"Conceptual tools for the description and the acquisition of the German posture verb "sitzen""

De Knop, Sabine

ABSTRACT

The study of German posture verbs has attracted the interest of many linguists, e.g. Berthele (2004 and 2006), Fagan (1991), Kutscher-Schultze-Berndt (2007) and Serra-Borneto (1996). It is surprising that most studies disregard the posture verb sitzen ‘to sit’. The present paper aims at looking at this neglected area of description. A corpus study of sitzen allows us to get a differentiated picture of the different uses of that verb and to show that sitzen is not restricted to the concrete sitting position but is also used to express more abstract senses, e.g. Er sitzt in der Falle, lit. ‘He sits in the trap’ (= ‘He has problems’), or Das Kleid sitzt nicht, lit. ‘The skirt does not sit’ (= ‘The skirt does not fit’). A further look at learner corpora of German essays written by non-natives indicates that foreign learners of German seem to have difficulties with the more abstract or metaphorical uses of the verb sitzen. Interestingly enough, most teaching manuals for...

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Conceptual tools for the description and acquisition of the German posture verb *sitzen*

SABINE DE KNOP

Abstract
The study of German posture verbs has attracted the interest of many linguists, e.g. Berthele (2004 and 2006), Fagan (1991), Kutscher-Schultze-Berndt (2007) and Serra-Borneto (1996). It is surprising that most studies disregard the posture verb *sitzen* ‘to sit’. The present paper aims at looking at this neglected area of description. A corpus study of *sitzen* allows us to get a differentiated picture of the different uses of that verb and to show that *sitzen* is not restricted to the concrete sitting position but is also used to express more abstract senses, e.g. Er sitzt in der Falle, lit. ‘He sits in the trap’ ( = ‘He has problems’), or Das Kleid sitzt nicht, lit.’The skirt does not sit’ ( = ‘The skirt does not fit’). Foreign language learners have difficulties with the more abstract or metaphorical uses of verbs (compare Littlemore 2011), this also pertains to the abstract uses of *sitzen*. Interestingly enough, most teaching manuals for German do not describe the semantic uses of *sitzen* either.

The study aims at making up for these deficits. With examples from the German corpora from the Digitales Wörterbuch der Deutschen Sprache (DWDS), it first describes the different uses of the verb *sitzen*. It then offers a brief critical overview of teaching manuals for German. Based on essays from learner corpora, e.g. Falko, and cloze tests by French students it further presents the difficulties encountered by foreign learners of German with the more abstract or metaphorical uses of *sitzen*.

In the framework of Cognitive Linguistics the study also proposes some ‘conceptual tools’ to facilitate the learning of the more abstract uses of the verb *sitzen*. These tools are semantic networks, visuals, and conceptual metaphors. Spatial distinctions such as those between container and contact are extended to more abstract areas of experience, especially in the context of situations describing abstract states. Here one of the main issues for the learner is to find out whether the abstract goal is conceptualized as a container, a contact or still another basic spatial relation. The efficiency of these conceptual tools is tested with a cloze test conducted with French-speaking students.

Keywords: posture verb; foreign language learning; conceptual tools; semantic network; conceptual metaphor; *’sitzen’*; French-speaking learners; German

1. Introduction
The study of expressions of space, position and more specifically of posture verbs constitutes a central topic for many linguists as attested by the special issue of *Linguistics* (2007) on the Typology and semantics of locative predicates: posturals, positionals and other beasts, edited by Ameka and Levinson (2007), the volume on The Linguistics of Sitting, Standing, and Lying edited by Newman in 2002 or various other papers on posture verbs (Newman 2009, Newman and Rice 2001 and 2004). German as a Germanic language has several posture verbs which have been examined in more detail in the works by Berthele (2004) and (2006), Fagan (1991), Kutscher and Schultze-Berndt (2007), or Serra-Borneto (1996) to name just a few. The more common posture verbs are *stehen* ‘to stand’, *liegen* ‘to lie’, and *sitzen* ‘to sit’ which express basic positions characteristic of human beings and animals:
The three postures play a significant role in the course of our ordinary daily routines and the verbs which denote these postures are common sources for further semantic extension. (Newman 2002b: 1)

Although the three basic posture verbs play a prominent role not only in the expression of concrete position or location, but also in more abstract senses, it is surprising to realize that the posture verb sitzen has hardly been described in detail in scientific literature (except for Fagan (1991), but here the description is limited to the more concrete senses). One possible explanation for this neglect could be that stehen and liegen are used for paired positions on opposite geometrical axes like the vertical and horizontal axes. This characterizes the studies by Fagan (1991) or Serra-Borneto (1996) in which both verbs are described in parallel.

Another explanation for neglecting sitzen lies in the fact that this verb is used for postures which are difficult to represent in concrete experiments, like elicitation tasks which use for instance the “Topological Relations Picture Series (TRPS)” and the “Picture Series for Positional Verbs (PSPV)” designed by the Max Planck Institute for Psycholinguistics in Nijmegen for the purpose of analysing concrete spatial figure-ground configurations (see the special issue by Ameka and Levinson (2007)). In the TRPS each picture shows two or more objects of which one or one set is identified as a figure and the other as the ground, e.g. a cup or a set of bottles (= figure) on a table (= ground). For each picture the participants are asked a question of the type “Where is X?”, X representing the figure. The TRPS stimuli were also used by Kutscher and Schultzze-Berndt (2007) for their description of ten German positional verbs with inanimate figures. The particular selection of the ten positional verbs resulted from the responses by native speakers of German who participated in the experiment. In Kutscher and Schultzze-Berndt’s list of positional verbs sitzen was not present which is justified by the following arguments: (i) they described positions with inanimate figures and sitzen is a verb which is mostly confined to expressions of the concrete sitting position of animals or human beings (2007: 993); (ii) The posture expressed by sitzen was obviously not represented by the stimuli as there were only few examples quoted by the participants; (iii) Kutscher and Schultzze-Berndt argue that sitzen is sometimes used with inanimate figures, but it is then restricted to a few idiomatic expressions (2007: 1025).

The lack of detailed description of the possible uses of sitzen is certainly understandable from a practical point of view, but is very unsatisfactory, not only from the point of view of exhaustiveness but also from the perspective of second language acquisition (SLA) or foreign language learning (FLL). Teachers of German know that foreign language learners hardly have any problems in acquiring the concrete uses of sitzen but have more difficulties with the more abstract or metaphorical senses, e.g. Er sitzt in der Falle ‘He sits in the trap’ or Das Kleid sitzt nicht, lit. ‘The dress does not sit’, meaning that the skirt does not fit. These abstract uses are not idiomatic in the sense that they are not fixed or unmotivated, and as we will see in the following section, they correspond to the regular meaning expressions of the verb sitzen.

The following study aims at making up for the deficits at the descriptive level and at the level of FLL. With examples from the German corpora from the Digitales Wörterbuch der Deutschen Sprache (DWDS) it will describe the different uses of the verb sitzen in Section 2 and will then offer a brief critical overview of teaching materials for German in Section 3. With essays from the Falko learner corpora and with the results of a cloze test it will present the difficulties encountered by foreign learners of German with the more abstract or metaphorical uses of sitzen in Section 4. Section 5 will further describe some ‘conceptual tools’ (Boers et al. 2010: 20; Joyce & Calhoun 1997) in the framework of Cognitive Linguistics to facilitate the learning of the more abstract uses of the verb sitzen. These tools are semantic networks, visuals, and conceptual metaphor theory. The efficiency of some of
these conceptual tools has been tested with a cloze test with German expressions of posture and location by French-speaking students (See Section 6).

## 2. Semantic uses of the posture verb *sitzen*

Typologically, German belongs to the group of Germanic languages with Dutch and English. In several studies dealing with Dutch, Lemmens (2002) or Lemmens and Perrez (2010) have shown that the use of posture verbs, e.g. *staan* ‘to stand’, *liggen* ‘to lie’, and *zitten* ‘to sit’, is compulsory in Dutch to designate where or how human or animal beings or objects are. German has similar patterns, it uses *stehen* ‘to stand’, *liegen* ‘to lie’ or alternatively *sitzen* ‘to sit’ in different contexts for the expression of posture or location. The different contexts of use have been described in great detail for *stehen* and *liegen* by Serra-Borneto (1996) and for numerous other posture verbs by Kutscher and Schultzze-Berndt (2007). As already explained in Section 1 the German verb *sitzen* has been neglected in many linguistic descriptions – except for the study on posture and motion verbs by Fagan (1991). Inspired by the studies for Dutch and by the contrastive study between Dutch and German by De Knop and Perrez (forthc.) and with examples from the DWDS, we will describe the possible semantic uses of *sitzen*.

Lemmens and Perrez (2010) distinguish for all 3 Dutch posture verbs *staan*, *liggen* and *zitten* three main semantic uses: postural, locational and metaphorical. German belonging to the same typological category as Dutch (compare Talmy 2000) this distinction can be applied to the German verb *sitzen*, as illustrated in the following Table 1:

<table>
<thead>
<tr>
<th>Uses</th>
<th>Meaning</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>postural</td>
<td>‘be in a sitting position’</td>
<td>(1) <em>Eine Frau sitzt an dem Tisch</em> ‘A woman sits at the table’</td>
</tr>
<tr>
<td>locational</td>
<td>containment (+ ‘affiliation’)</td>
<td>(2) <em>Er sitzt im Gefängnis</em> Lit. ‘He sits in prison’ = ‘He is in prison’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3) <em>Er sitzt im Beirat/Parlament</em> Lit. ‘He sits in the committee/parliament’ = ‘He is a member of parliament’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4) <em>Die Schraube sitzt schief</em> Lit. ‘The screw does not sit straight (in the wall)’</td>
</tr>
<tr>
<td>contact</td>
<td>(also ‘location of small animals’)</td>
<td>(5) <em>Die Brille sitzt auf der Nase</em> Lit. ‘The glasses sit on the nose’ = ‘The glasses are on the nose’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(6) <em>Eine Fliege sitzt auf dem Kuchen/an der Decke</em> Lit. ‘A fly sits on the cake/at the ceiling’</td>
</tr>
<tr>
<td>metaphorical</td>
<td>containment</td>
<td>(7) <em>Er sitzt in der Falle/Klemme</em> Lit. ‘He sits in the trap/clamp’ = ‘He has problems’</td>
</tr>
<tr>
<td>contact</td>
<td></td>
<td>(8) <em>Das Kleid sitzt nicht</em> Lit. ‘The dress does not sit’ = ‘The dress does not fit’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(9) <em>Der Schlag hat gesessen</em> Lit. ‘The punch has sat’ = ‘The punch hit home’</td>
</tr>
</tbody>
</table>

Table 1: Semantic uses of *sitzen*

In its postural meaning *sitzen* refers to the prototypical sitting position of a figure, either a human being or an animal. As Newman puts it (2002b: 2), from the point of view of force
dynamics “with sitting it is the upper torso which needs to be held vertical while the lower torso can be quite relaxed, or even paralyzed.”

By extension, the prototypical posture is used for the expression of concrete location, be it with human beings (example 2), animals (example 6) or even objects (example 4). In its locational use sitzen can express the idea of containment, e.g. in an example like (10) Peter sitzt zu Hause ‘Peter sits at home’, the house can be considered to be a container and Peter is in the middle of this container. The locational use does not express the physical posture evoked by sitzen, but corresponds to an answer to the question Where is X?; so, in German one can say that Peter sitzt in der Kirche (lit. ‘Peter is sitting in the church’) even if he is not really ‘sitting’ at the moment of speech, because there are no seats available for instance.

Typical for this locational use is the expression of a prisoner ‘sitting’ in prison (example 2) or of persons ‘sitting’ in (institutional) buildings like a cinema, theatre, school, e.g. (11) Er sitzt eine Klasse höher als ich (DWDS), lit. ‘He sits one class higher than I’ (at school). An extension of this use concerns the expression of an affiliation, meaning that someone is a member of an association or a specific group, e.g. at parliament, in a sport club, in a committee,... For example, (3) Er sitzt im Beirat/Parlament, ‘He sits in the committee/parliament’, means that he is a member of the committee or of parliament.

The idea of containment can apply not only to human or animal beings but also to objects located in a ground which is seen as a container as in the example of a screw ‘sitting’ in a ‘wall-container’, e.g. (4) Die Schraube sitzt schief. In German, the idea of containment is typical for the location in body-parts, e.g.

(12) Der Schmerz sitzt im Magen
Lit. ‘The pain sits in the stomach’
(13) Ein Krampf sitzt im Bein
Lit. ‘A cramp sits in the leg’
(14) Zähne sitzen locker im Mund
Lit. ‘Teeth sit loose in the mouth’
(15) Ein Splitter sitzt im Fuß
Lit. ‘A splinter sits in the foot’.

In its locational use sitzen can also express a ‘contact’, e.g. between glasses and the nose in example (5) Die Brille sitzt auf der Nase, lit. ‘The glasses sit on the nose’, or between the eyebrows and the face in (16) Die Augenbrauen sitzen niedrig über den Augen (DWDS), lit. ‘The eyebrows sit (= are) low above the eyes’. The same meaning characterizes the following examples:

(17) Die Haken sitzen zu hoch, so dass man sie nicht erreichen kann (DWDS)
Lit. ‘The hooks sit too high, so that one cannot reach them’
(18) Hoch oben an der Wand saß ein kleines Fenster (DWDS)
Lit. ‘High above at the wall sat a small window’
(19) ... auf dem Dache saßen drei kleine Türmchen (DWDS)
Lit. ‘On the roof sat three small towers’

The verb sitzen is also used to express the location of smaller animals like insects, even if they are not properly sitting, e.g. (6) Eine Fliege sitzt auf dem Kuchen/an der Decke, lit. ‘A fly sits on the cake/at the ceiling’. In German birds always ‘sit’ in trees, e.g. (20) Ein Rotkehlchen sitzt in dem großen Baum, ‘A robin sits in the big tree’, simply meaning that ‘there is’ a bird in the tree. Insects or smaller animals are on their legs or feet which is different from bigger animals, like mammals for instance, which can indeed sit and be in the prototypical sitting posture.

The ideas of container and contact can also be exploited to explain the metaphorical extensions of sitzen for more abstract figures. Garments are often perceived as being ‘in
contact' with the body, but additionally, when one says for instance that the trousers are 'sitting' well in (21) *Die Hose sitzt gut*, one means that they fit well (compare also example 8). In example (9) *Der Schlag hat gesessen*, lit. ‘The punch has sat’, it is a punch which is in contact with the body and thereby reaches its target.

Some spots or places can be interpreted as being containers, e.g. a trap in example (7) *Er sitzt in der Falle*, lit. ‘He is sitting in the trap’, meaning that he has problems. We will describe these metaphorical uses in detail in Section 5.2.

The description of the above examples unveils a wide range of differentiated, but frequently related semantic uses for sitzen which makes it worthwhile to have a closer look at this verb. It is surprising that this has not been done systematically in scientific literature yet. A systematic description of related senses for sitzen would be very useful for the learning of the use of this verb. As already said in Section 1, teachers of German know from experience that foreign language learners encounter difficulties with the semantic uses of German posture verbs. The difficulties are twofold: first, the learner has to realize that a posture verb must be used in specific German contexts which might differ from the contexts of the learner’s mother tongue. French for instance uses the very general verb être ‘to be’ for all sorts of posture or location. Compare also the above example of a bird sitting in a tree in (20) which would be translated into English with *there is*. Secondly, the learner has to select the correct posture verb dependent on the context: sitzen competes with other posture verbs like stehen ‘to stand’, liegen ‘to lie’, stecken ‘to be stuck’, hängen ‘to hang’, to quote the most common ones. For more details about the selection of other posture verbs see Kutscher and Schultze-Berndt (2007) or De Knop and Perrez (Forthc.). Let us now see how teaching materials for German deal with these issues.

3. Critical presentation of teaching materials for German

As our study has been conducted mainly with Belgian French-speaking groups of students, we primarily focussed on the teaching materials used in Belgium for teaching German to French-speaking learners. Two types of materials were examined: teaching manuals and grammar books. Let us look at the different materials in detail.

3.1. Teaching manuals

Four teaching manuals, which are most frequently used in secondary schools and adult language courses in Belgium, are quoted here:


Each manual quoted deals with posture verbs but in a different way and at different teaching levels (see a and b). In the elementary manual *Themen Neu 1* (a in the list) there is a small exercise in which the learner has to tell where Berlin’s heraldic animal, the bear, is standing or where it is sitting. The pictures all represent very concrete places like a bench, a monument, the Berlin wall,... In *Themen Neu 2*, which belongs to the same series as *Themen
Neu 1 (see a), posture verbs are not quoted and in Themen Neu 3 (b here above) sitzen is quoted in some sentences illustrating some pupils ‘sitting’ at school. The manual Lagune (manual c here above) has three volumes for the levels A1, A2 and B1 in the Common European Framework of Reference for Languages\(^3\) (http://www.coe.int/t/dg4/linguistic/Cadre1_en.asp). Only in Lagune 1 are there some exercises dealing with concrete positions expressed by posture verbs, e.g. *Der Fisch liegt unter dem Tisch* ‘The fish lies under the table’ (2005: 105). The last manual considered in the list, Deutsch mit Erfolg 2 (d), is a handbook for adults, it offers more explanations and has hardly any pictures. Still the examples are all very concrete, e.g. *Wo ist eigentlich der Wagen? Er steht vor dem Rathaus*, lit. ‘Actually, where is the car? It stands in front of the town hall’. In another exercise the learner has to combine a posture verb with one of the spatial prepositions. All in all, the different teaching manuals deal with the very concrete uses of posture verbs.

3.2. *Grammar books*

Let us now see how grammar books deal with the topic of posture verbs. We looked at two elementary or intermediate grammar books (hereunder e and f) and two comprehensive ones for more advanced or university students (g and h). The second category is characterized by a higher page number and hence a more detailed approach. Here is the list:


It is interesting to realize that none of these manuals pays attention to the ‘semantic’ uses of posture verbs. If posture verbs are quoted at all then in a morpho-syntactic frame: Helbig and Buscha (g) describe the irregular past participle forms of the posture verbs and the auxiliary to be used in the perfect forms. Bouillon (f) describes the morpho-syntactic case to be used after posture verbs which he claims to be the dative. This claim is much too general and simply not always true, as illustrated by the following example (22) *Das Wasser steht ihm bis über die Knie*, lit. ‘The water stands till over the knee’ = ‘The water is above his knees’ (Compare also Serra-Borneto 1997: 192). In this example the accusative is used in *die Knie*. For more details about the use of the dative or the accusative see De Knop (Forthc.). It is not clear why teaching materials do not properly deal with the semantics of posture verbs, their use being compulsory in German and the problems related to their use being recurrent with foreign language learners as we will show in the following section.

4. **Difficulties in the use of sitzen by French-speaking learners**

The overall aim of language teaching is the learning of authentic proficiency in the foreign language, or as Boers et al. (2010: 7) put it, “near-native proficiency in L2”. As “language reflects general cognition” (Littlemore 2011: 13) each linguistic community will privilege a particular perspective which in terms of Cognitive Linguistics is referred to as ‘construal’. The major difficulty for foreign language learners is not simply to learn different words and structures but much more to “appropriate a second culture” (Lantolf 1999: 28). Danesi (2008: 233) speaks of “conceptual fluency” which he defines “as the ability to give appropriate
structural form to all the kinds of meanings, literal and non-literal that constitute the semantic system of the SL [second language]”. French speakers use the very general verb être ‘to be’ for all sorts of posture or location, whereas Germanic languages will privilege a whole range of various posture verbs. Because the “conceptual systems do not coincide in this area of discourse” (Danesi 2008: 233), French-speaking learners will encounter difficulties when it comes to use posture verbs in the right way. This is confirmed by studies by Lemmens and Perrez (2010) for the Germanic language Dutch. They distinguish three possible types of problems:

(i) Posture verbs are often underused by French-speaking learners although they are compulsory in expressions of motion or location because of the prominence of the manner dimension in Germanic languages (See Talmy (2000), Slobin (1996) and the study by De Knop and Gallez (2011) about the manner of motion as a privileged dimension of German expressions). This is not surprising if one considers the French conceptual system which is characterized by a tendency to use general posture and location verbs.

(ii) Posture verbs are sometimes overused, i.e. that they are used in contexts where a posture verb should not appear; this is called “posture verb panic” in Lemmens and Perrez’s (2010) terminology. Such cases are more rare.

(iii) Abstract or metaphorical uses of posture verbs are problematic; learners have to know the metaphorical contexts in which posture verbs are used.

These three types of problems that arise when learning Dutch also pertain to the Germanic language German. They are confirmed not only by our teaching experience but also by examples from learner corpora and a study conducted with French-speaking natives in Belgium which we will present below.

4.1. Use of sitzen in the Learner corpus Falko

In order to see the frequency in the use of sitzen by foreign learners of German and by native speakers we first checked the number of examples with sitzen in the learner corpus ‘Falko Essay L2 V2.2’ and in the native control corpus ‘Falko Essay L1 V2.2’ (http://korpling.german.hu-berlin.de/falko-suche/search.html). The learner corpus L2 contained in February 2012 132069 tokens in 248 texts, whereas the native corpus L1 had 70648 tokens in 95 texts. The advanced foreign students who had written the essays in German had various L1, among others Danish, Hungarian, Russian, Swedish, Spanish, or also English. Using the lemma sitzen we extracted all examples containing a possible form of the posture verb sitzen in the collection of essays. As a first observation we can say that there were very few examples, in the L2 corpus only 17 hits and in the control corpus 18 hits. This corresponds to 129 words per million for the examples in the L2 corpus against 255 in the L1-corpus. But more important than these quantitative observations – which in view of the small number of tokens and hits are not really representative – is the qualitative analysis of the examples. It comes to the fore that all the examples in the Falko L2 corpus express the concrete senses of sitzen, be it the postural or the locational senses, as exemplified in the following illustrations:

(23) Und wenn sich am Wochenende die Familie am Tisch sitzt, ist niemand erschöpft, und alle sind zufrieden \(\rightarrow\) postural use

(fk015_2006_07_L2v2.0)

‘And when during the week-end the family sits at the table, nobody is exhausted, and all are satisfied’

(24) Die Studenten sitzen oft zu Hause mit riesigen Büchern \(\rightarrow\) locational use

(cbs004_2006_09_L2v2.0)
‘Students often sit at home with giant books’

(25)  

...die im Knast mehr als 1 Jahr sitzen... → locational use

(1kb005_2007_09_L2v2.0)

‘...who sit more than one year in jail...’

The following table presents the example distribution in the L1- and L2-Falko-corpora according to the classification of the semantic uses described in section 2.

<table>
<thead>
<tr>
<th>Semantic Use</th>
<th>Number of examples in Falko Essay L1</th>
<th>Number of examples in Falko Essay L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postural use</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Locational use</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Metaphorical use</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Idiomatic use</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total number of hits</td>
<td>18</td>
<td>17</td>
</tr>
</tbody>
</table>

Table 2: Distribution of examples in L1- and L2 corpus

If we apply the Fisher’s exact test for count data to the results in L1 and L2 we can conclude that the two columns are not significantly different from each other (p-value = 0.562)⁴.

No example of the more abstract or metaphorical use could be found in the Falko collection of essays by foreign language learners but two such examples were in the L1 corpus. It is not sure whether L2-learners know the more abstract uses of the verb sitzen, but still the fact that there were no examples of abstract use may indicate that the expression of a metaphorical sense does not belong to the more active expression forms of this verb for L2 learners. In order to get a better baseline and following the suggestion of one of the reviewers a collection of 700 examples with sitzen from the DWDS core corpus was classified according to the various uses this verb can express. Table 3 hereunder summarizes the distribution of examples in connection with the semantic uses:

<table>
<thead>
<tr>
<th>700 examples from DWDS core corpus</th>
<th>Number of hits per semantic use</th>
<th>Frequency per hundred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postural use</td>
<td>56</td>
<td>8</td>
</tr>
<tr>
<td>Locational use</td>
<td>595</td>
<td>85</td>
</tr>
<tr>
<td>Metaphorical use</td>
<td>36</td>
<td>5</td>
</tr>
<tr>
<td>Idiomatic use</td>
<td>13</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 3: Distribution of examples in DWDS core corpus

Compared with the L2 data in Table 2 the distribution of the data by natives in the DWDS core corpus is not significantly different from the one in Table 3, as attested by a chi square test for given probabilities with simulated p-value (based on 20000 replicates): x-squared = 4.4806, df = NA, p-value = 0.1466⁵. Most examples represent the locational use of sitzen, the number of examples for the postural and metaphorical uses is rather low. It is clear that 5 % for the metaphorical sense is not a high score and henceforth it cannot be claimed that teaching more abstract uses of sitzen has to prevail in teaching methodology. But if the objective of foreign language teaching is authentic proficiency (see the introduction to Section 4) then it is a topic which cannot be ignored. According to Littlemore (2011: 48) “non-native speakers tend to avoid using metaphorical senses of words, preferring to stick to more literal uses”. She sees two possible explanations for this: (i) “Metaphorical meaning may not be salient to them [learners], or they have not learned to pay attention to them” and (ii) “the metaphorical meanings do exist in their passive vocabulary but have not yet crossed into their active vocabulary, possibly because they lack the confidence to use them correctly.”
(Littlemore 2011: 94) Because the number of texts in both the learner and the native Falko corpus and consequently the number of hits with the forms of the verb sitzen are rather low the results of the search are not reliable or sufficiently significant. That is why a cloze test was conducted with groups of French-speaking students and with German natives.

4.2. Cloze test
4.2.1. Participants and test design
The test group consisted of 30 French-speaking bachelor II students of German in translation and interpretation studies in Brussels, with a B1-B2 proficiency level in the reference frame of the Council of Europe⁶. In order to get a benchmark for the results the same cloze test was conducted with a control group with the same number of participants. It consisted of 30 German native students at the University of Jena. Most of them were students of Romance languages, but also of natural science or engineering.

The test consisted of 30 German sentences in which the verb had been deleted (see appendix i). Among the 30 sentences 12 sentences had been extracted from the German DWDS corpora as examples with the posture verb sitzen in its locational or metaphorical uses:

(26)  
Wiederhole die Vokabel immer wieder, bis sie ... ! (DWDS)  
= ‘Repeat the words again and again until they ...!’
(27)  
Wo ist meine Brille? Sie ... doch auf deiner Nase!  
‘Where are my glasses? But they ... on your nose!’
(27)  
Er ... in der Falle (piège)⁷.  
‘He ... in the trap’.

The other 18 sentences were fillers which could either contain another posture verb (e.g. Die Verantwortung (liegt) bei dir, ‘The responsibility (lies) with you’) or a completely different verb (e.g. Andrea (liebt/trifft/...) ihren Freund, ‘Andrea (loves/meets/... her friend’). The participants in both groups were simply asked to add the missing verb.

4.2.2. Results and discussion
The 18 filler sentences were discarded in the evaluation of the test. The test with natives highlights a preference for sitzen in 39 % of the 12 sentences from the DWDS corpus. This diverges from the 100 % use of sitzen in the DWDS examples, but it reflects a tendency in favour of sitzen. The general verb sein (‘to be’) is used as an alternative in 23 % of the 12 sentences. The results by the French-speaking Belgian students highlight another picture: sitzen was used in only 8 % of the 12 sentences, but amazingly only 11 % of the answers contained the general verb sein – which is even less than the result obtained by the native control group. So, the expectation that the foreign learners duplicate the favoured French lexicalization patterns with the general verb être/sein (‘to be’) was not confirmed. A possible explanation can be found in the difficulty level of the cloze test for the foreign learners as in 39 % of the 12 sentences the foreign students did not fill in any verb. Perhaps a larger context could have helped them decide upon the verb to be used. As compared with this result, only 4 % of the answers by the native control group contained no verb. Table 4 summarizes the results:

<table>
<thead>
<tr>
<th>Selection of verb in 12 sentences</th>
<th>German control group</th>
<th>French-speaking test group</th>
</tr>
</thead>
<tbody>
<tr>
<td>sitzen (‘to sit’)</td>
<td>39 %</td>
<td>8 %</td>
</tr>
<tr>
<td>mein (‘to be’)</td>
<td>23 %</td>
<td>11 %</td>
</tr>
</tbody>
</table>
Table 4: Results of the cloze test by native speakers and learners

To assess the significance of these results, three separate hierarchical logistic regression models were fitted to the data with the lme4 R package: the first regression model had as a dependent variable whether sitzen had been used, while the second had sein and the third ‘no answer’. The model included a by-participant random intercept and a by-item random intercept and slope (German vs French) to account for repeated measures on the same participants and items. The only predictor was group, with German students as the reference category. Results confirm that French-speaking learners were much less likely to use sitzen than German natives: the intercept for this first regression was -0.72 and the slope had a coefficient of -2.97, with p < 0.0001. Translated into probabilities, this corresponds to a probability of using sitzen of 33% for German natives versus 2% for French-speaking learners. This probability is lower than in Table 4 because it reflects the fact that only 5 learners used sitzen more than once and 22 never used sitzen.

The second regression also confirmed that French-speaking learners were less likely to use sein: the intercept was -1.79 and the slope -1.22, with p = 0.006. This corresponds to a 14% probability for German natives versus 5% for French learners.

Finally, learners were also more likely not to answer: the intercept was -5.35 and the slope 4.50, with p < 0.0001. This corresponds to a probability of ‘no answer’ of less than 1% for natives, versus 30% for learners.

A qualitative analysis of the answers in relation with the semantic uses further brings to the fore that in the instantiations of locational or metaphorical use, native speakers favoured the use of sitzen (in 63% of the answers), e.g.

(7)  Er … in der Falle (piège)  
Lit. ‘He … in the trap’
(21)  Die neue Hose ... gut  
Lit. ‘The new trousers ... well’
(26)  Wiederhole die Vokabel immer wieder, bis sie ... ! (DWDS)  
Lit. ‘Repeat the words again and again until they ...!’
(27)  Wo ist meine Brille? Sie … doch auf deiner Nase!  
Lit. ‘Where are my glasses? But they ... on your nose!’
(28)  Welche Politiker ... nach den Wahlen im Parlament? (DWDS)  
Lit. ‘Which politicians ... after the elections in the parliament?’

The French-speaking test group used sitzen in only 12% of the same instantiations. Interestingly, German natives hardly used sitzen in instantiations of the locational use with body-parts (only in 15%), e.g.

(29)  Der Schmerz ... in der Magengegend  
Lit. ‘The pain ... in the stomach area’
(30)  Jemandem ... das Messer an der Kehle (DWDS)  
Lit. ‘To someone ... the knife at the throat’
(31)  Seine buschigen Brauen sitzen niedrig über den Augen (DWDS)  
Lit. ‘His bushy eyebrows ... low above the eyes’
(32)  Musik ... ihm im Blut (DWDS)  
Lit. ‘Music ... him in the blood’
(33)  Ein Splitter ... in seinem Fuß  
Lit. ‘A splinter ... in his foot’
French-speaking learners used *sitzen* in only 5% of the same instantiations. The following table summarizes these results.

<table>
<thead>
<tr>
<th>Verb selection in 12 sentences</th>
<th>German control group</th>
<th>French-speaking test group</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>sitzen</em> in locational/metaphorical uses</td>
<td>63%</td>
<td>12%</td>
</tr>
<tr>
<td><em>sitzen</em> in locational use with body-parts</td>
<td>15%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Table 5: Use of *sitzen* in locational/metaphorical instantiations

All in all there is a clear tendency with natives to use the verb *sitzen* in locational or metaphorical expressions, which is clearly not the case with the learners. The difficulties for learners with the use of *sitzen* having been recognized, we now want to look for some solutions to facilitate the learning of these uses.

5. **Metaphor, semantic network and visuals as teaching strategies**

One of the strengths of Cognitive Linguistics is that it sees language as closely linked to cognition (Dirven and Ruiz de Mendoza Ibáñez 2010), it “approaches language as an integrated part of human cognition which operates in interaction with and on the basis of the same principles as other cognitive faculties” (Dirven 2004: 1). Because of this strong link it is quite natural that language should be explored in relation with the conceptualizations relevant in a particular speech community. Some difficulties encountered by foreign language learners are caused by the difference in conceptualization between the mother tongue and the foreign language: “L1 categories exert strong priming effects that are then transferred into the L2” (Littlemore 2011: 31). Boers et al. (2010: 5) even go as far as to claim that the entrenched categorization of the world in L1 can “create obstacles [my underlying] if the categorization that is lexicalized in L2 does not correspond to that in the learners’ L1”. For learners of German it is important to realize that the expression of location and posture is very differentiated in German and that this differentiation belongs to the habitual way of expressing things. So, a proper teaching methodology will have to start with awareness-raising exercises which will highlight the differences in conceptualization between the mother tongue and the foreign language. Or as Littlemore puts it: “Research into the acquisition by language learners of L2 categorization systems suggests that learners do indeed learn them better if they are in some way primed to notice them.” (Littlemore 2011: 38) After some awareness-raising exercises the different uses of *sitzen* can be described in a semantic network.

5.1. **Semantic network**

In Section 2 we have described three major uses of the posture verb *sitzen*. As we saw with the examples from the learner corpora, learners seem to know the concrete postural and locational uses better than the more abstract uses. The teacher can start with the more concrete uses and present them in detail. Then s/he can show the metaphorical extensions of the more concrete uses. The different uses can be introduced in the form of a semantic network representing meaning connections. This allows for recognition of significant links and the motivation between the different uses. This in turn enhances memorization (Boers 2011: 231). Figure 1 represents the semantic network for *sitzen*:
Because the postural use reflects the embodied physicality which characterizes the concrete positions of all mankind and because this use corresponds to the first uses in L1 acquisition – and by extension in L2 learning – we can postulate that the postural meaning of *sitzen* is the prototypical use. Its extension to the locational senses takes place through metonymy, e.g. in an example like (2) *Er sitzt im Gefängnis* ‘He sits in prison’, meaning ‘He is in prison’, the position a prisoner may have while in prison is expressed to refer to the state. The contact meaning with the locational use is a metaphorical extension of the postural meaning, e.g. in (5) *Die Brille sitzt auf der Nase* ‘The glasses sit on the nose’ (= ‘The glasses are on the nose’) the location of the glasses is associated with a sitting position. This metaphorical use is different from the metaphorical extensions for more abstract uses as the figure in e.g. (5) is still a concrete object. The more abstract uses of *sitzen* are extended through metaphor from the locational contact and container uses. Let us now look in more detail at the underlying metaphors.

5.2. **Conceptual Metaphor**
Since Lakoff and Johnson’s conceptual metaphor theory (1980), cognitive linguists generally accept that human experience, also the non-perceptual one, is grounded in real perceptual world and consequently that more abstract concepts are related to concrete physical experiences or entities by means of conceptual metaphor. Such metaphors are the result of mental processing, they can be realized at the linguistic level in various ways. Whereas a conceptual metaphor has the form [X IS Y], linguistic metaphors can explicitly express parts or all of the elements of an underlying conceptual metaphor. Boers (2011), Boers/Demecheleer (1998), Littlemore (2010) and (2011), and Özçaliskan (2003) see a
possibility to exploit conceptual metaphor in the teaching or learning of foreign languages. The idea behind this assumption is that conceptual metaphors are based on human experience which is supposed to be universal. Grady (1997) goes one step further claiming that so-called primary metaphors based on embodiment are even more basic than conceptual metaphors, they “result from a projection of basic bodily experiences onto abstract domains” (Littlemore 2011: 100). One and the same primary metaphor can underlie several conceptual metaphors. One primary metaphor that characterizes the German examples under study is: ABSTRACT STATES ARE POSITIONS / LOCATIONS (see also: Jäkel 1989; Özçaliskan 2003). This primary metaphor is realized in French among others in expressions like

(34)  **Nous sommes devant un problème**
Lit. ‘We are in front of a problem’ = ‘We are facing a problem’
(35)  **Nous avons laissé derrière nous tous les ennuis**
Lit. ‘We have left behind us all the trouble’
(36)  **Une menace plane au-dessus de nous**
Lit. ‘A threat glides over us’ = ‘Something is threatening us’.

In German we can find similar examples, e.g.

(34’)  **Wir stehen vor einem Problem**
Lit. ‘We stand in front of a problem’
(35’)  **Wir haben alle Schwierigkeiten hinter uns gelassen**
Lit. ‘We have left behind us all the trouble’
(36’)  **Eine Bedrohung schwebt über uns**
Lit. ‘A threat glides over us’ = ‘Something is threatening us’.

With such examples the teacher can already draw the learners’ attention to the fact that German uses a posture verb in example (34’) (in this case **stehen** ‘to stand’), whereas French uses the general verb **être** ‘to be’ in (34).

In order to explain the metaphorical extensions of the German examples with **sitzen** we will need two more conceptual metaphors, i.e. CATEGORIES ARE CONTAINERS and CATEGORIES ARE CONTACT. The former is a primary metaphor as well, as defined by Grady (1997), but it is realized differently in French; often it is the general verb **être** ‘to be’ which is used with a container preposition **dans/en** ‘in’, e.g. (37) **Il est dans la lune**, lit. ‘He is in the moon’, meaning that he is dreaming and often forgetful. Let us look at these conceptual metaphors in detail.

### 5.2.1. CATEGORIES ARE CONTACT

The idea of a contact can be metaphorical, in which case it is not simply the location of a particular figure which is being expressed, but additionally some extended meaning related to this figure. This metaphor is realized in the following examples:

(38)  **Die Polizei sitzt ihm auf den Fersen**
Lit. ‘The police sit to him on the heels’ = ‘The police are hunting him’
(39)  **Jemandem sitzt das Messer an der Kehle** (DWDS)
Lit. ‘To someone sits the knife at the throat’ = ‘Someone is being threatened’

In example (38) the contact of the police expressed by ‘the sitting on the heels’ (= Y) is used to express the location (= X) of the police vis-à-vis the other person (expressed by **ihm**, ‘him’) by metaphorical extension; but the static expression of ‘sitting on the heels’ is further used in a metonymical way to profile a dynamic activity, i.e. the chasing of the person. In example
(39) the knife ‘sitting at the throat’ (= Y) corresponds to a threatening gesture and by metonymical extension to a threat; it further profiles the trouble, the difficulties a person has (= X) by metaphorical extension. In these examples it is not simply the verb sitzen which expresses this metaphorical contact, but the combination of this verb with the prepositional complement ‘on the heels’ or ‘at the throat’. In some examples the same idea of contact is expressed by the verb sitzen alone, the element being in contact with the figure being implied, e.g.

(8)  
Das Kleid sitzt nicht,  
Lit. ‘The skirt does not sit’ = ‘The skirt does not fit’

(9)  
Der Schlag hat gesessen,  
Lit. ‘The punch sat’ = ‘The punch hit home’

The contact expressed in both examples profiles an effect by metonymical extension. Example (9) does not simply evoke the idea of the punch being in contact with the body, but by a further metonymical extension even more that it reached its target and had some effect on the figure. Also in example (8), it is not simply the idea of contact between the garment and a body-part which is being expressed, but additionally by metonymical extension the idea that the skirt does not fit properly.

The contact between the figure and another element – which is often a body-part – is expressed by the posture verb sitzen, but as a primary metaphor it leads to further metaphorical or metonymical extensions which then focus on the result or the effect of the location. An adequate teaching methodology will have to describe the metaphorical and metonymical extensions, starting with the conceptual metaphor CATEGORIES ARE CONTACT, and insist on the use of the posture verb sitzen in the instantiations of this conceptual metaphor.

5.2.2. CATEGORIES ARE CONTAINERS
The verb sitzen is also often used in expressions of metaphorical containment, e.g. in example (7)  
Ich sitze in der Falle/in der Klemme, lit. ‘I sit (= am) in the trap/in the clamp’, the trap or the clamp are seen as containers and in a way I am ‘sitting’ in the middle of this container. It is a metaphorical extension because this sitting is not concrete at all. But it is the whole expression consisting of sitzen together with the prepositional complement in der Falle which is used to express a problematic state. Here are some more examples from the DWDS corpus:

(40)  
Sie sitzt bis an den Hals in Schulden (DWDS)  
Lit. ‘She sits up to the neck in debts’  
= ‘She has many debts’

(41)  
Jemand sitzt bis über die Ohren im Dreck (DWDS)  
Lit. ‘Someone sits up to over the ears in dirt’  
= ‘Someone has many difficulties’.

The idea of a container is sustained by the meaning of the preposition in which introduces the prepositional group, as in the above examples or in the following one:

(42)  
In mir saß ... der Haß gegen den Schulbetrieb (DWDS: RENN Kindheit 253)  
Lit. ‘In me sat ... the hate against the school business’

In the metaphorical container expressions with sitzen we find many body-parts just like in the concrete locational expressions:
Die Verfolger saßen ihm im Nacken (DWDS)
Lit. ‘The pursuers sat to him in the neck’
= ‘The pursuers were close behind him’

Furcht sitzt ihnen im Genick (DWDS)
Lit. ‘Fear sits them in the neck’
= ‘They have great fear’

Die Musik sitzt ihm im Blut (DWDS)
Lit. ‘Music sits him in the blood’
= ‘He is very musical’

Der Streit sitzt ihm noch in den Knochen
Lit. ‘The quarrel sits him still in the bones’
= ‘He can still feel/is still suffering from the quarrel’

The difference between the concrete locational and the metaphorical examples depends on the type of figure used with sitzen. In its metaphorical extension, sitzen is often used with a non-concrete figure, e.g. fear (44), music (45), a quarrel (46). The same pertains to the following examples which are further characterized by a lack of prepositional complement, e.g.

Wiederhole die Vokabel immer wieder, bis sie sitzen! (DWDS)
Lit. ‘Repeat the words again and again until they sit!’
= ‘Repeat the words until you know them’

Denn wo der Glaube tausend Jahre gesessen hat, eben da sitzt jetzt der Zweifel (DWDS: BRECHT Galilei 9)
Lit. ‘For where belief has sat for thousand years, there sits now doubt’
= ‘And where there was belief for thousand years, there is now doubt’

In these cases the ground as the place where the figure is ‘sitting’ is not expressed but it can be inferred from our encyclopedic knowledge. In example (47) it is quite clear that the intended referent for the ground is the mind or one’s memory, in (48) it is probably people.

A proper teaching methodology will have to deal with the metaphor CATEGORIES ARE CONTAINERS, stressing that in combination with a prepositional complement introduced by in it is appropriate to use the verb sitzen to express the containment idea, even with abstract figures.

5.3. Visuals
Since Paivio’s (1979 and 2001) description of the ‘dual coding hypothesis’ it is generally acknowledged that foreign language learners achieve better learning results when they learn through different channels including, among others, visuals. This claim is based on the realization that “[w]ords can evoke imagery, and concrete events can evoke verbal representations” (Paivio 1979: 163). Paivio (1979) and Boers (2011) further describe the benefit of visuals for the retention of meaning: “Memory studies have shown that the availability of nonverbal images increases verbal recall” (Paivio 1979: 164). However Boers (2011: 244) emphasizes the necessity of choosing pictorials very well as they have to be “congruent with the meaning of the phrases they are intended to elucidate. In actual fact, this is not self-evident”. In a study about the abstract uses of motion expressions De Knop (forthcoming) describes the added value of pictures for the teaching and learning of abstract motion in German and proposes a series of drawings that can be used in teaching practise. The two conceptual metaphors CATEGORIES ARE CONTAINERS and CATEGORIES ARE CONTACT which underlie the metaphorical uses of the verb sitzen in this study can be easily represented with pictures. Simply drawing attention to the form of a container and commenting on what happens when persons and objects are in contact with each another can
help illustrate the underlying concepts. Alternatively, container-shaped objects like boxes can be brought into the class-room.

6. Test about the efficiency of the teaching strategies

The efficiency of the proposed conceptual tools for the description and the learning of sitzen was checked with another cloze test with a different group of French-speaking participants. Because of some of the limitations of this test (see hereunder) its results are still very tentative and can only show a direction for further testing and research in this field.

6.1. Participants and test design

The participants were 16 second bachelor year French-speaking students in translation and interpretation studies in Brussels. Their level corresponded to the B2-C1 proficiency level in the reference frame of the Council of Europe. A pre- and a posttest were conducted with the same group. The pretest consisted of 14 German sentences in which a verb should be filled in (see appendix ii). No further explanation was given. In most sentences it would be natural for German speakers to use the verb sitzen. This was counter-checked with a group of natives consisting of 20 participants who selected sitzen in 57% of the examples. Three sentences which would require another posture verb (stehen or liegen) were introduced as distractors (sentences 2, 6, 10). The posttest (see appendix iii) was designed in the same way and addressed to the same participants as the pretest. It contained 16 sentences with missing verbs, but in only 11 out of the 16 sentences it would be natural to use the verb sitzen. Examples 1, 3, 8, 10, and 15 were distracting sentences which would require another posture verb.

Before the posttest the participants received a teacher-centred lesson of 45 minutes which focussed on the use of posture verbs in general. To start with, students were told that German as compared with French uses a wide range of posture verbs to express location or motion whereas French uses the general verb être. The learners seemed to be aware of this difference. It was stressed that the use of posture verbs in German is the ‘natural way of saying things’. This was illustrated with a few prototypical examples in French which had to be translated into German by the students and then extended to more abstract uses with the following examples: Er steht vor einem Dilemma ‘He stands in front of a dilemma’, Der Unterschied liegt darin, dass … ‘The difference lies in this, that…’, Er sitzt im Parlament (auch wenn er dort nicht konkret sitzt) ‘He sits in parliament (even if he is not concretely sitting)’. Then the semantic network with the possible uses of sitzen as described here above (see Figure 1 in Section 5.1.) was introduced with some examples. In order to explain the more abstract uses of sitzen the three conceptual metaphors (see Section 5.2.) were presented with some examples and self-made drawings on the blackboard if possible (e.g. for container or for contact), thereby highlighting the linguistic realization of the underlying metaphors as follows:

- **ABSTRACT STATES ARE POSITIONS/LOCATIONS** (Lakoff/Johnson 1980)
  - *Un problème est devant nous*
  - *Nous avons laissé derrière nous tous les ennuis*
  - *Une menace plane au-dessus de nous*
  - *Wir stehen vor einem Problem*
  - *Wir haben alle Schwierigkeiten hinter uns gelassen*
  - *Eine Bedrohung schwebt über uns*

- **CATEGORIES ARE CONTACT**
  - *Jemandem sitzt das Messer an der Kehle*
The posttest was conducted immediately after the lesson; it contained other examples than the ones presented during the lesson so as to make sure that the learners would not simply replicate by rote learning what they had heard before.

6.2. Results and discussion

The results are not surprising. Since teaching materials are not dealing with the semantic uses of posture verbs in German and the obligation to use and differentiate them, this topic is mostly skipped by teachers of German. As a consequence, the results of the pretest reflect this gap: among all the pretest sentences in which it would be natural to use sitzen (i.e. 11 sentences X 16 participants = 176 answers) learners used this verb only once. From a qualitative point of view it is interesting to look at all possible answers. They are summarized in table 7:

<table>
<thead>
<tr>
<th>Expression used</th>
<th>Number of answers</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>sitzen</td>
<td>1</td>
<td>1 %</td>
</tr>
<tr>
<td>sein</td>
<td>14</td>
<td>8 %</td>
</tr>
<tr>
<td>another verb</td>
<td>97</td>
<td>55 %</td>
</tr>
<tr>
<td>es gibt</td>
<td>2</td>
<td>1 %</td>
</tr>
<tr>
<td>noun Sitz</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>no answer</td>
<td>62</td>
<td>35 %</td>
</tr>
</tbody>
</table>

Table 6: Results of the pretest

Many answers contained another verb like haben ‘to have’, lokalisiert sein ‘to be located’ (55%). In 8% of the answers the general verb sein was used which corresponds to the French lexicalization pattern.

A few weeks later a lesson was organized which presented the semantic uses of the German posture verb sitzen according to the methodology described above. Immediately after that lesson a posttest was organized. This time, out of the 176 possible answers (i.e. again 11 sentences X 16 participants) 98 contained the posture verb sitzen which corresponds to 56% of the results. Table 8 offers a more differentiated picture of the answers:

<table>
<thead>
<tr>
<th>Expression used</th>
<th>Number of answers</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>sitzen</td>
<td>98</td>
<td>56 %</td>
</tr>
<tr>
<td>sein</td>
<td>1</td>
<td>1 %</td>
</tr>
<tr>
<td>another verb</td>
<td>56</td>
<td>32 %</td>
</tr>
<tr>
<td>es gibt</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>noun Sitz</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>no answer</td>
<td>21</td>
<td>12 %</td>
</tr>
</tbody>
</table>

Table 7: Results of the posttest
Still very strongly represented is the use of another verb (32%). Positive tendencies resulting from the application of the teaching strategies to the posttest sentences can be recognized with a decline in the use of sein (only in 1 % of the cases) or in sentences with no answer (reduced to 12 %).

The progress in the use of sitzen between the pretest (1 %) and the posttest (56 %) has been statistically confirmed with the following test. The answers were dichotomized for the presence or absence of sitzen and a hierarchical logistic regression model was fitted to the data with the lme4 R package. The model included a by-learner random intercept and slope (pretest vs posttest) to account for repeated measures, as well as by-item random intercept since all learners completed the same cloze test. The only predictor was pretest vs posttest. Results confirm that learners were much more likely to use sitzen in the posttest: the intercept was -5.77 and the slope had a coefficient of 6.02, with p < 0.0001. Translated into probabilities, it corresponds to an increase from less than 1% to a 56% probability that sitzen will be used. This is consistent with the results found in Table 6 and 7. Consequently, a pedagogical focus on semantic networks, conceptual metaphors and visuals seems to lead to a certain success in the proper use of sitzen.

But two caveats have to be expressed in relation with the positive results:

(i) Since teaching manuals and, consequently, probably also teachers do not deal with the semantic uses of posture verbs the bad results of the pretest are not surprising. The simple fact that in the teaching unit before the posttest the teacher dealt with the topic can already have encouraged the participants to consciously ‘look for’ sentences in which sitzen should be used. But from a pedagogical point of view this seems to be acceptable as it is now generally acknowledged that “learning cannot take place without a certain degree of consciousness on the part of the learner” (Boers et al. 2010: 8). This is known as the ‘noticing hypothesis’ (Schmidt 1990 and 2001).

(ii) In order to confirm the positive results a long-term posttest should be conducted with the same participants. This seems to be a difficult enterprise because if the same participants are tested again with the same type of cloze test (even if no details are given about the test) they will be reminded of the topic which already biases the results.

So, the positive results have to be considered with some restrictions. But the objective of the test was first to show that there is a problem with the use – or better: with the non-use – of the German posture verb sitzen by French speakers. And secondly, that this problem can be minimized by a teaching methodology based on the strategies described above.

7. Conclusions

Research in the domain of German posture verbs has focussed on the general verbs stehen or liegen (Fagan 1991 or Serra-Borneto 1996) or on a wide range of more specific position verbs (Kutscher and Schultzze-Berndt 2007) leaving aside the posture verb sitzen. The present paper aimed at drawing attention to this neglected area by presenting a detailed description of the semantic uses of this verb and the pedagogical challenges linked to it. It was first observed that the uses of sitzen constitute a more complex network of related meanings which are not restricted to concrete expressions with animate figures or to fixed idiomatic expressions (compare Kutscher and Schultzze-Berndt’s claims (2007) described in the introduction).

From a pedagogical point of view, in spite of some restrictions, the present study brought a series of new insights to the fore:
1) French-speaking learners often duplicate the French patterns using a general verb like être or se trouver in sentences where German natives would rather use the posture verb sitzen.

2) The examples with sitzen found in the German learner corpus Falko were not numerous and therefore not very representative. However, the qualitative comparison of the data of this learner corpus with those of the native control corpus was useful to determine the meanings actively used by foreign language learners. Falko as learner corpus is a useful tool which needs further developing and growing.

3) A teaching methodology based on semantic networks, conceptual metaphors and/or visuals is promising in spite of some restrictions.

This chapter is an illustration for the possible interface between Cognitive Linguistics and (learner) corpora research. Meaning in Cognitive Linguistics is often characterized by polysemy and modelled in terms of a network structure centered around a prototype, with more peripheral members somewhat removed from the prototype. Such meaning extensions are arrived at through a number of semantic processes – e.g. metaphor and metonymy. Examples found in corpora can be organized, structured and described with these conceptual tools offered by Cognitive Linguistics. But on the other hand Cognitive Linguistics does not find any legitimation without reference to authentic examples from larger corpora which allow us to describe the frequency and the distribution of language phenomena, e.g. the use of sitzen, with more accuracy. Language phenomena and further language teaching and materials development cannot succeed without paying attention to the statistical properties of linguistic units.

Cognitive Linguistics and (learner) corpora also have a number of advantages for foreign language teaching methodology which we hope to have illustrated in this chapter. Since no teaching manual deals with the semantic uses of posture verbs in German and the obligation to use and differentiate them, this topic is mostly skipped by teachers of German who opt for ‘more relevant topics’ in their teaching methodology, e.g. irregular verb forms, case-marking, and so on. This topic selection is grounded in the communicative principle which focusses on the use of language for communicative purposes. And indeed if students use the general verb être ‘to be’ or another verb instead of the more natural posture verbs their communication with other speakers will not fail. However, at a certain proficiency level (B2-C1) one can expect learners to learn and internalize native speakers’ habitual or authentic way of speaking. We hope to have offered some avenues in order to achieve such a target.

**Appendix i: Cloze test with French-speaking Belgian students and with German natives**

Mettez un verbe dans chaque phrase:

<table>
<thead>
<tr>
<th>Sätze</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Der Schmerz … in der Magengegend.</td>
<td>… hat</td>
</tr>
<tr>
<td>2 Andrea … ihren Freund.</td>
<td>… hat</td>
</tr>
<tr>
<td>3 Der Punkt … auf der geraden Linie.</td>
<td>… liegt</td>
</tr>
<tr>
<td>4 Es … viele Menschen an der Bushaltestelle.</td>
<td>… sitzen</td>
</tr>
<tr>
<td>5 Jemandem … das Messer an der Kehle.</td>
<td>… greift</td>
</tr>
<tr>
<td>6 Wo … Du Apfel?</td>
<td>… hält</td>
</tr>
<tr>
<td>7 Wiederholte die Vokabel immer wieder, bis sie … !</td>
<td>kommt</td>
</tr>
<tr>
<td>8 Im Sommer … das Gras immer sehr schnell, ich muss den Rasen oft mähen.</td>
<td>… wachsen</td>
</tr>
<tr>
<td>9 Die neue Hose … gut.</td>
<td>… hängt</td>
</tr>
<tr>
<td>10 … du regelmäßig in die Kirche?</td>
<td>… besuche</td>
</tr>
<tr>
<td>11 Er … vor einem Dilemma.</td>
<td>… sitzt</td>
</tr>
<tr>
<td>12 Maria … gerne Bücher.</td>
<td>… liest</td>
</tr>
<tr>
<td>13 Auf dem Oktoberfest … die Menschen viel Bier.</td>
<td>… müssen</td>
</tr>
<tr>
<td>14 Seine buschigen Brauen … niedrig über den Augen.</td>
<td>… liegen</td>
</tr>
<tr>
<td>15 Am Wochenende … die Kinder immer sehr lange.</td>
<td>… spielen</td>
</tr>
</tbody>
</table>
Welche Politiker... nach den Wahlen im Parlament?
Zu Ostern... meine Eltern bunte Oster-Eier im Garten.
Es ist doch egal, ob mehr deutsche oder amerikanische Manager im Vorstand...
Die Verantwortung... bei dir
Musik... ihm im Blut
Konzerne wie Siemens und BMW... schon lange an der Isar, in den vergangenen Jahrzehnten sind weitere hinzugekommen, etwa Daimler-Benz Aerospace.
Er war so krank, dass er den ganzen Tag im Bett... hat.
Wo ist meine Brille? Sie... doch auf deiner Nase!
Der Unterschied zwischen diesen beiden Produkten... darin, dass ersteres teuer ist und letzteres praktischer.
Er... in der Falle (piège).
Es ist noch zu früh, die Rosen... noch nicht.
Ein Splitt... in seinem Fuß.
Peter... in einem schicken Haus am Rande der Großstadt.
... du gerne Briefe oder telefonierst Du lieber?
Mein Kollege... viele Überstunden.

Appendix ii: Pretest (before the teaching unit)

Rajoutez un verbe dans les phrases suivantes :

1. Der Schmerz... in der Magengegend
   sitzt
2. Der Punkt... auf der geraden Linie
   liegt
3. Jemanden... das Messer an der Kehle (DWDS)
   sitzt
4. Wiederhole die Vokabel immer wieder, bis sie...! (DWDS)
   sitzt
5. Die Hose... gut
   sitzt
6. Er... vor einem Dilemma
   steht
7. Seine buschigen Brauen... niedrig über den Augen (DWDS)
   sitzen
8. Die Männer... im Klub Kosova in Hamburg-Wilhelmsburg (DIE ZEIT 31.03.1999, 17)
   sitzen
9. Dabei kann es ihnen egal sein, ob mehr deutsche oder amerikanische Manager im Vorstand... (D.H. Lamparter, Zurück ans Band, DIE ZEIT 27.05.1999, S. 24)
   sitzen
10. Die Verantwortung... bei dir
    liegen
11. Der Nagel... in der Wand (DWDS)
    liegt
12. Konzerne wie Siemens und BMW... schon lange an der Isar, in den vergangenen Jahrzehnten sind weitere hinzugekommen, etwa Daimler-Benz Aerospace (Dasa)
    sitzen
13. Der Schlag hat... (atteint son but)
    gesessen
14. Er... in der Falle (piège)
    sitzen

Appendix iii: Posttest (after the teaching unit)

Rajoutez un verbe dans les phrases suivantes:

1. Sie... vor einem Problem
   stehen
2. Die Krawatte... schief
   sitzt
<table>
<thead>
<tr>
<th>3</th>
<th><em>Es … was in der Luft</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td><em>Die Musik … ihm im Blut</em> (DWDS)</td>
</tr>
<tr>
<td>5</td>
<td><em>Seine Brille … auf der Nase</em></td>
</tr>
<tr>
<td>6</td>
<td><em>Ihm … ein Krampf im Bein</em> (DWDS)</td>
</tr>
<tr>
<td>7</td>
<td>*Was für ein Kleid hast du gekauft! <em>Es … nicht!</em></td>
</tr>
<tr>
<td>8</td>
<td><em>Der Unterschied … darin, dass eine Tasse gelb ist und die andere rot</em></td>
</tr>
<tr>
<td>9</td>
<td><em>In der globalisierten Reiseindustrie … die Konkurrenten Österreichs längst nicht mehr nur in der Schweiz oder in Südtirol.</em> (DWDS)</td>
</tr>
<tr>
<td>10</td>
<td><em>Die Teller … in der Spülmaschine</em></td>
</tr>
<tr>
<td>11</td>
<td><em>Das Kabel … fest in der Wand</em></td>
</tr>
<tr>
<td>12</td>
<td><em>Die Unternehmer … im Gemeinderat, im Vorstand des örtlichen Sportvereins oder engagieren sich in lokalen Kulturprojekten</em></td>
</tr>
<tr>
<td>13</td>
<td><em>Der Schlag auf die Wange …</em></td>
</tr>
<tr>
<td>14</td>
<td><em>Die Zähne … locker im Mund</em></td>
</tr>
<tr>
<td>15</td>
<td><em>Der Fernsehturm … im Scheinwerferlicht (dans la lumière des phares)</em></td>
</tr>
<tr>
<td>16</td>
<td><em>Der Hut … nicht gerade auf seinem Kopf</em></td>
</tr>
</tbody>
</table>

**Notes**

* I would like to thank the anonymous reviewers for their numerous constructive suggestions and Stefan Gries, the editor of the CLLT journal, for his insightful comments on an earlier version of this paper. I am also indebted to Klaus-Uwe Panther for his support in the interpretation of some of the metaphorical and metonymical examples with *sitzen* and to Damien Littré for his help with some of the statistical tests.

1. Sometimes these geometric axes hardly play a role for the description of the uses of *stehen* or *liegen*, e.g. in an example like *Die Sandalen stehen in der Ecke* `The sandals are (standing) in the corner`: sandals are not characterized by verticality as they are rather flat, but much more by the fact that they are on their base. For more details, see De Knop and Perrez (fc).

2. The idiomatic use was not considered in the description of possible semantic uses in section 2 because it is not relevant for our description and the teaching methodology we want to develop. Idiomaticity can be distinguished from metaphoricity by the fixedness of the constituents of the idiom, e.g. *zwischen den Stühlen sitzen*, lit. `to sit between the chairs`, meaning that someone cannot make a decision, is attracted by several possibilities.


4. I would like to thank Stefan Gries for making this point and for calculating this result.

5. Here again I would like thank Stefan Gries for the statistical calculation.

6. The test was conducted with this level because the different uses of *sitzen* are not relevant for beginner students.
7. Here a translation of the word Falle (‘piège’) was added for French-speaking students in case they would not know the meaning of that word.

8. I would like to thank Damien Littré for the statistical analysis of these results.

9. The number of fillers is by far too low, which biases the results. But as already said, this was a quick very tentative test.

10. Here again I would like to thank my colleague Damien Littré for the statistical analysis of the results of both tests.

References


Kutscher, Silvia & Eva Schultze-Berndt. 2007. Why a folder lies in the basket although it is not lying: The semantics and use of German positional verbs with inanimate figures. Linguistics 45(5-6), 983–1028.


Corpora

Digitales Wörterbuch der Deutschen Sprache (DWDS): http://www.dwds.de/
Falko, Ein fehlerannotiertes Lernerkorpus des Deutschen als Fremdsprache: http://korpling.german.hu-berlin.de/falko-suche/