

Article

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Transfer of collostructions: the case of causative constructions

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Abstract: In an attempt to identify possible cases of collostructional transfer in the use of the causative construction [X *MAKE* Y V_{inf}] by French-speaking learners of English, two types of analyses are combined in this study. First, a contrastive collostructional analysis compares the verbs occurring in the [V_{inf}] slot of the English construction and its French equivalent, [X *FAIRE* V_{inf} Y]. Second, a contrastive interlanguage collostructional analysis compares the verbs used in the [V_{inf}] slot of [X *MAKE* Y V_{inf}] by native speakers of English, French-speaking learners of English and learners of English from other mother tongue backgrounds. The aim is to identify verbs that are more distinctive of [X *FAIRE* V_{inf} Y] than of [X *MAKE* Y V_{inf}] and that are also more likely to be used by French-speaking learners of English than by other populations, as these verbs could be potential cases of collostructional preferences transferred by learners from French to English. The results suggest that learners might transfer verbs expressing a change of state or location and some individual verbs like *discover* from the French to the English causative construction. Their dispreference for copular verbs (other than *be*) could also be the result of transfer effects.

Keywords: collostructional analysis; contrastive analysis; contrastive interlanguage analysis; language transfer; causative constructions

1 Introduction

Since its development twenty years ago by Stefan Gries and Anatol Stefanowitsch (cf. Gries and Stefanowitsch 2004a, 2004b; Stefanowitsch and Gries 2003), collostructional analysis has been applied to several constructions, languages and fields of linguistics. It has made it possible to measure the degree of association

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between constructions and words within these constructions, thus pointing to the interaction that can exist between them, but also contributing to a better description of the meaning of constructions.

This article applies collostructional analysis to the investigation of periphrastic causative constructions in English and French, and brings together the fields of contrastive linguistics and second language acquisition research, through the use of the Integrated Contrastive Model (Gilquin 2000/2001; Granger 1996). It seeks to uncover possible transfer effects in the use of English periphrastic causative constructions by French-speaking learners of English, focusing on the collostructional preferences in the non-finite verb slot. At the same time, the article is an illustration of how transfer can be investigated by combining what can be referred to as contrastive collostructional analysis and contrastive interlanguage collostructional analysis.

2 Periphrastic causative constructions and their collexemes

Periphrastic causative constructions use analytical means to express that an entity X influences an entity Y in such a way that Y performs some act. They are typically made up of a CAUSER (X), a CAUSEE (Y), a causative verb (e.g. *CAUSE*, *GET* or *MAKE* in English) and an EFFECT that takes the form of a non-finite verb complement. Examples for English and French are given in (1) and (2), which include the causative verbs *MAKE* and *FAIRE*. These two verbs will be the focus of this study because they are the main verbs used in periphrastic causative constructions and they are usually considered equivalent: *FAIRE* is the most obvious translational equivalent of *MAKE*, both in causative and other uses (although there are some differences between [X *MAKE* Y V_{inf}] and [X *FAIRE* V_{inf} Y], see Gilquin 2008).

- (1) [X *MAKE* Y V_{inf}]
John makes Mary laugh.
- (2) [X *FAIRE* V_{inf} Y]
Jean fait rire Marie.

While periphrastic causative constructions are characterized by many semantic, syntactic, lexical and stylistic features, one aspect that has been relatively under-researched and yet is crucial in describing these constructions is the phraseology of the non-finite verb. In Gilquin (2010: 137–139), a multinomial logistic regression was used to predict ten periphrastic causative constructions in English from forty

features extracted from corpus data (e.g. genre, animacy of the CAUSER, tense of the causative verb, transitivity of the EFFECT). The lemma of the EFFECT turned out to be the most discriminative feature when applying both backward and forward selection.

Collostructional analysis makes it possible to highlight, and also quantify, associations between causative constructions and verbs in the EFFECT slot. A multiple distinctive collexeme analysis of the ten English causative constructions referred to above thus pointed to verbs like *feel*, *laugh*, *look* and *think* as being very strongly attracted to the [X MAKE Y V_{inf}] construction as compared to the other nine constructions (Gilquin 2006) and showed that these ‘collexemes’ belonged to the more general category of non-volitional verbs.

Although such associations are expected to be part of native speakers’ constructicons (i.e. their mental repertoire of constructions), this is not necessarily the case for language learners, who may have difficulty approximating the native collostructional preferences of causative constructions (see Gilquin 2012). There are at least three possible reasons for this. First, learners’ lack of exposure to the target language may have prevented them from storing these preferred associations in their constructicons. Second, preferences in the non-finite verb slot of causative constructions are hardly ever described in pedagogical tools or even in the specialized literature (see Gilquin 2006, 2010), so that learners are unlikely to have heard about these. The third reason, which is the focus of this article, is that the collostructional preferences of causative constructions may differ in learners’ mother tongue and in the target language, thus potentially leading to cases of transfer from the mother tongue. Here, I investigate the possible role of transfer in French-speaking learners’ collexemes in the non-finite verb slot of the [X MAKE Y V_{inf}] causative construction. To do so, I use the Integrated Contrastive Model, which is outlined in the next section.

3 Transfer and the Integrated Contrastive Model

In second language acquisition research, transfer describes learners’ tendency to reproduce in the target language forms or patterns that come from another acquired language, including the mother tongue (see, e.g., Skehan 2008). When forms/patterns in the two languages differ from each other, transfer leads to the use of inappropriate forms/patterns in the target language and is then called negative transfer. Transfer can concern any aspect of language, including lexical and phraseological aspects. Using experimental data, Matthys (2015) demonstrates the existence of ‘collostructional transfer’ in the dative alternation among Dutch learners of English, meaning that the learners’ collostructional preferences in English are partly influenced by the collostructional preferences of the equivalent constructions in Dutch.

Transfer is at the core of the Integrated Contrastive Model (ICM; Gilquin 2000/2001; Granger 1996), a corpus-based model that involves the combination of contrastive analysis and contrastive interlanguage analysis to identify possible cases of transfer (see Figure 1). Applied to English causative constructions used by French-speaking learners of English, the model requires a *contrastive analysis* (CA) comparing causative constructions in the learners' mother tongue (French) and in the target language (English). The comparison can be drawn on the basis of translation corpora (texts in the source language [SL] and their translations into the other language [TL]) and/or comparable corpora (original texts [OL] in the two languages). The aim is to reveal any similarities and differences between the French and English causative constructions. The *contrastive interlanguage analysis* (CIA) compares the English causative constructions produced by French-speaking learners (IL, i.e. interlanguage) with those produced by English native speakers (NL, i.e. native language) and/or by learners from other mother tongue backgrounds (e.g. German- and Chinese-speaking learners; IL). The aim is to bring to light any uses of English causative constructions that are distinctive of French-speaking learners.

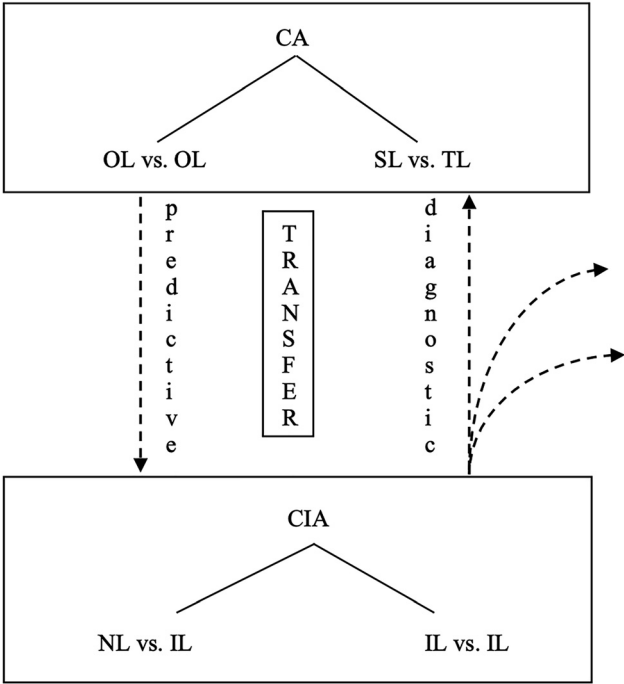


Figure 1: The Integrated Contrastive Model (taken from Gilquin 2000/2001: 100; based on Granger 1996: 47).

The assumption behind the ICM is that differences revealed by the CA could result in negative transfer and lead to non-native features that are distinctive of the learner population under study. Thus, French-speaking learners who transfer features of causative constructions from French to English in cases where French and English causative constructions behave differently will produce causative constructions exhibiting non-native features unlikely to be found among learner populations with different mother tongue backgrounds.

Depending on the starting point (CA or CIA), the ICM can be used in a predictive way, to predict learners' difficulties on the basis of the CA, or in a diagnostic way, to explain the origin of problems emerging from the CIA. As indicated by the diverging arrows in Figure 1, features of learner language are not all explained by differences between the mother tongue and the target language, in the same way as differences between the mother tongue and the target language do not necessarily lead to cases of transfer (they can help make predictions but these may not be borne out by the CIA).

In the next sections, the ICM is used to look for possible cases of collocational transfer, by comparing the collocational preferences of English and French causative constructions (contrastive collocational analysis; Section 4), those of English causative constructions produced by English native speakers and by learners from French and other mother tongue backgrounds (contrastive interlanguage collocational analysis; Section 5), and then bringing these two types of analyses together (Section 6).

4 Contrastive collocational analysis of *MAKE* and *FAIRE* causative constructions

4.1 Data and methodology

The CA is based on Gilquin (2015a), with two main differences. First, the collocational analyses were carried out by means of Coll.analysis 4.0 (Gries 2022) instead of Coll.analysis 3.2a (Gries 2007).¹ Second, the particles of phrasal verbs in English were taken into account in the distinctive collexeme analysis so as to make the results comparable to those of the CIA.

The English data come from a 5-million-word sample of the academic writing component of the British National Corpus (BNC), searched by means of the BNCweb

¹ See, e.g., Gries (2019) on some of the changes implemented in the computation of collocational analysis with the new script. Particularly relevant to the present study is that Coll.analysis 4.0 makes it possible to distinguish between frequency and association, which are represented along different axes in the plots produced by the script.

(Hoffmann et al. 2008). The French data come from the 5-million-word academic writing component of Scientext (Tutin and Grossmann 2014), searched by means of ScienQuest.

All the instances of [X *MAKE* Y V_{inf}] and [X *FAIRE* V_{inf} Y], respectively, were extracted semi-automatically from these corpora thanks to part-of-speech tagging (see Gilquin 2015a: 258–259). The queries involved looking for *MAKE* followed by an infinitive within one to seven words for English, and *FAIRE* immediately followed by an infinitive for French. The output was carefully examined to only keep actual instances of causative constructions. For each instance, the lemma of the infinitive verb was determined manually. A summary of the data can be found in Table 1.

In order to compare the collostructional preferences of [X *MAKE* Y V_{inf}] and [X *FAIRE* V_{inf} Y], two types of collostructional analysis were carried out, namely simple collexeme analysis and distinctive collexeme analysis.

Simple collexeme analysis focuses on one slot in a construction and highlights the words that are attracted to this slot. Here, two simple collexeme analyses were performed independently, one for the [V_{inf}] slot of [X *MAKE* Y V_{inf}] and another one for the [V_{inf}] slot of [X *FAIRE* V_{inf} Y]. The results of these two analyses were compared manually.

Distinctive collexeme analysis compares the attraction of words to alternating pairs of constructions. It is normally applied to two constructions in one and the same language. Here, by contrast, it was applied to the comparison of equivalent constructions in two languages, namely [X *MAKE* Y V_{inf}] in English and [X *FAIRE* V_{inf} Y] in French. Since such a comparison implies a common language, all the French verbs occurring in the [V_{inf}] slot were translated into English (see Gilquin 2015a: 260). The most direct counterpart in English was chosen. In the case of polysemous verbs, the context was checked to determine the best translation. It should be underlined, however, that a single translation was used for all the occurrences of the same verb, so as to avoid artificially splitting a French verb into several words through the process of translation, which would have had an impact on the degree of attraction of the verb. When a verb occurred with different meanings in [X *FAIRE* V_{inf} Y], the most frequent meaning was used as a basis to choose the English translation. Most of the time, however, all instances of a verb could be translated in the same way.

Table 1: Composition of the corpus samples used for the CA.^a

	Number of texts	Number of words	Number of causative constructions
English: BNC	147	5,003,007	258
French: Scientext	205	5,063,315	2,015

^aThe number of words of the Scientext corpus corresponds to the information that was provided in the ScienQuest interface at the time of searching. The number of words mentioned at the time of writing is larger, amounting to some 5.5 million words.

Both the simple collexeme analysis and the distinctive collexeme analysis rely on comparable corpora of original texts. Yet, in a way, they reproduce the two types of CA included in the ICM, since the simple collexeme analysis is based on independent sets of data for English and French while the distinctive collexeme analysis involves translation.

4.2 Main results

Below are the main results of the two independent simple collexeme analyses (Section 4.2.1) and those of the translation-based distinctive collexeme analysis (Section 4.2.2). As is usually the case with collocation analysis, the collexemes are presented around classes of semantically related verbs. The focus is on classes that are distinctive of one language or the other.

4.2.1 Simple collexeme analyses

Figures 2 and 3, like all similar figures in this article, are plots produced by Coll.analysis 4.0 (Gries 2022). They show the verbs found in the $[V_{\text{inf}}]$ slot of $[X \text{ MAKE } Y \text{ } V_{\text{inf}}]$ and $[X \text{ FAIRE } V_{\text{inf}} \text{ } Y]$, respectively (simple collexeme analyses).² The verbs are organized along the y-axis according to their association with the construction (log odds ratio, henceforth LOR) and along the x-axis according to their frequency in the construction (logged co-occurrence frequency). In the left part of the plot, above the horizontal dashed line, are verbs that are associated with the construction but are relatively rare (e.g. *reassume* and *shoulder* in Figure 2, with just one occurrence each). Those in the upper left-hand corner are particularly strongly associated with the construction (e.g. *boggle*, which occurs only in a causative construction in the data). In the right part of the plot, above the horizontal dashed line, are verbs that are both associated with the construction and quite frequent (e.g. *seem*, with 25 occurrences). The verbs below the horizontal dashed line are not associated with the construction, having a negative LOR. The full lists of results can be found in Appendices 1 and 2, respectively.

Comparing the collexemes of the English and French constructions reveals one common verb class, namely verbs of (mental and sensory) perception. Collexemes representing this verb class include *realize*, *think*, *notice*, *understand* and *reflect* in English; *prendre conscience* ('become aware'), *remarquer* ('notice'), *croire* ('believe'),

2 Some of the verbs mentioned in the analysis may not be visible in the plots because of the overlap of several collexemes. The Appendices, available online at <https://osf.io/h3jfg>, provide the full lists of collexemes, their frequencies and their log odds ratios for each collocation analysis.

- (5) *There are many aids to **make** plots **look** more professional.* (BNC-B16-795)

In French, several verbs of appearance are associated with [X FAIRE V_{inf} Y], including *ressortir* ('stand out'), *émerger* ('emerge'), *surgir* ('surge') and *naître* (lit. 'be born'), as exemplified in (6).

- (6) *Le croisement de ces deux tableaux **fait ressortir** des disparités en apparence plus grandes.* ('Cross-referencing these two tables reveals [lit. makes stand out] seemingly greater disparities.') (Scientext-617)

Interestingly, the verb *appear* and its French counterpart *apparaître*, which are both frequent and quite strongly associated with the causative construction, illustrate the difference between the class of copular verbs attracted to [X MAKE Y V_{inf}] and the class of verbs of appearance attracted to [X FAIRE V_{inf} Y]. While these verbs are obvious translations of each other, *appear* is mostly used as a copular verb, e.g. (7), whereas *apparaître* is mostly used to describe some entity becoming visible, e.g. (8).

- (7) *For the time being let us remove two other misunderstandings which **make** the above conclusion **appear** paradoxical.* (BNC-ANH-649)
- (8) *Nos recherches ont **fait apparaître** des différences dans les pratiques des enseignants avec les élèves dits en difficulté.* ('Our research has revealed [lit. made appear] differences in teachers' practices with so-called special needs students.') (Scientext-594)

Another verb class attracted to [X FAIRE V_{inf} Y] is that of verbs describing a change of state or location, with collexemes such as *pivoter* 'pivot', *chuter* 'fall', *basculer* 'topple', *progresser* 'progress', *évoluer* 'evolve' and *varier* 'vary', e.g. (9) and (10).

- (9) *La référence à la pratique magistrale de l'explication **fait basculer** la réflexion.* ('The reference to the magisterial practice of explanation shifts [lit. makes topple] the thinking.') (Scientext-617)
- (10) *Les enfants ont été enregistrés dans deux situations conçues pour **faire varier** le degré de formalité.* ('Children were recorded in two situations designed to make the degree of formality vary.') (Scientext-586)

4.2.2 Distinctive collexeme analysis

Figure 4 shows the results of the direct comparison between the [V_{inf}] slot of [X MAKE Y V_{inf}] and [X FAIRE V_{inf} Y] (translation-based distinctive collexeme analysis; see Appendix 3 for the full list of results). The verbs below the horizontal dashed line are more distinctive of [X MAKE Y V_{inf}], whereas those above the line are more

distinctive of $[X \text{ FAIRE } V_{\text{inf}} Y]$. Their degree of distinctiveness varies according to their position along the y-axis: the closer to the dashed line they are, the less distinctive; the more distant they are from the line, the more distinctive. The position of these collexemes along the x-axis indicates their (logged co-occurrence) frequency in the construction, from the least frequent on the left to the most frequent on the right.

The results of the distinctive collexeme analysis partly confirm those of the two independent simple collexeme analyses. Some of the verbs with a relatively low LOR belong to the class of (mental and sensory) perception verbs, shown above to be common to the two constructions, e.g. *understand*, *notice*, *realize*, *think* (and their French equivalents). The LOR of *appear* is rather low too (0.85), which is due to the collexeme *appear/apparaître* being shared by the two constructions and to the lack of semantic distinction being made in the distinctive collexeme analysis between the copular use (typical of English) and the appearance use (typical of French).

Copular verbs are more distinctive of $[X \text{ MAKE } Y V_{\text{inf}}]$ than of $[X \text{ FAIRE } V_{\text{inf}} Y]$, e.g. *feel*, *seem*, *look*, *sound*, but the difference is especially striking for *look*, which is actually the most strongly associated collexeme in English (LOR = 27.21). In the case of *feel*, the contrast is less marked (LOR = 2.47), but this hides differences in usage between English and French. While in English *feel* is mostly used as a copula, cf. (11), the French equivalent *sentir* tends to occur as a verb of perception used transitively, cf. (12).

- (11) *The family combines to **make** the daughter **feel** guilty and re-assume her task.*
(BNC-CE1-714)

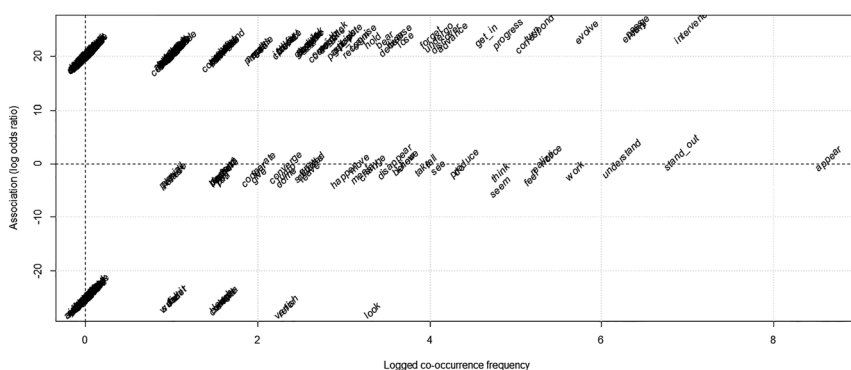


Figure 4: Log odds ratio and logged co-occurrence frequency of the distinctive collexemes of $[X \text{ MAKE } Y V_{\text{inf}}]$ (bottom part) and $[X \text{ FAIRE } V_{\text{inf}} Y]$ (top part), based on an academic writing sample of the BNC and the academic writing component of Scientext.

- (12) *Le Chêne montre déjà du sentiment et de la compassion, mais de cette compassion orgueilleuse par laquelle on **fait sentir** au malheureux les avantages qu'on a sur lui.* ('The Oak already shows feeling and compassion, but that kind of proud compassion by which one makes the unfortunate feel the advantages one has over him.') (Scientext-617)

Several verbs of appearance and change of state or location turn out to be more distinctive of [X *FAIRE* V_{inf} Y], such as the French equivalents of *vary*, *emerge*, *evolve* and *progress* (LOR of 24 or 25). The LOR for *stand out* is lower (2.08), but the collexeme is still distinctive of the French construction.

5 Contrastive interlanguage collocation analysis of *MAKE* causative constructions

5.1 Data and methodology

The CIA took the form of distinctive collexeme analyses. While, as noted above, distinctive collexeme analysis normally compares the association between words and alternating pairs of constructions, it was applied here to the comparison of one construction in two language varieties. The first comparison centred around the [V_{inf}] slot of [X *MAKE* Y V_{inf}] in native English (NE) and in learner English produced by French-speaking learners (henceforth 'French learner English' or FrLE). This corresponds to the 'NL versus IL' comparison in the ICM (see Figure 1). The aim is to identify collexemes that are used by French-speaking learners but are not typical of NE. The second comparison centred around the [V_{inf}] slot of [X *MAKE* Y V_{inf}] in French learner English (FrLE) and in learner English produced by learners from other mother tongue backgrounds (henceforth 'general learner English' or GenLE). This corresponds to the 'IL versus IL' comparison in the ICM. It aims to identify collexemes that are used by French-speaking learners but are not shared (to the same extent) by other learners, which could be a sign that these collexemes are the result of transfer from French.

The NE data come from an extended version of the Louvain Corpus of Native English Essays (LOCNESS) made up of essays written by British and American university students, for a total of 441,173 words.³ The learner English data come from the

³ While the inclusion of data in American English – necessary to have a more sizeable corpus – may have an impact on the results and lead to some differences with the CA using British English data only, any similarities between the analyses will be even stronger given the possible variation between American and British English collocation preferences.

second version of the International Corpus of Learner English (ICLE; Granger et al. 2009), which consists of essays written by upper intermediate to advanced learners who are university students majoring in English. For the FrLE data, the French component of ICLE (ICLE-FR) was used, together with ICLE-FR+25, a corpus similar to ICLE-FR but with data collected 25 years later (see Gilquin 2022 on ICLE-FR+25). For the GenLE data, the whole of ICLE was used minus the French component.⁴

All the instances of the [X MAKE Y V_{inf}] construction were extracted semi-automatically thanks to part-of-speech tagging, following a methodology similar to that described in Section 4.1, with two main differences (see Gilquin 2012: 47). First, for learner English, the distance between MAKE and the non-finite verb was reduced (the non-finite verb had to occur within one to five words), as a pilot study revealed that the average distance was shorter in learner English than in native English. Second, possible non-standard forms of the construction were taken into account, and in particular, *to*-infinitive complements (e.g. *Those dreams will make them to change the world*) and present participle complements (e.g. *Television makes people becoming spectators*) were included as variants of [V_{inf}], since they all correspond to an active verb complement (see Gilquin 2016). The distinctive collexeme analyses were performed by means of Coll.analysis 4.0 (Gries 2022). A summary of the data can be found in Table 2.

5.2 Main results

Below are the main results of the distinctive collexeme analysis comparing FrLE and NE (Section 5.2.1) and that comparing FrLE and GenLE (Section 5.2.2). The

Table 2: Composition of the corpus samples used for the CIA.

	Number of texts	Number of words	Number of causative constructions
Native English: LOCNESS	431	441,173	132
French learner English: ICLE-FR(+25)	606	310,893	121
General learner English: ICLE without ICLE-FR	5,241	3,425,399	1,472

⁴ This represents data from fifteen mother tongue backgrounds: Bulgarian, Chinese, Czech, Dutch, Finnish, German, Italian, Japanese, Norwegian, Polish, Russian, Spanish, Swedish, Tswana and Turkish. Texts were only included if they were produced by learners whose native language was also the main language they spoke at home and who lived in a country where that language was dominant (e.g. Italy for Italian-speaking learners).

collexemes are presented around classes of semantically related verbs, with a focus on classes that are distinctive of one variety or the other.

5.2.1 Comparison of French learner English and native English

Figure 5 shows the results of the distinctive collexeme analysis of the [V_{inf}] slot of [X MAKE Y V_{inf}] in FrLE and NE (see Appendix 4 for the full list of results). The verbs above the line are more distinctive of FrLE, whereas those below the horizontal dashed line are more distinctive of NE. Their position along the x-axis shows their (logged co-occurrence) frequency in the construction. The plot reveals a number of collexemes that are close to the horizontal dashed line (e.g. *feel*, *think*, *become*). These are collexemes that are only very slightly distinctive of one variety or the other, having LORs lower than 2. The collexemes at the top and at the bottom of the plot are verbs that occur in one variety only and are therefore highly distinctive of that variety, having LORs higher than 20.

Collexemes that are strongly distinctive of FrLE include several verbs of change of state or location, including *change*, *come*, *move*, *evolve* and *go away*, as illustrated in (13).

- (13)
- The idea is not to point out that things were done wrong but to prove that we – human beings – are the ones who decide and who can **make** things **change** by educating people correctly.* (ICLE-FR+25-18326)

Among the collexemes strongly distinctive of NE are two verbs (mostly) used as copulas, namely *appear* (LOR = 24.64) and *sound* (LOR = 22.83). By contrast, the copular verb *be* is strongly distinctive of FrLE (LOR = 23.49). Interestingly, *be* is

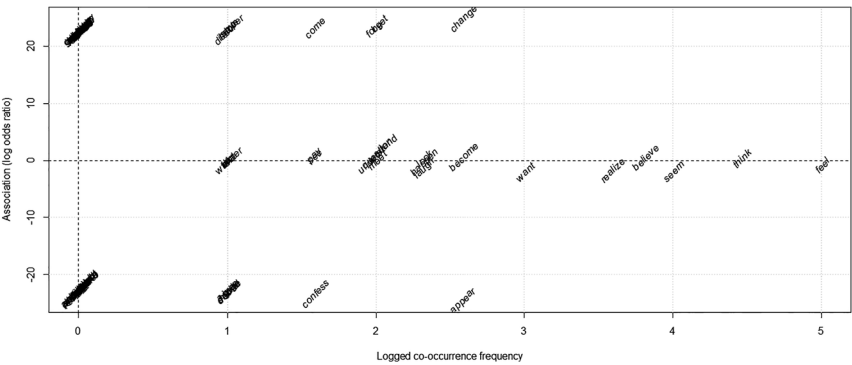


Figure 5: Log odds ratio and logged co-occurrence frequency of the distinctive collexemes of [X MAKE Y V_{inf}] in FrLE (ICLE-FR(+25); top part) and NE (LOCNESS; bottom part).

redundant when used in a causative construction in ICLE-FR(+25). Thus, (14) could be more economically expressed as *V. Woolf wants to make her reader aware of that*. All of learners' uses of *be* in $[X \text{ MAKE } Y \text{ V}_{\text{inf}}]$ could be replaced by adjectival causative constructions (as in [14]) or, in one case, by a past participle causative construction (15).

- (14) *V. Woolf wants to **make** her reader **be** aware of that and of the fact that how hard he may work for peace and harmony, man will never reach it because war will always be there to destroy what he creates.* (ICLE-FR-UC2001)
- (15) *The purpose of this movement was at first to **make** women **be** recognised for what they really were.* (ICLE-FR+25-16023)

5.2.2 Comparison of French learner English and general learner English

The results of the distinctive collexeme analysis of the $[V_{\text{inf}}]$ slot of $[X \text{ MAKE } Y \text{ V}_{\text{inf}}]$ in FrLE and GenLE are shown in Figure 6 (see Appendix 5 for the full list of results). The verbs above the horizontal dashed line are more distinctive of FrLE, whereas those below the line are more distinctive of GenLE. Their position along the x-axis shows their (logged co-occurrence) frequency in the construction.

Many of the collexemes that were only slightly distinctive of NE or FrLE (Figure 5) are also only slightly distinctive of FrLE or GenLE (Figure 6), e.g. *feel*, *think*, *believe*, *become* or *realize*. These are collexemes that do not show a strong preference for one variety or the other.

Among the collexemes that were more clearly distinctive of FrLE than of NE, several verbs describing a change of state or location are also more distinctive of FrLE than of GenLE, e.g. *go away*, *evolve*, *change* and *move*. However, it is important

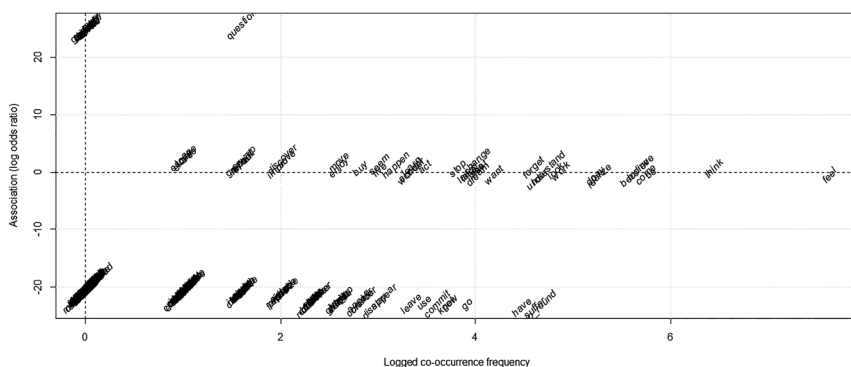


Figure 6: Log odds ratio and logged co-occurrence frequency of the distinctive collexemes of $[X \text{ MAKE } Y \text{ V}_{\text{inf}}]$ in FrLE (ICLE-FR(+25); top part) and GenLE (ICLE without ICLE-FR; bottom part).

to point out that we also find some verbs expressing a change of location among the collexemes distinctive of GenLE, such as *go round*, *go* and *leave*.

As for copular verbs, which were more distinctive of NE than of FrLE, some are also more distinctive of GenLE than of FrLE. This is the case of *appear* and *sound*. The copula *be*, although technically also more distinctive of GenLE, has such a low LOR (0.05) that it can be said to be common to French-speaking learners and learners from other mother tongue backgrounds. The verb is actually found in 13 out of the 16 components of ICLE, which suggests that it is a feature typical of learner English, regardless of learners' mother tongue backgrounds. While in a few cases, the use of the verb is perfectly acceptable, as when it is combined with other infinitives, e.g. (16), most of the time the verb is redundant and the verbal causative construction could more economically be replaced by an adjectival or nominal causative construction, e.g. (17) or (18). This use could be related to the principle of redundancy, which Schneider (2012) claims is a general principle of human cognition likely to influence the process of second language acquisition (and hence is expected to potentially affect all learner varieties).

- (16) *Almost every magazine or newspaper contains articles that are very optimistic in their nature, that **make** people laugh or just **be** happy.* (ICLE-PO-PZ1048)
- (17) *You gave us talents, dreams, emotions everything to **make** us **be** creative and imaginative.* (ICLE-TS-NO1492)
- (18) *And I think that it **makes** us to **be** adults.* (ICLE-JP-WA3020)

6 Bringing CA and CIA together

In an attempt to identify potential cases of negative transfer from French in French-speaking learners' collocational preferences, the results of the CA (Section 4) and the CIA (Section 5) are now brought together. This combined approach relies on the above findings, which focus on verb classes, but also on Tables 3 and 4. These tables list the ten most distinctive collexemes of [X MAKE Y V_{inf}] in FrLE and NE, respectively, and, when relevant, establish a correspondence with (1) the results of the CIA comparing FrLE and GenLE and (2) the results of the translation-based distinctive collexeme analysis comparing English (EN) and French (FR). The verbs in bold in the tables are those for which all analyses point in the same direction, i.e. showing the same distinctive (dis)preferences in French and FrLE.

Table 3: Ten most distinctive collexemes of [X_{MAKE} Y V_{inf}] in FrLE as opposed to NE and their correspondence in the FrLE versus GenLE CIA and in the English (EN) versus French (FR) CA.

CIA		CA	
Verb (LOR)	FrLE versus GenLE preference (LOR)	EN/FR verb pair	EN versus FR preference (LOR)
Change (24.82)	FrLE (2.03)	Change/changer	EN (0.67)
Be (23.49)	GenLE (0.05)	Be/être	EN (21.31)
Forget (23.49)	FrLE (0.91)	Forget/oublier	FR (23.50)
Come (23.27)	GenLE (0.32)	Come/venir	EN (2.47)
Act (23.01)	FrLE (1.01)	Act/agir	FR (21.31)
Discover (23.01)	FrLE (2.51)	Discover/découvrir	FR (23.61)
Learn (23.01)	FrLE (1.12)	Learn/apprendre	FR (22.97)
Move (23.01)	FrLE (1.82)	Move/bouger	FR (0.02)
Stop (23.01)	FrLE (0.72)	Stop/cesser	FR (21.11)
Accept (22.66)	FrLE (0.30)	Accept/accepter	EN (1.37)

The verbs in bold are those showing the same distinctive preferences in French and FrLE.

Table 4: Ten most distinctive collexemes of [X_{MAKE} Y V_{inf}] in NE as opposed to FrLE and their correspondence in the FrLE versus GenLE CIA and in the English (EN) versus French (FR) CA.

CIA		CA	
Verb (LOR)	FrLE versus GenLE preference (LOR)	EN/FR verb pair	EN versus FR preference (LOR)
Appear (24.64)	GenLE (22.32)	Appear/apparaître	FR (0.85)
Confess (23.10)	–	–	–
Sound (22.83)	GenLE (20.41)	Sound/sonner	EN (25.23)
Have (22.83)	GenLE (23.36)	–	–
Get (22.83)	GenLE (22.86)	Get (into)/pénétrer	FR (21.31)
Decide (22.83)	GenLE (22.19)	–	–
Cringe (22.83)	–	–	–
Agree (22.83)	GenLE (20.87)	–	–
Trust (22.49)	GenLE (20.07)	–	–
Take out (22.49)	–	–	–

The verbs in bold are those showing the same distinctive dispreferences in French and FrLE.

In terms of verb classes, verbs expressing a change of state or location tend to be (i) more distinctive of French than of English, (ii) more distinctive of FrLE than of NE and (iii) more distinctive of FrLE than of GenLE. Although the exact verbs are not always the same and some individual verbs do not follow the general tendency (e.g. *go* and *leave* are more distinctive of GenLE than of FrLE), it seems as if this

verb class might be transferred from French [X *FAIRE* V_{inf} Y] to English [X *MAKE* Y V_{inf}]. This is illustrated by (19), a French causative construction with the verb *évoluer* ‘evolve’, and (20), an English causative construction with the verb *evolve* in FrLE.

- (19) *Pour arriver à cela, il a **fait évoluer** les conceptions sur la relativité du mouvement et il a développé l'œuvre de Galilée en quantifiant le mouvement.*
(‘To achieve this, he made the concepts of the relativity of motion evolve and developed Galileo’s work by quantifying motion.’) (Scientext-595)
- (20) *In other words, it permits to prepare and study the basis of our project in order to better **make** it **evolve**.* (ICLE-FR+25-18940)

Table 3 includes a verb from this class, namely *move*, which fulfils all the above criteria (i–iii), but whose LOR for the French preference in the CA is extremely low (0.02). The verb *change* in the table is more distinctive of FrLE than of NE (ii) and GenLE (iii), but it is more associated with [X *MAKE* Y V_{inf}] than with [X *FAIRE* V_{inf} Y] (though with a low LOR of 0.67).

Interestingly, verbs expressing a change of state or location tend to be more typical of the [X *CAUSE* Y V_{to-inf}] construction in English (Gilquin 2006). This suggests that French-speaking learners may transfer such verbs from [X *FAIRE* V_{inf} Y] to [X *MAKE* Y V_{inf}] (probably because of the formal similarity between these constructions), without realizing that these verbs are more typical of another causative construction in English. Favours [X *MAKE* Y V_{inf}] over [X *CAUSE* Y V_{to-inf}] is a tendency that can be observed among other learner populations too, as predicted by the fact that the former construction is more frequent than the latter in native English and also more visible in pedagogical materials (see Gilquin 2010). This could explain the presence of some verbs of change of state or location in GenLE, but would not necessarily exclude the possibility of transfer in the case of French-speaking learners, resulting in more such verbs being distinctive of FrLE.

In contrast to verbs expressing a change of state or location, copular verbs tend to be (iv) more distinctive of English than of French, (v) more distinctive of NE than of FrLE and (vi) more distinctive of GenLE than of FrLE, with the same caveats as above. This suggests that French-speaking learners are different in dispreferring copular verbs in [X *MAKE* Y V_{inf}], which could be due to the fact that copular verbs are not attracted to [X *FAIRE* V_{inf} Y]. It is thus arguably the lack of copular verbs in the French causative construction that is transferred to English. In some cases, the French equivalents of the English copular verbs may be quite uncommon themselves. Table 4 lists the verb *sound* and its French equivalent *sonner*, which fulfil the three criteria of dispreference (iv–vi). This verb is used only once in the French causative construction and not as a copula. The closest equivalent of copular *sound* in French is the use of *sonner* with an adverb, which is however quite rare, occurring only twice in the whole Scientext.

Table 4 includes another potential copular verb: *appear*. While it is also more distinctive of NE (v) and GenLE (vi), the CA shows that it is slightly more distinctive of French than of English (LOR = 0.85). However, as pointed out in Section 4.2, in French it is mostly used as a verb of appearance rather than a copula. In fact, *paraître* would be more likely as a copular verb than *apparaître* (in Scientext, *apparaître* followed by an adjective occurs 93 times, as against 255 for *paraître* followed by an adjective). It is still interesting that French-speaking learners of English do not seem to transfer the use of *apparaître* as a verb of appearance in the English causative construction, which may have to do with the polysemy of the verb.⁵

One major exception to the above tendency for copular verbs to be dispreferred by French-speaking learners is *be*, which comes second in Table 3. As we saw earlier, it is used redundantly in several learner English varieties, including FrLE, and could be the result of a general cognitive principle of redundancy in second language acquisition. Such a principle has been shown to be at work in different non-native varieties of English, materializing for example in the use of double conjunctions (e.g. *Although ... but ...*; Mesthrie 2006: 139) or in the use of a preposition or particle whose meaning is already expressed by the accompanying verb (e.g. *rise up*; Gilquin 2015b: 106). In the present case, the use of *be* could be seen as a special case of redundancy, namely “a strategy of maximizing transparency, increasing the degree of explicitness of marking syntactic relationships” (Schneider 2012: 67). The verb *be* makes the relationship between the object and the object complement explicit (e.g. *make us be creative*), whereas this relationship is kept implicit in the more standard adjectival causative construction (cf. *make us creative*).

Among the verbs in Table 3 not yet discussed, *forget*, *act*, *discover*, *learn* and *stop* could potentially be cases of collostructional transfer, although some of the LORs are quite low. Examples (21) and (22) show parallel uses of *découvrir/discover* in French and FrLE.

- (21) *Le premier rôle du concepteur de cours est donc de **faire découvrir** des savoirs, de mettre à disposition des apprenants des ressources didactiques efficaces.* (‘The first role of the course designer is therefore to make knowledge available [lit. make discover knowledge], to provide learners with effective teaching resources.’) (Scientext-504)⁶

⁵ This would have to be checked by other means, probably experimental, but it is striking that most of the verbs that seem to be transferred from French (those in bold in Table 3) express just one main meaning.

⁶ In French, it is possible to use a *FAIRE* infinitival causative construction with no expressed CAUSEE, e.g. *faire découvrir des savoirs* ‘make discover knowledge’, in which the CAUSEE is implicit (cf. *faire découvrir des savoirs [aux étudiants]* ‘make [students] discover knowledge’).

- (22) *It opens new horizons for us and **makes us discover** other cultures.* (ICLE-FR-UL1031)

Several collexemes in Table 4 lack a correspondence in the ICLE data and, even more often, in the French data. This indicates that some verbs may not be produced by French-speaking learners because their equivalents in French do not occur in causative constructions. In the case of *agree* and *trust*, this may be due to the fact that the French equivalents involve paraphrases (*être/se mettre d'accord* and *avoir/faire confiance*, respectively), which may not be easily combined with [X FAIRE V_{inf} Y]. The verb *confess* is topic-related, with all the occurrences of this collexeme being found in one and the same essay in LOCNESS.

Finally, it should be underlined that, as suggested by the ICM and as known from the literature, transfer is by no means systematic. For example, although *intervenir* is the most distinctive collexeme for French in the contrastive distinctive collexeme analysis (see Figure 4), its equivalent in English, *intervene*, does not occur at all in [X MAKE Y V_{inf}] in ICLE-FR(+25).

7 Conclusion

Using the ICM, this article has sought to highlight possible cases of collocation transfer in the [V_{inf}] slot of [X MAKE Y V_{inf}] in FrLE. The different corpus-based comparisons suggest that French-speaking learners' preference for verbs expressing a change of state or location and some individual verbs like *discover* could be cases of collocation transfer from French to English. Copular verbs (except *be*), on the other hand, are arguably dispreferred by French-speaking learners as a result of these verbs not being typical of [X FAIRE V_{inf} Y]. While the presence of transfer, an essentially cognitive phenomenon, cannot be ascertained on the basis of corpus data alone, the triangulation employed here provides converging evidence that transfer might be at work in some of the learners' collocation preferences, thus going beyond transfer-related claims that are based on one source of evidence only.

More generally, this article has shown how to combine contrastive collocation analysis and contrastive interlanguage collocation analysis to identify possible cases of collocation transfer. Among the limitations of the study are the relatively small amount of data and the very low association measures of certain collexemes. Among the possible areas for improvement are the treatment of formally similar but semantically different collexemes such as *appear/apparaître*. A sense-based approach like that adopted in Gilquin (2013), using semantically tagged verbs as input for the collocation analysis, would likely provide more refined results, which could be valuable to further characterize collocation transfer.

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Appendices

The appendices are available online at <https://osf.io/h3jfg>.

References

- Gilquin, Gaëtanelle. 2000/2001. The Integrated Contrastive Model: Spicing up your data. *Languages in Contrast* 3(1). 95–123.
- Gilquin, Gaëtanelle. 2006. The verb slot in causative constructions. Finding the best fit. *Constructions* Special volume 1(3). 1–46.
- Gilquin, Gaëtanelle. 2008. Causative *make* and *faire*: A case of mismatch. In María de los Ángeles Gómez González, J. Lachlan Mackenzie & Elsa M. González Álvarez (eds.), *Current trends in contrastive linguistics: Functional and cognitive perspectives*, 177–201. Amsterdam: John Benjamins.
- Gilquin, Gaëtanelle. 2010. *Corpus, cognition and causative constructions*. Amsterdam: John Benjamins.
- Gilquin, Gaëtanelle. 2012. Lexical infelicity in English causative constructions. Comparing native and learner collostructions. In Jaakko Leino & Ruprecht von Waldenfels (eds.), *Analytical causatives. From 'give' and 'come' to 'let' and 'make'*, 41–63. München: Lincom Europa.
- Gilquin, Gaëtanelle. 2013. Making sense of collostructional analysis. On the interplay between verb senses and constructions. *Constructions and Frames* 5(2). 119–142.
- Gilquin, Gaëtanelle. 2015a. Contrastive collostructional analysis: Causative constructions in English and French. *Zeitschrift für Anglistik und Amerikanistik* 63(3). 253–272.
- Gilquin, Gaëtanelle. 2015b. At the interface of contact linguistics and second language acquisition research: New Englishes and Learner Englishes compared. *English World-Wide* 36(1). 91–124.
- Gilquin, Gaëtanelle. 2016. Input-dependent L2 acquisition: Causative constructions in English as a foreign and second language. In Sabine De Knop & Gaëtanelle Gilquin (eds.), *Applied construction grammar*, 115–148. Berlin: de Gruyter.
- Gilquin, Gaëtanelle. 2022. Diachronic learner corpus research: Examining learner language through the lens of time. In Susanne Flach & Martin Hilpert (eds.), *Broadening the spectrum of corpus linguistics: New approaches to variability and change*, 40–67. Amsterdam: John Benjamins.
- Granger, Sylviane. 1996. From CA to CIA and back: An integrated approach to computerized bilingual and learner corpora. In Karin Aijmer, Bengt Altenberg & Mats Johansson (eds.), *Languages in contrast. Text-based cross-linguistic studies*, 37–51. Lund: Lund University Press.
- Granger, Sylviane, Estelle Dagneaux, Fanny Meunier & Magali Paquot. 2009. *The International Corpus of Learner English. Version 2*. Louvain-la-Neuve: Presses universitaires de Louvain.
- Gries, Stefan Th. 2007. *Coll.analysis 3.2a. A program for R for Windows 2.x*.
- Gries, Stefan Th. 2019. 15 years of collostructions: Some long overdue additions/corrections (to/of actually all sorts of corpus-linguistics measures). *International Journal of Corpus Linguistics* 24(3). 385–412.
- Gries, Stefan Th. 2022. Coll.analysis 4.0. A script for R to perform collostructional analyses. Available at: <https://www.stgries.info/teaching/groningen/index.html>.

- Gries, Stefan Th. & Anatol Stefanowitsch. 2004a. Extending collostructional analysis. A corpus-based perspective on 'alternations'. *International Journal of Corpus Linguistics* 9(1). 97–129.
- Gries, Stefan Th. & Anatol Stefanowitsch. 2004b. Covarying collexemes in the *into*-causative. In Michel Achard & Suzanne Kemmer (eds.), *Language, culture, and mind*, 225–236. Stanford: CSLI.
- Hoffmann, Sebastian, Stefan Evert, Nicholas Smith, David Lee & Ylva Berglund Prytz. 2008. *Corpus linguistics with BNCweb: A practical guide*. Frankfurt am Main: Peter Lang.
- Matthys, Jana. 2015. *Collostructional transfer in the dative alternation: An experimental study on the transfer of the dative constructions' verb biases by Flemish EFL learners*. Ghent: Universiteit Gent Unpublished MA Thesis.
- Mesthrie, Rajend. 2006. Anti-deletions in an L2 grammar: A study of Black South African English mesolect. *English World-Wide* 27(2). 111–145.
- Schneider, Edgar W. 2012. Exploring the interface between World Englishes and Second Language Acquisition – and implications for English as a Lingua Franca. *Journal of English as a Lingua Franca* 1. 57–91.
- Skehan, Peter. 2008. Interlanguage and language transfer. In Bernard Spolsky & Francis M. Hult (eds.), *The handbook of educational linguistics*, 411–423. Malden: Blackwell Publishing.
- Stefanowitsch, Anatol & Stefan Th. Gries. 2003. Collostructions: Investigating the interaction of words and constructions. *International Journal of Corpus Linguistics* 8(2). 209–243.
- Tutin, Agnès & Francis Grossmann (eds.). 2014. *L'écrit scientifique : du lexique au discours. Autour de Scientext*. Rennes: Presses Universitaires de Rennes.