Data-driven learning one's way through constructions

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Abstract

This paper focuses on a data-driven learning experiment which required learners of English as a foreign language to work with corpus concordances representing instances of the *make* causative construction, the *way* construction, and the *into* causative construction. Among other activities, the students had to complete worksheets which included questions about specific concordance lines, but also more general questions about the construction itself. Thanks to the answers provided on the worksheets, this paper assesses students' ability to generalize about constructions on the basis of multiple instances taken from a corpus. In particular, it considers whether students are able to identify the typical elements composing the construction, determine the meaning of the construction, or become aware of the creative power of constructions.

1 Introduction

Many linguistic frameworks have led to applications in the field of foreign language teaching, relying on their theoretical or methodological advances to make pedagogical suggestions. Corpus linguistics and Construction Grammar have both contributed to this applied linguistic approach. Corpus linguistics, with its focus on naturally-occurring language, has recommended giving learners access to materials better reflecting authentic language use, including actual corpus data (see, e.g., Sinclair 2004; Campoy et al. 2010). Construction Grammar (CxG) has shown how constructions, i.e., pairings of form and meaning, as well as networks of constructions can serve as a basis for more efficient language teaching (see, e.g., De Knop & Gilquin 2016; Boas 2022).

This study combines the pedagogical potential of corpus linguistics and Construction Grammar to propose a pedagogical experiment centering around the acquisition of constructions. It investigates how learners of English as a foreign language (EFL) can generalize about constructions on the basis of multiple instances taken from a corpus. The constructions dealt with are the *make* causative construction, the *way* construction, and the *into* causative construction.

The chapter starts with a section on data-driven learning, the corpus-based pedagogy used in this experiment, and on constructions as conceived of in CxG (Section 2). The pedagogical setting of the experiment is described in Section 3, before the main (qualitative) findings are presented in Section 4. A short conclusion ends the chapter (Section 5).

2 Data-driven learning and constructions

Data-driven learning (DDL) involves letting language learners use corpus materials to make their own discoveries about language (Gilquin & Granger 2022). By examining instances of a linguistic phenomenon in context, learners can detect patterns and make generalizations about the behavior of this linguistic phenomenon. Because learners are more active in the learning process, they tend to better remember what they have discovered. Experimental studies have shown DDL pedagogy to be generally superior to traditional teaching in terms of efficiency (Boulton & Cobb 2017). While many DDL activities described in the literature have been item-based, starting from an individual search word and requiring students to consider its linguistic environment, larger phrasal patterns have rarely been used as a starting point in DDL pedagogy.

Constructions in the CxG sense are claimed to have a meaning of their own, which becomes particularly clear when a verb is used in a structure that is not licensed by the verb itself. Thus, in Goldberg's (1995: 9) famous example *He sneezed the napkin off the table*, the caused motion meaning is not part of the verb *sneeze*, an intransitive verb, but it is contributed by the construction itself, through the combination of a subject, a verb, a direct object, and an oblique complement. From a pedagogical point of view, this means that knowing the meaning of a construction can help learners interpret new instantiations of it but also use it in productive and creative ways.

In this study, DDL was applied to three constructions taking the form of phrasal patterns, namely the *make* causative construction (e.g. *They make me laugh*), the *way* construction (e.g. *He nattered his way from university*), and the *into* causative construction (e.g. *Nag your youngsters into tidying up!*).[1] The aim was to help EFL learners gain insights into these constructions by exposing them to authentic instances and asking them to come up with generalizations.

3 The pedagogical setting

The pedagogical experiment took place as part of a course in syntax and stylistics at a Belgian university. The course was meant for EFL students majoring in English. Most of them were native speakers of French with an upper-intermediate proficiency level in English. They formed a group of 40 to 60 regular students. The DDL sessions were spread over three weeks, with one session per week, centering around one of the three constructions and lasting about 45 minutes each. They were preceded by a pre-test and followed by several (short-term and long-term) post-tests as well as an evaluation by the students. The results of these tests and of the evaluation are described in Gilquin (2021). Here, the focus will be on the DDL sessions as such.

The DDL sessions relied on printed handouts consisting of concordances and worksheets. The concordances were presented as tables with 80 instances of the construction extracted from the British National Corpus (BNC), sometimes with slight adaptations to make the sentence shorter or easier to understand (the construction itself was not changed). To help the students identify the construction, the verb and its arguments were surrounded by angle brackets (see Appendix for a sample). The worksheets included several tasks related to the concordances, such as paraphrasing some instances, looking up a phrase in a dictionary, identifying certain elements in the sentences (e.g. the prepositional phrase in the *way* construction), and characterizing their nature (e.g. the animacy of the subject in the *make* causative construction). For each of the three constructions, the students were also asked to describe the main meaning emerging from the concordances as precisely as they could and to add any other discoveries

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[1] Unless otherwise indicated, the examples mentioned in this chapter were taken from the British National Corpus and included in the DDL materials of this study.

they had made during the activities. The students worked individually and autonomously. In total, 51 worksheets were completed for the *make* causative construction, 42 for the *way* construction, and 56 for the *into* causative construction (in that order). The next section takes a qualitative look at the answers provided by the students on the worksheets.

4 Qualitative findings

4.1 The *make* causative construction

In the active voice, the *make* causative construction consists of a form of the verb *make* followed by an object and a bare infinitive. While it can be considered a relatively versatile causative construction, found with different types of causers, causees or verbs and expressing different meanings (see Chatti 2011), corpus data reveal that it is mainly used with the meaning of 'causing something to happen to somebody independently of their will' (Gilquin 2010), as in *It made me love you more, Shelley*. The infinitive verb is mostly non-volitional, and the subject of *make* can be either animate or inanimate, in almost equal proportions (ibid.). Yet, people tend to associate the construction with a coercive meaning, corresponding to Lakoff's (1987: 54–55) prototype of direct manipulation and illustrated by *She might have made Nour come with her*, where a person forces another one to perform some action (Gilquin 2010: 160–162). It is also noteworthy that, despite the common belief that the *make* causative construction can be used with almost any verb in the infinitive slot, there are actually very strong phraseological preferences, with verbs such as *feel*, *laugh*, *look*, or *think* being among the top verbs associated with the construction (Gilquin 2006).

The students in the group were expected to be familiar with the *make* causative construction, which is normally introduced in EFL textbooks and has an equivalent in French, the *faire* causative construction, exemplified by *Il me fait rire* 'He makes me laugh' (see, e.g., Lamiroy 2013). However, it was assumed that most students would associate the *make* causative construction with coercion, as a result of prototypicality effects but also of the way it is usually presented in pedagogical materials (see Gilquin 2010: 268). This was confirmed by the pre-test, which showed that almost all the students were able to produce valid examples of the construction, but often with a coercive meaning. One of the aims of the worksheet was therefore to make the students aware of this possible discrepancy between their representations of the construction and its realizations in the corpus data. They had to determine what the most frequent infinitive was in the concordance (*feel*) and how this verb was used (mostly as a copula, e.g. *It made him feel sick*). They then had to look for other verbs used in the same way in the concordance (e.g. *look*, *sound*, *seem*, *appear*) and try to describe them semantically. They were also required to pay attention to the subject, considering in particular its animate or inanimate nature. The final questions involved describing the general meaning of the construction as precisely as possible and noting down any other findings made during the activities.

On the basis of these questions and through their careful examination of the concordance, many students were able to come up with interesting and accurate generalizations about the *make* causative construction. Several of them distinguished between the coercive and non-coercive meanings of the construction, as illustrated by the following comments: "Somebody or something can make sb or sth do sth voluntary or involuntary", "The action of making + NP + infinitive can be on purpose or not".[2] With respect to non-coercive meanings, students underlined that the infinitives were mostly "verbs of perception", "related to our senses and our emotions" or "a state of mind", rather than "real actions".

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[2] Comments from the worksheets are reproduced as is, language errors included.

They rightly pointed out that the presence of inanimate subjects leads to non-coercive causation: "When it [the structure] has inanimate entities, the object is rather confronted to feelings than actions", "The object can also go through an emotion/state of mind thanks to an inanimate subject". This suggests that the DDL approach helped students go beyond the coercive construct of the *make* causative construction and better identify its non-coercive uses.

Interestingly, some students did not seem to take notice of the non-coercive uses of the *make* causative construction despite the abundant evidence provided by the concordance and despite the questions on the worksheet. Thus, one student correctly answered the questions related to the subject and the infinitive in the construction, highlighting verbs like *feel*, *laugh*, *seem*, and *appear*, which by definition are non-volitional and cannot involve coercion. Yet, she wrote that "The 'make + NP + infinitive' construction, used in an active voice, means 'force (someone) to do something'". A student similarly referred to "a forced obligation to do sth". Another student's generalization seemed to combine her initial construct of the *make* causative construction with what she learned from the concordance, resulting in the following statement: "The subject can be an entity or a real person that force someone or something to do or be or feel something", where the use of the verb *force* is clearly incompatible with the idea of feeling something.

4.2 The *way* construction

The *way* construction is made up of a non-stative verb followed by a possessive determiner, the noun *way*, and a prepositional phrase. It entails that "the subject referent moves along the path designated by the prepositional phrase" (Goldberg 1996: 30). While the construction refers to a movement, the verb is typically not a motion verb, since its role is essentially to describe the way in which the movement was produced. In its most prototypical sense, the construction encodes "the creation of a path due to the existence of obstacles" (Luzondo Oyón 2013: 358), which explains the idea of difficulty that is often associated with the construction and can also be related to the "privileged status" of the verb *make*, meaning 'create', in the construction (Goldberg 1996: 38). The range of verbs that can be found in the construction is wide and the construction is said to be used productively (Israel 1996), although some semantic and pragmatic restrictions have to be taken into account (see Goldberg 1996; Luzondo Oyón 2013).

The *way* construction has received a great deal of attention in the CxG literature, but it was not expected to be well known to the students participating in the experiment. For one thing, it is not typically introduced in EFL textbooks. For another, the construction does not have any direct equivalent in French that the students could recognize upon seeing instances of the English construction. The worksheet therefore aimed to familiarize the students with the *way* construction and, in particular, to highlight its great productivity. It started with the paraphrasing of the first two sentences in the concordance: a construction combining two prepositional phrases (*I made my way through the forest and into the hidden passage*) and one including the verbal use of *worm* (*Annabel wormed her way into the circle around Kezia with a plate of smoked salmon sandwiches*). The students were asked to look up the phrase *worm one's way into* in a dictionary and compare its more literal and more metaphorical meanings ('reach a place' vs 'make somebody trust you'). They also had to underline the verbs in the different examples of the construction listed in the concordance and note down those that they found interesting, surprising, or funny. The worksheet ended with a question about the general meaning of the construction and one on the additional discoveries made by the students.

On the basis of these tasks and their own observations, the students came up with relevant descriptions of the *way* construction and its constituents. Many were able to discover that the verb expresses the means through which movement is produced: "The verb denotes the way the agent went through something", "The role of the verb is to be as precise as possible about what kind of move it is".

One of the students distinguished between the neutral verb *make* and more specific verbs: "'To make' is the most 'normal' verb that is used in this construction; the other verbs specify the way of making our way". The idea of creation implied by the verb *make* was also sometimes underlined, for example when paraphrasing the first sentence of the concordance (*I made my way through the forest and into the hidden passage*): "The person managed to create a path in the forest and join the hidden passage". The students often referred to the distinction between the literal and metaphorical uses of the construction, which must have been encouraged by the comparison between the two meanings of *worm one's way into*, e.g. "'Way' can be concrete or abstract", "This construction is used both with its literal meaning and its figurative meaning".

A surprisingly large number of students referred to the difficulty implied by the construction, e.g. "It can usually express the idea of achieving things despite difficulties", "The construction is about someone who manage to reach a goal, to get somewhere by a road with more or less obstacles". While this may have been due in part to some of the definitions of *worm one's way into* that the students found in dictionaries, it also seemed to be the result of their own examination of the concordance, since such comments appeared in some of the earlier tasks as well, including the paraphrasing of the first two sentences of the concordance, e.g. "I walked through the forest and went into a passage that we couldn't find easily" and "It wasn't simple to get through with plate of smoked salmon sandwiches". The reference to the idea of difficulty was also found in more indirect ways in students' answers, through the use of words such as "effort", "clever methods", "try to", "manage", "succeed", or "struggle".

The students regularly pointed to the high productivity of the construction, for instance when noting that "This construction allows the speaker to use a wide variety of verbs" or when expressing their surprise at this finding: "I didn't know there were so many constructions with 'way'". This was sometimes combined with the realization that the construction could be used in creative ways: "A lot of different verbs can be used and we can also make new ones". This point was also made with respect to the sentence *Like an overgrown Bisto kid I sniffed and aaahed my way to the source of the oaky-smokey smell*: "The example 'aaahed my way' shows that this construction can be used with comprehensible verbs which do not exist".

As was the case with the *make* causative construction, some comments seemed to go against the evidence provided by the concordance. Thus, one student claimed that "The preposition in the prepositional phrase of the construction can't vary much" and one even wrote that the construction is "almost always used with 'through'". While *through* was the most frequent preposition in the concordance, other prepositions were quite common, including *into* and *to*, and in total as many as fourteen different prepositions were illustrated.

4.3 The *into* causative construction

The *into* causative construction consists of a verb, an object, and the preposition *into* followed by a gerund. The main verb encodes the causing event, and more precisely "a *means* of causation" (Stefanowitsch 2014: 224; emphasis original), while the gerund encodes the resulting event. The construction suggests some kind of manipulation (Wierzbicka 1998: 125) as well as "some initial resistance (conscious or subconscious) to the result" which is "either overcome or circumvented by the causing event" (Stefanowitsch 2014: 230). Although Wierzbicka (1998: 125) claims that "the set of main verbs that can be used in this construction is quite limited", several corpus studies have revealed "the flexibility and the innovativeness" of the construction (Rudanko 2005: 181), showing that many (classes of) verbs can be used in the construction and that new verbs keep appearing (Rudanko 2005; Kim & Davies 2015). While the construction is often associated with negative connotations, neutral or positive overtones are possible, too (Rudanko 2005).

Like the *way* construction, the *into* causative construction does not have any direct equivalent in French and it is not typically included in EFL textbooks. The worksheet was therefore meant to help the students get to know this construction better. It started with some questions about the sentence *He's very good at talking people into doing things*: paraphrase, dictionary definition of *talk someone into doing something*, and search for the opposite construction, involving the preposition *out of*. The students were then required to underline the verbs in the other constructions, consulting a dictionary when they were unsure of their meanings and noting down those that they thought were interesting, surprising, or funny. To finish with, they had to describe the general meaning of the construction and add any other discoveries they had made.

Through the DDL activities, most students clearly identified the notion of causation implied by the *into* construction, as testified for instance by the fact that some of them used causative *make* to describe the meaning of the construction, e.g. "It's usually used to say that you made someone do something". One person emphasized the specificity of the causation conveyed by the *into* construction ("The construction means 'to make someone do something' but in a specific way"), as also suggested by Stefanowitsch (2014: 220), among others. Many students were able to determine that the first verb expressed the means by which causation was exerted: "The first verb is used to describe how the person is being persuaded to do an action. It shows the manner". The idea of persuasion/manipulation was mentioned by several of them, sometimes with the specification that this could happen without the causee being aware of this (cf. Wierzbicka 1998: 126): "There's also an idea of manipulation or temptation, the subject want somebody to do sth but it's not explicit for the other person". The resistance discussed by Stefanowitsch (2014: 230) was also found in some of the students' descriptions of the construction: "forcing the patient to do something he was not willing to do in the first place", "encouraging somebody to do something they hadn't planned".

As was the case with the *way* construction, several students underlined the productivity of the *into* causative construction, which was a matter of surprise to some of them: "It can be used with a very large range of different verbs", "There are way more verbs than I first thought". Some also admitted that many of the verbs were unknown to them (e.g. *bamboozle*, *hoodwink*, *bludgeon*) or at least that they did not realize they could be used as verbs (e.g. *cow*, *badger*). Interestingly, some descriptions of the meaning of the construction seemed to suggest that students were aware of the semantic contribution of the construction itself (as opposed to its individual constituents), as advocated by CxG: "No matter the verb used in the first place, the meaning of the sentence stays the same", "You can use a lot of different verbs having a different meaning but there's always this idea of making somebody doing something".

Some answers went against the evidence provided by the concordance. A few students rightly noticed that the *into* causative construction was often used with a negative connotation: "The meaning is often negative ('terrorized', 'rush', 'shame', …)". Yet, one of them claimed that "This construction is never used in a positive way", despite some instances proving otherwise, e.g. *It spurs people into making a commitment to each other*; *… individuals being encouraged and stimulated into being learners with the confidence to adapt positively*.

5 Conclusion

This DDL experiment revealed that, on the basis of corpus concordances and specific tasks related to these concordances, most EFL learners were able to identify constructions (in the form of phrasal patterns), to describe the nature of their constituents, and to come up with generalizations about the use of the constructions. Some learners also seemed to realize that a construction may have a meaning of its own and that it can accommodate many different verbs in productive and creative ways. This was

confirmed by the post-tests, in which learners produced creative constructions with verbs that were not included in the concordances (see Gilquin 2021).

Such an outcome should deflect one of the major criticisms against DDL, namely the fact that it is time-consuming (Gilquin & Granger 2022). Each of the DDL sessions in this study took about 45 minutes, but if it helps students learn a pattern that they can then understand and produce with various constituents, it is certainly worth the time. It remains to be seen how DDL activities such as those described in this chapter, or possibly adapted versions of them, would work with other types of constructions. The results obtained here, however, make this look promising.

More generally, this chapter has sought to bring together didactics and CxG, two fields which have been at the heart of Sabine De Knop's research and whose (individual and combined) applications she has highlighted in many of her publications. This chapter is a modest but sincere tribute to her important contribution.

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Appendix: Sample of the concordance for the *make* causative construction

1	Adam did not want at this point to speculate, it <made him feel> sick.
2	People in Liverpool <make me laugh> a lot.
3	<Makes you wonder>, doesn't it?
4	If another lot of talks can <make Iraq obey> the demands of the UN Security Council, then the chance to avoid further bloodshed should be gratefully seized.
5	You <make me sound> like a glaze.
6	I do appreciate the discount since CPRW is a charity and we try to <make our funds go> as far as possible.
7	He'd bought it in the Bazaar from an Indian trader who told him it would <make the muscle grow>.
8	They want to <make us think> we're always progressing, always going forward.
9	She might have <made Nour come> with her, because she refused to travel alone.
10	David used to go to him and Keith would rearrange the songs and <make them sound> good with his bass lines.
11	With one well-timed joke, Gazzer would be able to <make her fears look> ridiculous.
12	In the modern period the institutional separation preserves harmony amongst different types of capital and <makes the state appear> open to the interests of all citizens, including the working class.
13	The necks of the inverted bottles are dipped in a freezing brine which freezes the wine and sediment at the base of the cork sufficiently to <make it adhere> to the bottle's inner-surface.
14	Well, maybe some home truths about Alan Dysart, public servant and national hero, will <make you reckon> he deserves the marriage he's got.
15	Anthony introduced Comfort, who immediately started talking in fluent, fast Italian, which <made Julia feel> as inadequate and insular as she had ever done at Comfort's university parties.
16	It <made me love> you more, Shelley.
17	Don't <make me laugh>, Luke.
18	He let me go up and <made me sit> on the divan and he put on some music and turned out the lights and the moon came through the window.
19	Mr Klevan alleged that Gilfoyle, a former private in the Royal Army Medical Corps, took her life and thereafter <made it look> as if it were suicide.
20	Guilt <made her try to bury> it deep in her subconscious.