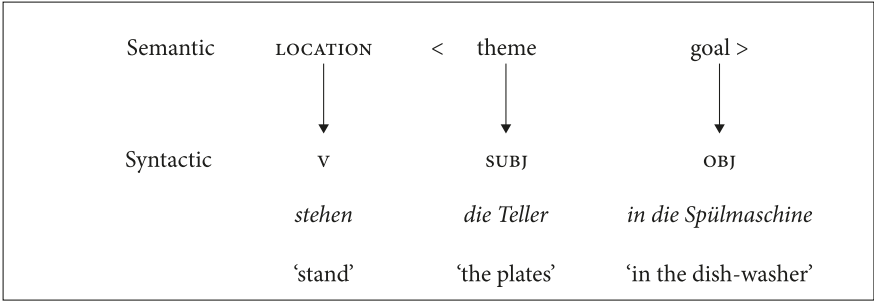


Figure 2. The intransitive locative construction

Goldberg (1995, p.160) claims that the causative construction and the intransitive locative construction are closely linked to each other, and indeed they share the same theme, as can be recognized with Examples (24) and (26): the theme real-

4. Expressions of non-actual motion should not be confounded with causative constructions expressing subjective motion (Langacker, 2006), these are characterized by the use of a non-motion verb. Still, these constructions express an event of motion from A to Z. The use of the accusative case sustains the not yet established motion event. This is e.g. illustrated in constructions with the verb *übersetzen* (‘translate’) in the following example: *Maria übersetzt den Text ins Deutsche* (lit. ‘Maria translates the text into German’). For more details see De Knop (2020).

ized as an object in the causative construction (24) corresponds to the subject in the intransitive locative construction (26). Both constructions are related to each other by a subpart link which is one of the possible semantic inheritance links, as defined by Goldberg (1995, p. 78).

To sum up, the construction-based description of the use of verbs in the larger frame of constructions offers a further asset, which is its integrative character. As verbal lexemes are not described in isolation, but in larger sequences, the motivation for the selection of a specific morpho-syntactic case can be better recognized and defined. Further, as both constructions, i.e., the causative and the intransitive locative, are semantically related, they can be described in parallel. But there is a further asset in the constructionist description of PSVs and PLVs, more specifically for the study of fixed complex verbal phrases with PLVs. Section 2.4 deals with this topic in detail.

2.4 Corpus-linguistic analysis of complex verbal constructions with PLVs

German PLVs are frequently used in more or less fixed complex verbal phrases which also instantiate the causative construction. These phrases are known in the German scientific literature as “Funktionsverbgefüge” (FVG), with a so-called “Funktionsverb”, i.e., a verb which is said to be “semantically empty” (see Eisenberg (2013), Fleischer (1997), Heine (2006), Herrlitz (1973), von Polenz (1963)). However, the following analysis reveals that the basic conceptualizations of PLVs is still present in most FVGs and accordingly that their use is motivated. The constitutive elements of FVGs have been defined in various ways. In this sense, complex verbal phrases can include a prepositional phrase, as in *etwas in den Vordergrund stellen*, lit. ‘to put upright something into the foreground’ (= ‘to make it more visible’), sometimes FVGs consist only of a verb with a direct object which corresponds to the theme, e.g., *eine Frage stellen*, lit. ‘to ask a question’. For his large empirical study Kamber (2006, p. 113) has defined four different criteria which allow him to categorize the examples into more or less prototypical classes:

- a. the verb has lost its meaning
- b. the noun is a verbal abstractum
- c. the verb is a placement or posture verb
- d. the nominal phrase can be a prepositional phrase.

Prototypical FVGs meet all four criteria, e.g., *etwas in Bewegung setzen* (lit. ‘to set something into motion’), they instantiate the syntax of the causative construction as discussed in Section 2.3. But we have to make a further distinction between different possible semantic interpretations of the complex verbal phrases under study. Let us first look at a few examples:

- (27) *Fleisch darf man nicht auf Eis legen; es verdirbt dort schneller als im Kühlschranks.*

(DWDS, Das Lexikon der Hausfrau, Berlin: Ullstein 1937 [1932], S. 78)

Lit. 'One may not lay meat on ice; it perishes there more quickly than in the fridge.'

'One may not put meat on ice; it perishes more quickly there than in the fridge.'

As opposed to

- (28) *..., daß die Sowjets ihr Projekt „Freie Stadt West-Berlin“ auf Eis gelegt hatten.*

(DWDS, Brandt, Willy: Erinnerungen, Berlin: Ullstein 1997, S. 72)

Lit. '..., that the Soviets their project "Freie Stadt West-Berlin" onto ice had laid.'

'..., that the Soviets put off their project "Freie Stadt West-Berlin".'

The complex verbal phrase as a whole can be understood either literally (Example (27)), or metaphorically (28). The difference depends on the constraints at the level of the theme argument. In (27) the concrete theme 'meat' is semantically compatible with the concrete complex verbal phrase, in (28) there is a semantic incompatibility between the theme *Projekt*, an abstract entity, and the concrete complex verbal phrase. In recent years a debate has started as whether complex verbal phrases, in which the PLV still instantiates the literal meaning, are FVGs or not and there is a tendency not to count complex verbal phrases with a literal meaning to the proper FVGs (see the discussion in Hermann, 2020). We cannot deal with this issue in this paper but we will focus on examples of metaphorical use, i.e., with a semantic incompatibility between the complex verbal phrase and the theme argument.

Coming back to the constructionist description, we can observe that the constituents of the prototypical examples of complex verbal phrases with a PLV and a prepositional phrase (criteria c and d in Kamber, 2006, 2008) are more or less fixed. The noun phrase cannot be further determined by an adjective or a genitive complement and the selection of the preposition introducing the noun phrase is not free as can be seen in the tables hereunder. Starting from about 350 examples of FVGs randomly collected in the core corpora of the DWDS, respectively with the PLV *stellen* ('to put upright') and *setzen* ('to set') with an additional prepositional phrase, we listed the first 250 relevant tokens for each verb (see the tables hereunder) with the aim to analyze the semantics of the prepositions which preferably appear with a specific PLV as well as the nominal phrases associated with these PLVs. Our expectation is that the selection of the preposition is not arbitrary, but that it reflects underlying conceptualizations and further that it sustains the semantics of the verb. Let us first look at the examples with *stellen*:

Table 1. List of prepositional phrases with *stellen*

Prepositional phrase	Number of hits	Frequency of nominal phrase	Frequency of preposition
1 <i>außer Streit</i>	1	0.40%	<i>außer</i> : 0.40%
2 <i>in Abrede</i>	2	0.80%	<i>in</i> : 39.20%
3 <i>in Aussicht</i>	13	5.20%	
4 <i>in Betrieb</i>	1	0.40%	
5 <i>in Dienst</i>	5	2.00%	
6 <i>in Frage</i>	61	24.40%	
7 <i>in den Mittelpunkt</i>	1	0.40%	
8 <i>in Offenheit</i>	1	0.40%	
9 <i>in Rechnung</i>	14	5.60%	
10 <i>unter Anklage</i>	2	0.80%	<i>unter</i> : 11.20%
11 <i>unter Beweis</i>	12	4.80%	
12 <i>unter Diktat</i>	1	0.40%	
13 <i>unter Hausarrest</i>	3	1.20%	
14 <i>unter Kontrolle</i>	1	0.40%	
15 <i>unter Polizeischutz</i>	1	0.40%	
16 <i>unter Strafe</i>	6	2.40%	
17 <i>unter Verwaltung</i>	2	0.80%	
18 <i>vor Gericht</i>	4	1.60%	<i>vor</i> : 1.60%
19 <i>zur Aufgabe</i>	1	0.40%	<i>zu</i> : 47.60%
20 <i>zur Diskussion</i>	6	2.40%	
21 <i>zur Disposition</i>	1	0.40%	
22 <i>zur Rede</i>	2	0.80%	
23 <i>zur Schau</i>	7	2.80%	
24 <i>zur Seite</i>	1	0.40%	
25 <i>zur Verfügung</i>	100	40.00%	
26 <i>zur Wahl</i>	1	0.40%	
Total	250	100.00%	100.00%

The most frequent prepositions introducing the nominal phrase in the FVG with *stellen* are *in* (39.2%), *unter* ‘under’ (11.2%), *zu* ‘to’ (47.6%). The preposition *zu* ‘to’ expresses a directional meaning with a telic focus (see also Radden, 1981, p.153). *Unter* ‘under’ is used for the expression of hierarchical relations, also often associated to control, as illustrated with *unter Verwaltung stellen* ‘to place under administration/governing authority’, *unter Diktat stellen* ‘to place under dictat’, *unter*

Kontrolle stellen ‘to place under control’. One of the semantic uses of the preposition *in* is the idea of inclusion (Radden, 1981, p.151) which we can recognize in FVGs like *in Rechnung stellen* ‘to bring to account’; by contrast, *in den Vordergrund stellen* ‘to put into the foreground’ exemplifies the “state sense” which is itself part of the “location cluster” in Tyler and Evans’ (2003, pp.186–189) terminology. *In Aussicht stellen* ‘to hold out the prospect of something’ instantiates the “perceptual acceptability sense with a vantage point” (Tyler & Evans, 2003, p.192). The complex verbal phrases *in Betrieb stellen* ‘to bring into operation’ or *in Dienst stellen* ‘to bring into service’ exemplify another possible sense of the location sense, namely the “activity sense” (Tyler & Evans, 2003, p.189). But it is surprising that these two examples of complex verbal phrases contain the PLV *stellen* and not *setzen* as this latter verb is used to express an inchoative meaning which *stellen* does not realize. Let us now compare the list of examples with *setzen*.

Table 2. List of prepositional phrases with *setzen*

Prepositional phrase		Number of hits	Frequency of nominal phrase	Frequency of preposition
1	<i>auf Aktion</i>	1	0.40%	<i>auf</i> : 6.40%
2	<i>auf Sparflamme</i>	1	0.40%	
3	<i>aufs Spiel</i>	10	4.00%	
4	<i>auf die Tagesordnung</i>	4	1.60%	
5	<i>außer Betrieb</i>	1	0.40%	<i>außer</i> : 14.40%
6	<i>außer Gefecht</i>	1	0.40%	
7	<i>außer Geltung</i>	1	0.40%	
8	<i>außer Kraft</i>	31	12.40%	
9	<i>außer Verfolgung</i>	2	0.80%	<i>in</i> : 58.80%
10	<i>in Analogie</i>	1	0.40%	
11	<i>in Betrieb</i>	2	0.80%	
12	<i>in Bewegung</i>	16	6.40%	
13	<i>in Beziehung</i>	13	5.20%	
14	<i>ins Bild</i>	3	1.20%	
15	<i>in Brand</i>	9	3.60%	
16	<i>in Flammen</i>	2	0.80%	
17	<i>in Freiheit</i>	2	0.80%	
18	<i>in Funktion</i>	1	0.40%	
19	<i>in Gang</i>	27	10.80%	
20	<i>in Geltung</i>	1	0.40%	

Table 2. (continued)

Prepositional phrase		Number of hits	Frequency of nominal phrase	Frequency of preposition
21	<i>ins Gleichgewicht</i>	1	0.40%	
22	<i>in Kenntnis</i>	11	4.40%	
23	<i>in Korrespondenz</i>	1	0.40%	
24	<i>in Kraft</i>	21	8.40%	
25	<i>in Marsch</i>	4	1.60%	
26	<i>in Musik</i>	1	0.40%	
27	<i>in Nahrung</i>	1	0.40%	
28	<i>in Szene</i>	9	3.60%	
29	<i>in Töne</i>	1	0.40%	
30	<i>in Umlauf</i>	2	0.80%	
31	<i>in Ungunst</i>	1	0.40%	
32	<i>ins Unrecht</i>	1	0.40%	
33	<i>in Verbindung</i>	6	2.40%	
34	<i>ins Verhältnis</i>	5	2.00%	
35	<i>ins Werk</i>	5	2.00%	
36	<i>unter Druck</i>	19	7.60%	<i>unter</i> : 9.20%
37	<i>unter Stress</i>	1	0.40%	
38	<i>unter Wasser</i>	3	1.20%	
39	<i>zur Aufgabe</i>	1	0.40%	<i>zu</i> : 11.20%
40	<i>zum Schutz</i>	1	0.40%	
41	<i>zur Wehr</i>	12	4.80%	
42	<i>zum Ziel</i>	14	5.60%	
Total		250	100.00%	100.00%

A first observation is that we have a greater variation in the choice of the nominal phrase with *setzen* (42 types) as against *stellen* (26 types). The verb *setzen* shows a preference for nominal phrases introduced by the preposition *in* (58.80%) which does not surprise if we think of the CONTAINER conceptualization. The opposite conceptualization to *in* is *außer* which we find in 14.40% of the examples. We found only one single example with this preposition in the list with *stellen*. As against complex verbal phrases with *stellen*, the preposition *zu* ('to') is not so frequent (only in 11.20% of the examples with *setzen*), which means that *setzen* is more rarely used to express a telic oblique element. The preposition *unter* is also found in only 9.20% of the examples. We can conclude that the idea of control with *stellen* presupposes the conceptualization of persons or objects which have a

base or rather a vertical orientation. By contrast, there were no examples with the PLV *stellen* combined with a nominal phrase introduced by *auf*. A small amount of examples with this preposition (6.40%) could be found with *setzen*.

Construction Grammar aims at schematicity as the result of generalizations. A quick look at the distribution of the prepositions and the PLVs reveals the following generalizations: in complex verbal phrases *stellen* is often combined with nominal phrases introduced by the telic preposition *zu* (47.60%), whereas *setzen* favors nominal phrases introduced by *in* (58.80%) for the expression of containment. The PLV *setzen* also shows a greater variety not only at the level of the nominal phrases but also in the selection of the preposition. The small-scale study demonstrates how important it is to consider the collocates of the PLVs for their description (compare also Rostila, 2011 & Zeschel, 2008). This is not limited to the prepositional collocate. A fine-grained investigation of the semantics of the nominal phrases combined with both PLVs also allows to recognize the image schemas which are conceptualized with the complex verbal phrases under study. This aspect is developed in Section 4.2.2. Let us now see if these insights can be helpful for learning and teaching issues.

3. Learning and teaching issues

Teachers of foreign languages will agree that the learning procedure is a complex enterprise and that simply providing learners with foreign constructional templates does not guarantee that they will be able to produce constructions and their instantiations in a communicative way.

Teaching does not automatically convert into learning, as many teachers erroneously believe. Therefore, the focus of the language teaching design must not be on the teaching, but on how the learning might happen. (Weideman, 2016, p. 130)

To be able to generalize, learners need to be confronted with much practice, i.e., with large amounts of instantiations (Holme, 2010). But seeing the limited learning context and time this seems to be difficult. As stressed by Herbst (2016), because of the smaller amount of input encountered by learners, “generalizations are arguably more difficult to make in L2 acquisition” (Gilquin & De Knop, 2016, p. 11). That is why strategies in order to foster the learning of foreign structures in spite of the low exposure are needed. For Gilquin and De Knop (2016, p. 11) this could involve: “repeated exposure to – and noticing of – various instantiations of a construction in different contexts, through the use of texts that “recycle new tokens of previously taught constructions” (Holme, 2010, p. 127).”

This is known as the “scaffolding” strategy (Klewitz, 2017; McKenzie, 1999). If we apply this strategy to the learning of PLVs, one can start with the concrete uses of PLVs, illustrating their use in the causative constructions to then progressively introduce the more abstract uses and finally the complex verbal phrases:

...starting from the use of a pathbreaking verb in a C[onstruction], learners can discover (or made to discover) how the pathbreaking verb alternates with other verbs, how the construction relates to other constructions that the learner is familiar with (in the target language or in another language, including the mother tongue) – e.g. constructions that are embedded within the construction or represent a semantic extension of it – and how the productivity of constructions can be exploited for creative purposes. (Gilquin & De Knop, 2016, p.7)

One of the major difficulties is that constructions in the native language often function as “obstacles” to the learning of L2 – just as different categorizations can do (see Boers et al., 2010, p.5). That is why Della Putta (2016) suggests some strategies to “unlearn” L1-constructions in order to discourage negative transfer phenomena. He distinguishes between (1) transcodification activities (from images to language and vice versa), which aim at explaining the embodied nature of some constructions and making them “cognitively accessible to learners” (Della Putta, 2016, p.258); (2) interactive strategies should help students notice the ungrammaticality of some constructions; and finally, (3) input-manipulation activities should be organized with the aim to give learners the positive evidence of what should be used in a specific language (Della Putta, 2016, p.258).

With the transcodification activities, Della Putta already refers to the “embodied nature” of some constructions (Della Putta, 2016, p.258). Inspired by previous research about embodiment, this paper wants to propose a complementary approach which starts from insights gained in cognitive linguistics about conceptual categories and their expressions as the result of embodied processes (Lakoff, 1987). As already claimed by Ellis and Cadierno (2009, p.111), constructions are the fundamental units of language acquisition and they reflect the most direct embodiment of learners’ communicative intentions. This insight can be exploited for a more efficient teaching methodology. Evidence for embodiment in language comes from neurolinguistics. Feldman and Narayanan (2004, p.389) claim that

[...] all understanding involves simulating or enacting the appropriate embodied experience. When asked to grasp, we enact it. When hearing or reading about grasping, we simulate grasping or watching someone grasp.

The conceptual understanding of an utterance implies the internal activation of embodied schemas (Bergen & Chang, 2005, p.2). For Lakoff and Johnson (1999, p.22), “human concepts are not just reflections of an external reality, but [...]”

they are crucially shaped by our bodies and brains, especially by our sensorimotor system". Rathunde (2009, p.71) even claims that it is "through our bodily perceptions, movements, emotions, and feelings that meaning becomes possible." Coming back to the examples discussed before, it becomes clear with the PSVs and PLVs that "we orient our bodies with respect to containers (rooms, beds, buildings,...)" (Lakoff & Johnson, 1999, p.36), but also to other spatial dimensions and perspectives. The difficulty when learning a foreign language results from the fact that learners have the L1-categorization in mind and have not made the 'embodied' experience with L2-concepts as children. Consequently, it makes sense to ground FLT in embodiment to make up for the missing experience between foreign concepts and L2-language.

4. Embodied construction practice

4.1 Studies on embodied learning

In a paper called *Constructionism: A new opportunity for elementary science education* (1986), Piaget's student Papert pointed to the possibility to foster the learning process with dynamic acting. Constructionism assumes that knowledge should be 'constructed' by learners and not only transmitted to them. This implies that learners should build or manipulate concrete artefacts while learning, so that the learning procedure becomes more successful. In spite of the fact that Papert's interest just focuses on computer skills with children (see his book 1980), this idea can inspire FLT and FLL. Constructionism in Papert's sense has its origin in developmental psychology and should not be confounded with the constructionist approach advocated by Construction Grammar which interests us more particularly.

Embodied cognition can take many forms, but the first studies on embodied learning focused on bodily engagement. For instance, Asher (1982) developed the "total physical response" and proposed interactive activities essentially based on motion in the class-room for a more effective language learning. Students are invited to react to verbal input in a physical way. Asher could achieve some good results as it allows reducing students' inhibitions and anxiety. The "smallAB learning" method developed by Birchfield (2015) can aid reading comprehension in young children through (imagined) activity. It is kinesthetic, i.e., based on the full-body interactivity in physical space, it is also collaborative, as it is face-to-face teaching and learning; and finally, it is multimodal, i.e., based on the seeing, hearing and touching the experience (<http://smallablearning.com/embodied-learning/>). For Rathunde (2009, p.73), it is important to "find ways to put the

body back into the mind and create more embodied educational environments". This can be achieved through the integration of nature into foreign language pedagogy. In recent years, many studies on embodied learning have established themselves in educational research. By way of illustration we can quote Johnson-Glenberg et al. (2014) and Skulmowski and Rey (2018).

But embodied cognition also shows in visualization with pictures or objects, as described in the study about the acquisition of German motion expressions by De Knop and Dirven (2008), in animations (Roche & Suñer, 2017) for explaining different morpho-syntactic cases or the alternation between active and passive sentences. Gesturing (MacArthur & Littlemore, 2008) and enactment (Gallagher & Lindgren, 2015) are further possibilities for embodied learning. The dancer and linguist Lapaire (2013) and Lapaire and Etcheto (2010) go one step further as they integrate the teaching and learning of English grammar in dancing movements. This has the advantage of emphasizing "a holistic process, including body-based feelings and perceptions" (Rathunde, 2009, p.77). At the linguistic level too embodied cognition reveals itself through metaphor and metonymy (see Johansson Falck (2017) and Johansson Falck & Gibbs (2012)). In the next section we zoom in onto some of the possibilities for the embodied learning of the causative constructions with PLVs.

4.2 Embodied construction practice

This section deals with the question of what embodied construction practice can look like. There are many possibilities to create exercises based on embodiment. To do so, we will look again at the illustrative fields discussed above and see how teachers can proceed very concretely.

4.2.1 Interactive exercises with bodily engagement

PLVs with their concrete meanings are ideal verbs for bodily performance. Constructions with the PLVs (and with the PSVs) can be performed when they express concrete posture or localization, e.g.,

- (29) *Die Kinder hängen Bilder an die Wand.*
Lit. 'The children hang pictures at (=on) the wall.'
- (30) *Unsere Lehrerin hat Blumen bekommen; was macht sie damit? Sie stellt sie in eine Vase mit Wasser.*
Lit. 'Our teacher has received flowers; what does she do with them? She puts them (upright) into a vase.'
- (31) *Der Student setzt die Brille auf die Nase.*
Lit. 'The student sets the glasses on the nose.'

The class-room is an ideal place to perform these examples. The teacher may also bring some objects which can be moved by the learners and with which learners can represent “scenarios or lifelike situations” (Di Pietro, 1987, p.3). For sentence (30) for instance, a vase could be provided. Even (2011, pp.72–75) explains how to “enact / perform grammar” and how through the process of scaffolding the use of two-way prepositions and their case-marking can be learned. She starts with an awareness-raising exercise in which the learners are sitting in a circle, passing a little fabric beetle to one another. The exercise consists in saying where the beetle is and where it goes to. In a next exercise the learners first receive the picture of a room with various furniture and objects which are all labelled with the proper word, e.g., the television, the desk, the chair, the pictures on the wall, the books, etc. Again, they have to say where the beetle is going to, i.e., to which piece of furniture, or where it is hidden. This allows the teacher to repeat the morpho-syntactic cases accusative or dative (compare Section 2.3 above). In the next step, two different arrow icons are used to distinguish between the dative (↓) and the accusative (↘) and to achieve a more formal presentation which can be generalized. This illustration of a class-room intervention shows how objects and pictures can be integrated for the visualization of some constructions. The internet is a treasure trove of visual material which can be used during the teaching lessons. It should not be very difficult to find some pictures illustrating Examples (29)–(31) for instance.

4.2.2 Metaphorical motivation for causative constructions

Embodiment is often grounded in metaphor and metonymy, more abstract concepts are conceptualized in terms of concrete experience. Section 2.2 has described the conceptualizations of both PLVs *setzen* and *stellen* and revealed that these verbs are also commonly used in German for the expression of more abstract senses. E.g., *setzen* is used for the conceptualization of writing a text or words on a surface as illustrated in the following example,

- (32) *Anträge, die diesen Voraussetzungen nicht entsprechen, dürfen nicht auf die Tagesordnung gesetzt werden.* (DWDS, o. A.: Geschäftsordnung des Deutschen Bundestages. In: Sartorius 1: Verfassungs- und Verwaltungsgesetze der Bundesrepublik Deutschland, München: Beck 1998)
 Lit. ‘Requests which do not meet these conditions may not be set (= put) on the agenda.’

Boers (2011, p.229) describes how conceptual metaphor can be concretely exploited in foreign language teaching: “[T]he students may be asked to think of reasons for the existence of the given conceptual metaphors (i.e., their grounding in physical experience)”. They may be asked to recognize some associations.

This kind of approach also fosters speaking and interactivity (See also De Knop & Perrez (2014) for more ideas).

But there is a further possibility to exploit metaphorical grounding. In their study of the English PSV *stand* – which corresponds to the German PSV *stehen* – Gibbs et al. (1994) describe the various semantic uses of this verb in relation to “patterns of bodily experience” better known as “image schemas” (1994, p.233). Such image schemas can help explain the selection of the PLV and the prepositional phrase, especially in complex verbal phrases. For *stellen* we can distinguish the following relevant image schemas:

- LOCATION: *die Blumen in die Vase/die Flaschen in den Kühlschrank stellen*
Lit. ‘to put (upright) the flowers into the vase/the bottles into the fridge’
- VERTICALITY: *die Teller in die Spülmaschine stellen*
Lit. ‘to put (upright) the plates into the dish-washer’
- CONTROL: *unter Polizeischutz/unter Verwaltung/unter Diktat/unter Kontrolle/unter Anklage stellen*
Lit. ‘to put (upright) under police protection/under administration/under dictate/under control/under accusation’
- EXPOSURE:⁵ *in den Vordergrund/zur Aussicht/zur Schau/zur Verfügung/zur Disposition stellen*
Lit. ‘to put (upright) in the foreground/to prospective/to exhibition/at disposal/for negotiation’.

The LOCATION and VERTICALITY image schemas apply to concrete thematic concepts as can be seen from the examples. Complex verbal phrases rather instantiate the CONTROL and EXPOSURE image schemas with the corresponding prepositions *unter* and *zu* (see Section 2.4).

The PLV *setzen* is also used in constructions which instantiate location, as illustrated by Example (32). But it frequently appears in constructions which realize the CONTAINER, CONTACT and ENABLEMENT image schemas:

- CONTAINER: *in Musik/in Töne setzen; Signale in Situationen setzen*
Lit. ‘in music/in sounds set; signals in situations set’
- CONTACT: *die Brille auf die Nase/das Messer an die Kehle setzen*
Lit. ‘the glasses on the nose/the knife at the throat set’
- ENABLEMENT: *in Betrieb/in Beziehung/in Brand/in Flammen setzen*
Lit. ‘in activity/in relation/in fire/in flames set’.

5. This term has been proposed by Hermann (2020).

The ENABLEMENT image schema with *setzen* corresponds to the inchoative aspect which is frequently expressed with this verb. The concrete image schemas can be presented to learners, especially to explain the motivation behind the use of the PLVs. They allow to distinguish between the different PLVs and to select the proper one. It has been shown in the scientific literature (see Boers & Lindstromberg, 2008, p.33 or Beréñdi, Csábi & Kövecses, 2008, p.81) that fixed expressions whose meaning can be explained with metaphors – and also by metonymy – are more transparent and easier to learn.

Cognitive linguists [...] have shown that the imagery behind an idiom can easily be resuscitated either by enhancing people's awareness of the underlying CMs [conceptual metaphors] or by tracing the idiom back to its original, literal context (e.g. Gibbs et al., 1994). (Boers & Lindstromberg, 2008, p.33)

5. Conclusions and perspectives

German is a language characterized by a salience of manner which shows e.g., in the obligation to use PSVs and PLVs for expressions of position, location or motion. The use of these verbs follows syntactic and semantic constraints as the small-scale study unveiled. The precise description of their use and meaning can only take place in the larger frame of constructions, and more specifically in the intransitive locative construction for PSVs and causative constructions for PLVs. This also allows to recognize the semantic link between the verb and the prepositional phrase which realizes the oblique element and further the motivation for the selection of the proper case-marking. Future studies should zoom in onto the semantics of the theme argument which certainly also plays a major role in the selection of the PSV or PLV and the preposition.

From a didactic perspective, it is useful to ally the constructionist description with the cognitive linguistics exploration of the conceptualizations realized by the PSVs and PLVs. Interesting findings emerged from the corpus-linguistic analysis of the PLVs which uncovered motivated semantic links between the PLVs and the prepositional phrase. The motivation between the verbs and the prepositional phrases becomes even more obvious with the reference to image schemas which realize the embodied experience. A teaching methodology based on embodiment – realized very concretely with performing, bodily activity, or alternatively with reference to metaphorical grounding – can be beneficial for the learning of the new structures. The small sample of constructions we have discussed constitutes a starting-point for an extension to further constructions and for exemplifying the differences between L1- and L2-constructions. Progressively, learners

“should be able to build networks of constructions that will help them store constructions more efficiently in their mental constructicon and retrieve the information more rapidly” (Gilquin & De Knop, 2016, p.7). Teachers play a major role in this process, as they should provide learners with “a stock of prefabricated units in order to improve their communication skills” (Gonzalez Rey, 2013, p.7), that is a list of basic relevant constructions in German which learners would need at several stages of proficiency. Providing such a list is a future challenge for linguists, teachers and manual designers.

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