Comprehensibility of Conventional and Nonconventional Expressions in Second Language French Speech

Javier Bejarano
Laval University

Abstract

This study investigates the effect of conventional and nonconventional expressions on listener comprehensibility. A forty-item comprehensibility test, including conventional expressions, interlanguage attempts, sociopragmatic deviances and alternative grammar constructions produced by French L2 (second language) speakers (*N*=27) was created. Pronunciation effects were controlled by having a single speaker read aloud the items. Using a 100-point sliding scale, comprehensibility was rated by Quebec French L1 (first language) speakers (*N*=34). Results showed a significant effect of the four variables on the raters' scores and a significant difference between them. Conventional expressions were judged the most comprehensible while some alternative grammar constructions seemed not to impose comprehensibility issues. Attempted conventional expressions sharing pragmalinguistics or sociopragmatic resources with the target conventional expression were judged more comprehensible. These findings suggest that comprehensibility can be sensitive to what is familiar and expected by the listener.

Résumé

Cette étude s'intéresse à l'effet des expressions conventionnelles et non conventionnelles en français sur la compréhensibilité des locuteurs L1. Un questionnaire comprenant des expressions conventionnelles, des construction alternatives et des déviations pragmalinguistiques et sociopragmatiques produites par des locuteurs L2 (*N*=27) a été conçu. L'effet de la prononciation a été contrôlé en utilisant un seul locuteur L2. La compréhensibilité a été évaluée par des locuteurs L1 du français québécois (*N*=34) avec une échelle Likert de 100 points. Les résultats ont souligné un effet significatif entre les quatre types de réponses. Les expressions conventionnelles ont été jugées les plus compréhensibles tandis que certaines constructions alternatives semblent ne pas affecter la compréhensibilité. Les déviations partageant des ressources pragmalinguistiques ou sociopragmatiques des expressions conventionnelles ont été jugées plus compréhensibles. Ces résultats suggèrent que le jugement de la compréhensibilité peut être sensible à ce qui est familier et attendu par le locuteur.

Comprehensibility of Conventional and Nonconventional Expressions in Second Language French Speech

Introduction

It has long been recognized that collocations (*make progress*), idioms (*kick the bucket*), phrasal verbs (*take off*), discourse makers (*on the other hand*), and conventional expressions (*what's up?*) are ubiquitous in L1 speaker speech (Biber et al. 1999) and are part of what is called formulaic language (see Wood, 2015, for a review). In L2, the use of formulaic language has been positively associated with perceived oral proficiency (Stengers et al., 2011), oral fluency (McGuire & Larson-Hall, 2017), lexical appropriateness (Saito, 2020) and processing advantages (Wray, 2002) such as being read faster than grammar constructions (Conklin & Schmitt, 2008). One type of formulaic language which has recently been of interest in the field of L2 pragmatics are conventional expressions (Bardovi-Harlig, 2018). These expressions are "sequences with a stable form that are used frequently by speakers in certain prescribed social situations" (Bardovi-Harlig, 2009, p.757). For instance, expressions such as *what's wrong?* in English and *qu'est-ce qui s'est passé?*[1] in French are pragmalinguistic resources that can be used to request why someone is upset. As other types of formulaic language (see Schmitt, 2010 for a review), L2 speakers have difficulties to produce conventional expressions even if they are highly proficient and have been culturally immersed in the L2 context. L2 speakers usually underuse conventional expressions (Bardovi-Harlig, 2009) and produce pragmalinguistic and sociopragmatic deviances (Kecskes, 2000; Taguchi et al., 2013), and alternative grammar constructions (Bardovi-Harlig & Stringer, 2017) when compared with L1 speakers in the same contexts.

Although the presence of formulaic language has positively been associated with listener judgements of L2 oral fluency (Boers et al., 2006), perceived oral proficiency (Stengers et al., 2011) and advanced global proficiency (Forsberg Lundell et al., 2018), little is known about the relationship between use of formulaic language and listeners' ease of understanding of L2 speech, i.e., *comprehensibility* (Saito, 2020). Comprehensibility is usually defined as the "listener's perception of how easy or difficult it is to understand a given speech sample" (Derwing & Munro, 2009, p. 478). This definition has been used by several researchers (e.g., Kang et al., 2018; Saito et al., 2017) because this intuitive judgement can reflect the listener perception of L2 communicative effectiveness (Saito, 2021). Usually measured through Likert-type scalar ratings (Isaacs & Thomson, 2013), studies have shown that comprehensibility is associated with many linguistic factors such as pronunciation (Saito, 2021), oral fluency (Derwing et al., 2004), lexis and grammar (Saito et al., 2016) and is influenced by extralinguistic factors such as task effect (Crowther et al., 2018), and listener familiarity with the L2 accent (Bergeron & Trofimovich, 2017).With respect to formulaic language, to our knowledge, only Saito (2020) and Saito & Liu (2021) have explored its relation with L2 comprehensibility. The purpose of this study is to pursue this line of inquiry by exploring the relationship between comprehensibility and one specific type of formulaic language: conventional expressions.

Background and Research Questions

Conventional Expressions

The term *conventional expression* was proposed by Bardovi-Harlig (2009) to distinguish the social and pragmatic aspects of formulaic language from psycholinguistic advantages such as being retrieved faster than grammar constructions (Wray, 2002). Although other terms have been proposed in the field of pragmatics such as *institutionalized expressions* (Nattinger & DeCarrico, 1992) or *situation-bound utterances* (Kecskes, 2015), the term conventional expression has been adopted by many researchers in the field of L2 pragmatics in English (see Bardovi-Harlig, 2018) and French (Edmonds, 2013). These expressions are used to perform speech acts (Nattinger & DeCarrico, 1992) and may be encoded using different sociolinguistic variants without changing the meaning of the expression (Edmonds, 2013). For example, *t'en penses quoi? Qu'est-ce que t'en penses ?* (What do you think? used in an informal context) and *qu'est-ce que vous en pensez?* (What do you think? used in a formal context). L2 pragmatics research has often used a discourse completion task (DCT) to collect conventional expressions from L1 and L2 speakers. In this task, the candidates are told to respond to a scenario as they would do in a real-life situation. Expressions which are used by more than 50% of L1 speaker's responses are considered conventional expressions (Bardovi-Harlig, 2009; Beaulieu et al., 2022; Edmonds, 2013).

In the field of interlanguage pragmatics research, Bardovi-Harlig and colleagues (Bardovi-Harlig & Stringer, 2017; Bardovi-Harlig, & Su, 2018) have investigated the acquisition of conventional expressions by L2 learners. Bardovi-Harlig (2009) showed that 122 intermediate and advanced learners of English could recognize the meanings of conventional expressions presented in a computer-delivered aural DCT but produced less conventional expressions in an oral DCT. L2 speakers also produced less conventional expressions than their L1 speaker peers (N=49). However, significantly more conventional expressions were produced as L2 proficiency level increased. Bardovi-Harlig and Stringer (2017) investigated the development of conventional expressions by the learners in Bardovi-Harlig (2009) and Bardovi-Harlig & Vellenga (2012). The researchers analyzed the responses from an oral DCT performed by 217 intermediate and advanced learners with different L1s. The analysis revealed that L2 speakers produced conventional expressions (*sorry I'm late*), alternative grammatical forms (*sorry for being late*), and interlanguage attempts (*sorry for late*). Interestingly, alternative grammatical forms and interlanguage attempt include the lexical core of the conventional expression (*sorry* and *late*). What differs between the two is the accuracy of the expression produced, with interlanguage attempts being ungrammatical. Again, as their proficiency level increases, L2 learners produced more conventional expressions and less alternative constructions and interlanguage attempts.

The fact that L2 speakers produce deviances from the conventional target expressions has also been observed in other studies. Taguchi et al. (2013) investigated the acquisition of 24 expressions in 31 intermediate L2 learners of Chinese before and after 10 weeks abroad. The analysis of learners' production revealed the presence of the same types of deviances observed in Bardovi-Harlig and Stringer (2017), including interlanguage attempts, and alternative grammatical forms as well as another type of deviance; part of the expression plus a substituted lexical item (*nice to encounter you* instead of *nice to meet you*). More recently, Bardovi-Harlig & Su (2018) employed a computer-delivered oral DCT to elicit conventional expressions from 57 L2 speakers having different levels of Mandarin as foreign language. The analysis of learners'

responses revealed that L2 speakers produced alternative grammatical forms and interlanguage attempts, and some learners responded with a conventional expression that did not correspond to the speech act solicitated (i.e., a sociopragmatic deviance). Alternative grammatical constructions of the target conventional expression were produced more often by advanced learners.

The studies presented in this section suggest that learning to use target conventional expressions is slow as learners produce different types of deviances before producing them correctly. As pointed out by Taguchi et al. (2013), the development of conventional expressions production has different processes of convergence, divergence, and stabilization. Although L2 speakers, independently of their L2 level, produce alternative grammatical forms and attempted conventional expressions whose pragmalinguistic or sociopragmatic encoding do not correspond to L1 norms, to our knowledge, the effect of these nonconventional responses and deviances on L2 comprehensibility has not been studied.

Comprehensibility and Formulaic Language

As mentioned above, formulaic language has been positively correlated with different constructs related to L2 performance such as oral fluency (Boers et al., 2006) and lexical appropriateness (Saito, 2020), but very few studies have investigated its relationship with L2 comprehensibility. So far these studies have not adopted the traditional approach to comprehensibility ratings in which judges evaluate the oral speech samples presented. To control for the influence of oral performance (strength of accent, dysfluencies, etc.) and isolate the contribution of formulaic language, raters are presented with transcribed texts (a procedure borrowed from Saito et al., 2016, to provide a more elaborate picture of the relationship between vocabulary use and L2 speech comprehension). Saito (2020) analyzed the transcriptions from a picture description task performed by 85 Japanese learners of English with different proficiency levels. A statistical method was used to identify formulaic language (specifically collocations) by detecting the most frequently recurring bigrams and trigrams in the Corpus of Contemporary American English. Comprehensibility was operationalized in terms of how easily speech could be understood and was rated with a 1000-point Likert scale by five L1 speakers without experience in linguistics. Strong correlations were found between the comprehensibility scores and the use of collocations, more precisely low frequent collocations. Multiple regressions analysis revealed that 48% of comprehensibility judgement relied on the use of collocations.

Saito & Liu (2021) investigated the role of collocations in comprehensibility ratings in two different task conditions. The authors analyzed 66 transcriptions from Saito (2020) in which Japanese participants performed in English a picture description and an oral interview task. Four L1 novice speakers rated comprehensibility with a 1000-point Likert scale. A strong correlation was only found between comprehensibility and the collocations measures in the picture task. Collocations are a strong predictor of L2 comprehensibility in this task (50%) and a medium predictor of L2 comprehensibility in the oral interview task (9%). These two studies show that formulaic language is associated with high L2 comprehensibility. However, they tell us little about the effect of attempted formulaic language on L1 speaker's understanding. Since, to the best of our knowledge, no studies have established this relationship, we turn to studies which have explored the impact of attempted formulaic language on other intuitive listener-based judgements.

Millar (2011) examined how an inappropriate lexeme (e.g., *best partner* instead of *ideal partner*) and an inappropriate form of a lexeme (e.g., *child abusing* instead of *child abuse)* produced by 32 L2 speakers can impact on L1 speakers' information processing. Formulaic language was operationalized through collocations by using a statistical method (bigrams frequency) in the British National Corpus. The deviances and their L1 equivalents were embedded in single sentences which differed only by a single word (the deviance, e.g., thanks *to the Internet, Kevin was able to find his best partner through online dating*). Fifteen L1 speakers were asked to read on a screen each sentence and answer a true or false statement. The reaction time between each sentence was recorded. The results showed that reading comprehension was not significatively affected by L2 speakers' deviances although the judges read the sentences containing deviances significatively more slowly. A significant effect was found only from inappropriate lexeme deviances indicating that this type of deviance has a stronger impact on L1 speakers' information processing. However, these results should be taken with caution because the number of deviations analyzed is not quantitatively comparable (Seven inappropriate lexemes against 27 inappropriate forms of lexemes).

Prodromou (2007) analyzed the acceptability of formulaic language (e.g., *for my part*) and L2 deviances (e.g., *in my part*) in English. 400 English teachers judged the acceptability (yes / no question) of sentences in which the formulaic language or L2 deviances were embedded. Sentences with L2 deviances were considered unacceptable by L1 speakers (N=200) only when they were told that the sentences were written by L2 speakers. This reveals that L1 users can bend idiomaticity rules while L2 users cannot. It seems that some formulaic deviances could have little effect on listeners' judgements of L2 speech.

The studies presented above are focused on collocation deviances and their impact on L1 speakers' judgements. We turn now to a study that comes close to our subject of study, the conventional expressions. Beaulieu et al. (2022) explored how L2 French alternative grammatical form (e.g., *elle est Laure* instead of *je te présente Laure*), pragmalinguistic, and sociopragmatic deviances affect L1 speakers' evaluation of perceived communicative effectiveness and perceived likeability. Pragmalinguistic deviances can be associated with interlanguage attempts (e.g., *c'est peu importe* instead of *peu importe*) in Bardovi-Harlig and Stringer (2017) while sociopragmatic deviances are conventional expressions that do not correspond to the speech act solicitated (e.g., *est-ce que je peux te parler de quelque chose* instead of *qu'est-ce que tu en penses?* for asking for an opinion). After reading a DCT scenario accompanied by an answer (24 prompts: 12 with a conventional expression; 12 with a deviance, four of each type), 62 speakers were asked to evaluate on a continuous scale how likeable and effective a communicator the L2 speaker was. Results showed that attempted conventional expressions were judged more severely on both dimensions than the target conventional expression. Deviances that partly included the pragmalinguistic or sociopragmatic resources preferred by target community members were evaluated positively.

In all, Saito (2020) and Saito & Liu (2021) revealed that formulaic language (collocations) is correlated with intuitive judgements of comprehensibility. Although the effect of attempted formulaic language on comprehensibility was not studied in the other studies reported, the results suggest two tendencies on L1 speakers' judgements of L2 speech. First, small deviances (including the lexical core, inappropriate form, and being produced by L2 speakers) from the target formulaic language can have little impact on L1 listeners. Second, deviations within the formulaic language that do not carry the same meaning as their formulaic equivalent (the lexical core) can be judged negatively by L1 listeners.

As previous studies exploring the lexicogrammar dimension of comprehensibility (e.g., Saito et al., 2015), the studies reported previously used written prompts and transcriptions to ensure that L1 speakers' judgements were not influenced by other speech qualities such as accent or fluency. However, as Beaulieu et al. (2022) reported, evaluation of the written transcriptions may make ungrammatical expressions more salient and thus lead judges to evaluate them more severely than what would have had they been presented in an oral format. To increase the ecological validity of such comprehensibility rating tasks, the same L2 voice could be used to hold constant speaker's oral speech characteristics (see Derwing et al., 2002).

The Current Study

The current study expands the scope of inquiries focusing on the role of formulaic language and comprehensibility by considering the relation between conventional expressions in French and L2 comprehensibility. In addition, following L2 speakers' conventional expressions development reported by Bardovi-Harlig and colleagues (Bardovi-Harlig, 2009; Bardovi-Harlig & Stringer, 2017; Bardovi-Harlig & Su, 2018), this study investigates the effect of L2 French attempted conventional expressions (pragmalinguistic and sociopragmatic deviances and alternative grammar constructions) on L2 comprehensibility. The purpose of this study is thus to understand the relationship between conventional expressions (and the different types of deviances) and L2 comprehensibility. In particular, the current study addresses the following research question:

> What is the relationship between listener' judgments of L2 comprehensibility and speakers' use of conventional expressions and attempted conventional expressions (an alternative grammatical form, an interlanguage attempt, or a sociopragmatic deviance)?

Method

Speakers

Participants were 27 Spanish L1 speakers (M_{age} = 38.2 years, range = 27- 42) from Colombia who lived in Quebec City (*M* = 4.3 years, range = 1-8) at the time of the study. The speakers immigrated to Canada with the Quebec Skilled Workers Program in which a French B2 level certificate is required. Some of them (*N*=10) also followed six of the eight levels of the government-funded French language training program. All participants reported working in a French-speaking environment, having daily interactions with L1 speakers (*M* = 64%, range 10-100), and having studied in professional fields different from language teaching.

Identification of Conventional and Attempted Conventional Expressions

Ten-scenarios used in Edmonds (2013) and adapted to the Quebec context by Beaulieu et al. (2022) were borrowed to elicit conventional expressions from L2 speakers. A computer delivered oral DCT including ten situations (and two examples) was administrated. First, two examples in Spanish and two in French were presented to familiarize the speakers with the task. In these examples, the scenario was read in each language and two possible responses were given. Second, the ten situations were presented in a written format and read slowly by a L1 speaker. Twenty seconds were

given to the participants to give as many responses to the scenario as they could. Five Quebec French L1 speakers also responded to the DCT to ensure that the scenarios elicited conventional expressions.

Conventional expressions produced by our participants were those identified as such by Beaulieu et al. (2022) following the protocol established by Bardovi-Harlig (2009), and validated in French by Edmonds (2013): 1) the expression is composed by at least two words; 2) the expression is produced fluently; 3) the expression is usually used in the same form (although some variation is allowed as mentioned previously); 4) the expressions is situationally dependent and used across the community. Table 1 presents the ten speech acts solicited in each situation with the conventional expression produced by both L1 participants in Beaulieu et al. (2022) and our participants.

Table 1

Speech Acts and Conventional Expressions Produced by Both L1 Participants in Beaulieu et al. (2022) and Our Participants

ID	Speech act	Conventional expression
1	Request for information	Qu'est-ce qui se passe ?
2	Clarification	Qu'est-ce que tu veux dire ?
3	Asking for an opinion	Qu'est-ce que tu en penses ?
4	Explanation phone problem	J'entends pas
5	Introduce a friend	Je te présente + nom
6	Understanding	Pas d'problème
7	Offering help	Comment je peux vous aider?
8	Thanking a compliment	Merci beaucoup
9	Request for information	Qu'est-ce qui s'est passé ?
10	Apology	Je suis désolé d'être arrivé en retard

Nonconventional responses were identified according to the findings in Bardovi-Harlig and colleagues (Bardovi-Harlig, 2009; Bardovi-Harlig & Stringer, 2017; Bardovi-Harlig & Su, 2018). Bardovi-Harlig et Stringer (2017) found that learners produced alternative grammatical forms and interlanguage attempts. The latter corresponds to correct grammar constructions that are not considered conventional expressions and can be used to perform a speech act. For example, instead of using the conventional expression *qu'est-ce que tu en penses?* (what do you think?) for requesting the opinion of somebody about deciding something (scenario 2), the learner would produce *qu'elle est ton opinion sur ma situation?* (what is your opinion about my situation?). As reported by Bardovi-Harlig et Stringer (2017), some alternative grammar constructions can also have the lexical core of the conventional expression: *qu'est que tu penses de ma situation?* (what do you think about my situation?). On the other hand, interlanguage attempts are constructions whose pragmalinguistic encoding do not correspond to the L1 norms. Different types of grammar errors can be identified in these constructions. Finally, Bardovi-Harlig & Su (2018) reported that learners had some sociopragmatic problems when using conventional expressions. They used a conventional expression that does not correspond to the speech act solicitated. For instance, the expression *comment tu vas?* (how are you?) does not seem to be appropriate for starting an interaction with someone who has just lost a family member. A conventional expression more appropriate would be *toutes mes sympathies* (my condolences). In this study, these nonconventional expressions are called sociopragmatic deviances.

A multiple-choice test was created with the most frequent L2 learners' responses (*N*=78) in the ten situations from the oral DCT. Four L1 teachers familiar with the

conventional expression literature were recruited to validate the L2 speakers' responses. After reading the scenario presented to the speakers, the judges were asked to choose for each response if it was a conventional expression, an alternative grammatical form, an interlanguage attempt or a sociopragmatic deviance. The option *any of them* was also given to avoid forcing the judges to select only one type of answer. They were also told to explain their choice. The four judges showed good and acceptable consistency in their choice of type of response. For interlanguage attempts and conventional expressions, reliability values were good (a = 0.85) while alternative grammatical forms and sociopragmatic deviances, reliability values were acceptable (a = 0.70, = 0.67 respectively). Table 2 presents nonconventional responses included in the test after the test results.

Table 2

Nonconventional Responses Produced by L2 Participants

ID	Alternative grammatical forms	Interlanguage attempts	Sociopragmatic deviances
1	Il y a quelque chose que je peux faire pour toi ?	Qu'est-ce qu'il passe?	Comment ça va?
2	Je veux savoir où tu as pris l'information	Qu'est-ce qu'il y a passé?	C'est bon
3	Est-ce que tu peux me donner ton avis?	Qu'est-ce que en penses de la situation?	Qu'est-ce que je peux faire?
4	Je pense qu'il y a un problème de communication	J'écoute pas bien	J'ai du mal à suivre ce que tu racontes
5	Je t'introduis Laure	Elle est Laure	Je te fais voir Laure
6	C'est pas un problème	Ça pas problème	Oui, bien sûr
7	C'est quoi la chose qui est arrivée?	Qu'est-ce qu'est arrivé?	Qu'est-ce qu'il y a?
8	Merci de ton compliment, toi aussi	Beaucoup merci, toi aussi	Fait plaisir, merci
9	Est-ce que vous avez besoin de conseils?	Que je peux vous aider?	Êtes-vous corrects?
10	Je tiens à m'excuser pour mon retard	Je suis désolé pour arriver en retard	Je suis un peu en retard

Comprehensibility Rating Procedure

The studies interested in the lexicogrammar dimension of comprehensibility usually isolate the effect of the pronunciation dimension such as phonemes accuracy, intonation, and fluency by using transcriptions of the L1 speakers' productions (e.g., Bergeron & Trofimovich, 2017; Saito et al., 2016). However, as it was mentioned previously, we want to keep the ecological validity of conventional expressions in oral communication by analyzing only the lexicogrammar dimension of comprehensibility. Inspired by Derwing et al. (2002) in which a single speaker was used to avoid the confounding influence of pronunciation on L2 speech, a French teacher (L1 Spanish) with a master's degree in didactics who has lived in Quebec for eight years recorded the conventional expressions (N=10), the alternative grammatical forms (N=10), the interlanguage attempts (N=10) and the sociopragmatic deviances (N=10). Each sample

was carefully recorded according to the situations and the intonation that a L1 speaker would reproduce it in the same situation.

A computer-based questionnaire hosted on LimeSurvey was created and included the evaluation of the ten scenarios. Each scenario from the oral DCT had four proposed responses: a conventional expression, an alternative grammatical form, an interlanguage attempt, and a sociopragmatic deviance. For each DCT scenario, the raters heard the situation and the four responses once. The four responses for each situation were presented randomly. Each scenario from the oral DCT was shown in written and oral format. The responses were presented only in an oral format. Following Derwing & Munro (2009), the judges were told to rate on a 100-point scale the degree to which they found it easy or difficult to understand each response for each situation. Each scale included a free-moving slider on a horizontal plane, with the leftmost end (hard to understand) corresponding to "1" and the rightmost end (easy to understand) corresponding to 100. The questionnaire lasted no more than 20 minutes as suggested to avoid boredom and fatigue (Schleef, 2013).

Although we used a single speaker to control for the influence of pronunciation on L2 comprehensibility, the judges were told to not consider this dimension in their judgment. To ensure that this was the case, a yes/no question about the influence of the pronunciation was included after the comprehensibility judgment for each response. Table 3 presents the percentage of pronunciation influence on L2 comprehensibility.

Table 3

Percentage Pronunciation Influence on Comprehensibility Judgements

Responses	Percentage (%)	Responses (total)
Conventional expressions	15%	51/340
Alternative grammatical forms	16%	54/340
Interlanguage attempts	21%	71/340
Sociopragmatic deviances	15%	52/340

After tallying the number of times, the raters selected "yes" from the yes/no question for each response, the results showed that the influence of pronunciation cannot be completely controlled in L2 comprehensibility, more precisely when judging interlanguage attempts (21%). However, the percentage of the pronunciation influence is relatively low (mean 17%)

Raters

Thirty-four (19 women and 15 men) L1 speakers (M_{age} = 30.6 years, range = 24 - 46) from Quebec City participated as raters. As our speakers, they reported not having experience in language teaching. These inexperienced raters can reflect real life interaction with L1 speakers outside the L2 classroom. Although experienced raters have shown greater consistency in comprehensibility and accent evaluation, studies have found that this difference has not been significant (Isaacs & Thompson, 2013; Saito et al., 2017) The 34 raters showed good and acceptable consistency in their comprehensibility ratings. For alternative grammatical forms and interlanguage attempts, reliability values were good (a = 0.88, = 0.81 respectively) while for conventional expressions and sociopragmatic deviances, reliability values were acceptable (a = 0.78, = 0.76 respectively).

Results

Comprehensibility ratings

Descriptive statistics of comprehensibility ratings for conventional, alternative grammatical forms and attempted conventional expressions are presented in Table 4.

Table 4
Comprehensibility Ratings in the Ten Situations for Each Type of Response

Responses	Mean (SD)	Range
Conventional expressions	95.7 (4.8)	85.4 – 100
Alternative grammatical forms	87.2 (7.0)	76.0 – 100
Sociopragmatic deviances	77.8 (13.2)	48.4 – 100
Interlanguage attempts	68.7 (17.4)	41.8 – 100

These ratings were submitted to a linear mixed model with three-way repeated ANOVA to establish whether conventional and nonconventional responses were significantly associated with L2 comprehensibility. This model includes the dependance between the 40 responses (four responses for the ten oral DCT situations) with each rater (random factor), the effect of each scenario in the four types of responses (fixed effect), and the dependance between the four types of responses. The results showed a significant main effect of the four type of responses [($F(3,1016) = 127.64$), ($p < .0001$)] on comprehensibility, and a significant linear effect between them [($F(1,1016) = 382.77$), ($p < .0001$). These results underline that the conventional expressions and nonconventional responses have a significant effect on L2 comprehensibility, and this effect increases or decreases depending on each type of response. Pairwise Bonferroni comparisons were carried out to better understand the interaction between L2 comprehensibility and the responses' effects. The results reveal a significant difference ($p < .0001$) among the four categories. We can conclude that there is a positive relation between conventional expressions and L2 comprehensibility, and this relation significantly decreases with the types of responses: conventional expressions > alternative grammatical forms > sociopragmatic deviances > interlanguage attempts.

Discussion

The present study examined the relationship between conventional and nonconventional responses in French and L2 comprehensibility. L1 Spanish speakers of French produced conventional expressions and three types of nonconventional responses: alternative grammatical forms, interlanguage attempts, and sociopragmatic deviances. These responses were re-recorded by a single competent speaker of L2 French to control for the effect of pronunciation on the intuitive judgement of L2 comprehensibility raters.

Our research question aimed to shed light on the relationship between conventional and non-conventional expressions and L2 comprehensibility in ten situations. Overall, results suggest that conventional expressions serve an important role in L2 comprehensibility which supporting the results of previous studies that formulaic language is strongly associated with L2 oral performance (Saito, 2020; Saito & Liu, 2021; Stengers et al., 2011). Positive judgement on conventional expressions can be explained by the fact that the speech samples were re-recorded by a L2 high competent speaker without unnatural pauses or hesitations, and L2 fluency has been strongly

correlated with both formulaic language (McGuire & Larson-Hall, 2017) and comprehensibility (Derwing, et al., 2007). Moreover, formulaic language seems to be processed faster than grammatical constructions (Conklin et Schmitt, 2008; Jiang et Nekrasova, 2007), sustaining the idea that the listeners could be focus on the holistic meaning of the responses (Wray & Perkins, 2000), in which the conventional expressions had psycholinguistics advantages such as being treated faster (Edmonds, 2013) than other constructions. Indeed, even the alternative grammatical forms were judged significantly less comprehensible (87.2 out of 100) than the conventional expressions. The high score of conventional expressions can also be related to the fact of using a low cognitive demand task (Crowther et al., 2018). The task was short and predictable for the listeners. They heard a conventional response and frequent within their linguistic community.

Although the conventional expressions were produced fluently and are part of the L1 community, they did not obtain the highest score (95.7 out of 100). Looking at the judges' consistency ($a = 0.78$) and the standards deviations (see Table 2) on comprehensibility judgement, we can deduce that other aspects could have influenced the raters such as the pronunciation, listeners' backgrounds, and their attitudes towards the speakers. According to Saito (2021), raters tend to focus first on segmental (e.g., phonemes) and prosodic (e.g., word stress) accuracy rather than fluency in the intuitive evaluation of the accent. We hypothesize that some raters could have been influenced by these aspects although they were told to not consider the L1 of the speaker. In fact, 15% (51/340 responses) of the comprehensibility judgment were influenced by the speaker's pronunciation. This observation is in line with the results reported by Kennedy & Trofimovich (2008) in which grammatically correct utterances were judged significantly less comprehensible and more accentuated only when they were produced by L2 speakers. The authors suggested that the position of vowels or consonants in a sentence can influence L2 comprehensibility and accentedness. For instance, English/z/ seems to be more problematic for the participants (Mandarin speakers) at the beginning than at the end of the targeted sentences.

This study also sought to explore the effect of alternative grammatical forms, sociopragmatic deviances, and interlanguage attempts (grammar errors inside the expression) on L2 comprehensibility. The results showed that the three types of nonconventional responses were judged more severely than conventional expressions, with interlanguage attempts affecting the most the raters' comprehensibility (68.7 out of 100). These results are in line with previous studies in which comprehensibility is strong correlated with grammar accuracy (Isaacs & Trofimovich, 2013 Saito et al., 2015). However, when we look closer at individual items, it was found that interlanguage attempts in which the grammar mistake was in the lexical core (verb choice), were judged more severely (comprehensibility rating 56.3 against 77.8 out of 100). This was the case of situations 2, 4 and 5 (see Table 2). These results are in line with those reported by Millar (2011) in which a significant effect on L1 speakers' information processing was found when inappropriate lexemes in collocations were produced.

Sociopragmatic deviances were the second nonconventional responses that caused more effort of understanding (77.8 out of 100). Like interlanguage attempts, some sociopragmatic deviances affected L2 comprehensibility. Sociopragmatic deviances which differed from the target community's sociopragmatic norms and could be interpreted as rude were judged more severely (47.6). For example, in situation 2 (asking for clarification), the expressions *c'est bon* (it's ok) expresses the desire to stop the conversation instead of continuing the conversation and asking for clarifications. Interestingly, these kinds of expressions (as in situation 5, see Table 2) obtained a lower

score if we compare with interlanguage attempts in which the grammar mistake was in the lexical core. As in previous studies, grammatical mistakes can be judged as the lack of grammatical competence while pragmatic errors can be considered offensive (Nguyen, 2008; Thomas, 1983). Sociopragmatic deviances that are closed or can complement the conventional expressions targeted were judged much more positively (88.2). For instance, in situation 1 (request information for why a friend is sad), the expression *comment ça va?* (how are you?) can follow the targeted conventional expression *qu'est-ce qui se passe?* (What's happening?).

On the other hand, alternative grammar constructions received the closest score (87.2) to conventional expressions (95.7) on L2 comprehensibility. These results support the idea that some difference between L1 and L2 speakers' norms can be heard as different but still appropriated in communication (Kasper & Schmidt, 1996). Indeed, Hendriks (2010) found that syntactic modifications (e.g., *can* instead of could) had only a significant effect on perceived status (e.g., intelligent) and personality (e.g., kind) rather than comprehensibility (operationalized as clear message). Alternative grammar constructions in situations 1, 3, 4 and 9 (see Table 2) which do not have the lexical core of their conventional expressions equivalent were judged more severely (under 90). The fact of not having the lexical core of the expected conventional expression leads us to hypothesize that the lack of familiarity with the responses in a specific scenario may cause a cognitive effort in some judges when assessing L2 comprehensibility. Formulaic language belongs to the sociocultural reality of the host community (Dörnyei et al., 2004) and conventional expressions are "agreements" between the members of that community in specific situations (Bardovi-Harlig, 2009). Moreover, studies analyzing the effect of sentence frequency argue that more frequent formulaic language is processed significantly faster (reaction time) than less frequent (Yi, 2018) as well as alternative grammar constructions (Conklin and Schmitt, 2008; Edmonds, 2013; Jiang and Nekrasova, 2007). Following the results of sociopragmatic deviances, it can be argued that the further nonconventional responses move away from the pragmalinguistic and sociopragmatic resources of the L2 community, the more they are severely judged.

Trofimovich et al. (2022) argue that comprehensibility can capture two major dimensions: aspects of listener's understanding of L2 speech and aspects of real-time experience with the L2 speech. In our study, the former was reflected by listeners' processing difficulty of conventional and nonconventional expressions. However, the later was completely neglected. Listeners' responses to various types of expressions and their processing difficulty could be also influenced by their experience with the responses (e.g., surprise at having strange or inappropriate expressions, linking the response to a given DCT context or reconciliating the expected expression with a more prescriptive one). As a methodological recommendation, further research should consider this variable when investigating L2 comprehensibility.

Finally, although the purpose of this study was to analyze the lexicogrammar dimension of comprehensibility, the influence of L2 pronunciation cannot be neglected in the current study. The influence of pronunciation was very similar between conventional expressions (15%, 51/340 responses), sociopragmatic deviances (15%) and the alternative grammatical constructions (16%, 55/340 responses). However, interlanguage attempts obtained the highest pronunciation influence of comprehensibility judgement (21%) suggesting previous studies in which grammar mistakes are highly correlated with perceived accent (Cargile & Giles, 1998; Ruivivar & Collins, 2019). L2 speakers perceived with a stronger accent were also perceived as having a weaker grammatical competence. Although our L2 speaker produced fluently expressions preferred in the host community and alternative grammar constructions, the

influence of pronunciation in all responses reinforces the idea mentioned previously that comprehensibility and pronunciation are overlapping constructs when evaluating L2 oral performance (Derwing & Munro, 2009).

Implications and Conclusions

The findings of this study overall support previous research into the role of formulaic language on perceived L2 oral performance (Saito, 2020; Stengers et al. 2011), more precisely the role of conventional expressions on L2 comprehensibility. Our results showed that conventional expressions are strongly linked with comprehensibility, and nonconventional responses reported in previous studies in L2 learners of English (Bardovi-Harlig & Stringer, 2017) and Mandarin (Bardovi-Harlig, 2018; Taguchi et al, 2013) affected L2 comprehensibility in different degrees. All nonconventional responses produced in French by Spanish speakers significantly affected L1 speakers' intuitive judgement on comprehensibility, especially interlanguage attempts with grammatical errors in the lexical core and sociopragmatic deviances that could be considered offensive. Alternative constructions are those requiring less effort in comprehensibility and support the idea that some of them can be perceived as perfectly appropriate constructions. This observation and the fact that nonconventional responses share pragmalinguistics (lexical core) or sociopragmatic (accompany the expected expression) resources, suggest that L2 comprehensibility can be sensitive to what is expected (conventional) by the listener.

The results of the present study have some implications on second language teaching. Alternative grammar constructions can be appropriated to perform a speech act while learners acquire enough experience with the L2 to stabilize the use of some conventional expressions. Although alternative grammar constructions were judged significantly less comprehensible than conventional expressions, when we look at the mean score (mean 87.2; range 76-100) the latter were enough and completely comprehensible for some judges. This observation is relevant where the objective of L2 mastery is to reach a comprehensible oral performance (Derwing et al., 2007; Kennedy & Trofimovich, 2019). Communication cannot only depend on what is privileged in L1 speakers, especially formulaic language which has been considered to come relatively late in L2 (Wood, 2015) and an attribute of very advanced-learner competence (Bartning et al., 2012). Language teaching should therefore focus on an approach allowing learners to produce both conventional expressions and alternative grammar constructions that can be judged appropriate and comprehensible. A task-based approach can be a pedagogical approach that has these characteristics by leading learners to use a pragmatic sense of language (Bygate, 2016). The task may reflect real life situations in which learners can notice conventional expression in the input (see Bardovi-Harlig & Vellenga, 2012 for a pedagogical suggestion with the sitcom *Friends*) and promote opportunities to practice them orally (Wood, 2015), while learners develop other dimensions of oral performance such as fluency and comprehensibility (Pellicer-Sánchez & Boers, 2018).

This study is not, however, without limitations. First, the influence of pronunciation (mean 17%) on the judgement of comprehensibility should be underlined, especially on the interlanguage attempts responses. Even if the percentage is relatively low, it demonstrates a methodological constraint when we want to reproduce real life interactions (ecological validity of oral performance). It could be constructive to conduct a similar study in which pronunciation is completely controlled by rating L2 comprehensibility through transcriptions of L2 production as researchers have

suggested in previous studies (e.g., Saito et al., 2016). Second, the affective and behavioral dimension of compensability was not considered in this study. Different factors such as beliefs and stereotypes towards L2 speakers were not analyzed in our study, and those factors could also influence L2 comprehensibility judgement. For instance, Beaulieu et al. (2022) found that nonconventional responses that partly had pragmalinguistic or sociopragmatic resources used by the target community members were judged positively on raters' impression of likeability and communicative effectiveness. This study was done with similar raters to our study, meaning that comprehensibility should have been positive influenced by raters' perceptions of the immigrants. Following Kasper & Schmidt (1996), more research is needed to know which differences from L1 norms do not result in negative attitudes and are considered appropriate alternative comprehensible constructions.

Correspondence:
Correspondence should be addressed to Javier Bejarano.
Email: javier.bejarano-ruiz@elul.ulaval.ca

Notes:

[1] The conventional expressions presented in this article do not take into consideration the pronunciation. They are presented in written language to generalize and facilitate reading comprehension. For instance, the expression *qu'est-ce qui se passe ?* can be pronounced */qu'es qui s'passe? /* or */ que cé qui s'passe ? /.*

References

Bardovi-Harlig, K. (2009). Conventional expressions as a pragmalinguistic resource: Recognition and production of conventional expressions in L2 pragmatics. *Language Learning, 59*(4), 755-795. https://doi.org/10.1111/j.1467-9922.2009.00525.x

Bardovi-Harlig, K. (2018) Formulaic language in second language research. In A. Siyanova-Chanturia, & A. Pellicer-Sánchez (Eds.), *Understanding formulaic language: A second language acquisition perspective* (pp. 97-112). Routledge.

Bardovi-Harlig, K., & Stringer, D. (2017). Unconventional expressions: Productive syntax in the L2 acquisition of formulaic language. *Second Language Research*, *33*(1), 61-90. https://doi.org/10.1177/0267658316641725

Bardovi-Harlig, K., & Su, Y. (2018). The acquisition of conventional expressions as a pragmalinguistic resource in Chinese as a foreign language. *The Modern Language Journal*, *102*(4), 732-757. https://doi.org/10.1111/modl.12517

Bardovi-Harlig, K., & Vellenga. H. E. (2012). The effect of instruction on conventional expressions in L2 pragmatics. *System, 40*(1), 77-89. https://doi.org/10.1016/j.system.2012.01.004

Bartning, I., Forsberg Lundell, F., & Hancock, V. (2012). On the role of linguistic contextual factors for morphosyntactic stabilization in high-level L2 French. *Studies in Second Language Acquisition*, *34*(2), 243–267. http://doi.org/10.1017/S0272263112000046

Beaulieu, S., Forsberg-Lundell, F., & Bejarano. J. (2022). Interlocutors' judgement of Lx conventional expressions: An exploratory study. *Intercultural Pragmatics, 19*(5), 597-620. https://doi.org/10.1515/ip-2022-5003

Bergeron, A., & Trofimovich, P. (2017). Linguistic dimensions of accentedness and comprehensibility: Exploring task and listener effects in second language French. *Foreign Language Annals*, *50*(3), 547-566. https://doi.org/10.1111/flan.12285

Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. Pearson Education.

Boers, F., Eyckmans, J., Kappel, J., Stengers, H., & Demecheleer, M. (2006). Formulaic sequences and perceived oral proficiency: Putting a lexical approach to the test. *Language Teaching Research, 10*(3), 245–261. https://doi.org/10.1191/1362168806lr195oa

Bygate, M. (2016). Sources, developments and directions of task-based language teaching. *The Language Learning Journal, 44*(4), 381-400. https://doi.org/10.1080/09571736.2015.1039566

Cargile, A. C., & Giles, H. (1998). Language attitudes toward varieties of English: An American Japanese context. *Journal of Applied Communication Research*, *26*, 338–356. https://doi.org/10.1080/00909889809365511

Conklin, K., & Schmitt, N. (2008). Formulaic sequences: Are they processed more quickly than nonformulaic language by native and nonnative speakers? *Applied Linguistics*, *29*(1), 72–89. https://doi.org/10.1093/applin/amm022

Crowther, D., Trofimovich, P., Saito, K., & Isaacs, T. (2018). Linguistic dimensions of L2 accentedness and comprehensibility vary across speaking tasks. *Studies in Second Language Acquisition, 40*, 443-457. http://doi.org/10.1017/S027226311700016X

Derwing, T. M., & Munro, M. J. (2009). Putting accent in its place: Rethinking obstacles to communication. *Language Teaching, 42*(4), 476-490. http://doi.org/10.1017/S026144480800551X

Derwing, T. M., Munro, M. J., & Thomson, R. I. (2007). A longitudinal study of ESL learners' fluency and comprehensibility development. *Applied Linguistics, 29*(3), 359-380. https://doi.org/10.1093/applin/amm041

Derwing, T. M., Rossiter, M. J., & Ehrensberger-Dow, M. (2002). "They speaked and wrote real good": Judgements of non-native and native grammar. *Language Awareness, 11*(2), 84–99. https://doi.org/10.1080/09658410208667048

Derwing, T. M., Rossiter, M. J., Munro, M. J., & Thomson, R. I. (2004). Second language fluency: Judgements on different tasks. *Language Learning, 45*(4), 655-679. https://doi.org/10.1111/j.1467-9922.2004.00282.x

Dörnyei, Z., Durow, V., & Zahran, K. (2004). Individual differences and their effects on formulaic sequence acquisition. In N. Schmitt (Ed.), *Formulaic sequences: Acquisition, processing, and use* (pp. 87-106). John Benjamins.

Edmonds, A. (2013). Une approche psycholinguistique des phénomènes phraséologiques : le cas des expressions conventionnelle. *Langages, 1*(1), 121-138. https://doi.org/10.3917/lang.189.0121

Forsberg Lundell, F., Lindqvist, C., & Edmonds, A. (2018). Productive collocation knowledge at advanced CEFR levels: Evidence from the development of a test for advanced L2 French. *The Canadian Modern Language Review, 74*(4), 627–649. https://doi.org/10.3138/cmlr.2017-0093

Hendriks, B. (2010). An experimental study of native speaker perceptions of non-native request modification in e-mails in English. *Intercultural Pragmatics, 7*(2), 221-255. https://doi.org/10.1515/iprg.2010.011

Isaacs, T., & Thomson, R. (2013). Rater experience, rating scale length, and judgments of L2 pronunciation: Revisiting research conventions. *Language Assessment Quarterly*, *10*(2), 135-159. https://doi.org/10.1080/15434303.2013.769545

Jiang, N., & Nekrasova, T. (2007). The processing of formulaic sequences by second language speakers. *The Modern Language Journal, 91*(3), 433-445. https://doi.org/10.1111/j.1540-4781.2007.00589.x

Kang, O., Thomson, R. I., & Moran, M. (2018). Empirical approaches to measuring the intelligibility of different varieties of English in predicting listener comprehension. *Language Learning, 68*(1), 115-146. https://doi.org/10.1111/lang.12270

Kasper, G., & Schmidt, R. (1996). Developmental issues in interlanguage pragmatics. *Studies in Second Language Acquisition, 18*(2), 149-169. https://doi.org/10.1017/S0272263100014868

Kecskes, I. (2000). Conceptual fluency and the use of situation-bound utterances. *Links and Letters, 7*, 145–161. https://raco.cat/index.php/LinksLetters/article/view/22722.

Kecskes, I. (2015). How does pragmatic competence develop in bilinguals? *International Journal of Multilingualism*, *12*(4), 419-434. http://dx.doi.org/10.1080/14790718.2015.1071018

Kennedy, S., & Trofimovich, P. (2008). Intelligibility, comprehensibility, and accentedness of L2 speech: The role of listener experience and semantic context. *The Canadian Modern Language Review, 64*(3), 459–489. https://doi.org/10.3138/cmlr.64.3.459

Kennedy, S., & Trofimovich, P. (2019). Comprehensibility: A useful tool to explore listener understanding. *The Canadian Modern Language Review, 75*(4), 275–284. https://doi.org/10.3138/cmlr.2019-0280

McGuire, M., & Larson-Hall, J. (2017). Teaching formulaic sequences in the classroom: Effects on spoken fluency. *TESL Canada Journal, 34*(3), 1-25. https://doi.org/10.18806/tesl.v34i3.1271

Millar, N. (2011). The processing of malformed formulaic language. *Applied Linguistics*, *32*(2), 129-148. https://doi.org/10.1093/applin/amq035

Nattinger, J. R., & DeCarrico, J. S. (1992). *Lexical phrases and language teaching*. Oxford University Press.

Nguyen, T. T. M. (2008). Criticizing in an L2: Pragmatic strategies used by Vietnamese EFL learners. The use of collocations by advanced learners of English and some implications for teaching. *Intercultural Pragmatics, 5(1)*, 41-66. https://doi.org/10.1515/IP.2008.003

Pellicer-Sánchez, A., & Boers, F. (2018). Pedagogical approaches to the teaching and learning of formulaic language. In A. Siyanova-Chanturia, & A. Pellicer-Sánchez (Eds.), *Understanding formulaic language: A second language acquisition perspective* (pp. 153-170). Routledge.

Prodromou, L. (2007). Bumping into creative idiomaticity. *English Today, 23*(1), 14–25. https://doi.org/10.1017/S0266078407001046

Ruivivar, J,. & Collins, L. (2019). Nonnative accent and the perceived grammaticality of spoken grammar forms. *Journal of Second Language Pronunciation, 5*(2), 269-293. https://doi.org/10.1075/jslp.17039.rui

Saito, K. (2020). Multi- or single-word units? The role of collocation use in comprehensible and contextually appropriate second language speech. *Language Learning, 70*(2), 548-588. https://doi.org/10.1111/lang.12387

Saito, K. (2021). What characterizes comprehensible and native-like pronunciation among English-as-a-second-language speakers? Meta-analyses of phonological, rater, and instructional factors. *TESOL Quarterly*, *55*(3), 1-35. https://doi.org/10.1002/tesq.3027

Saito, K., & Liu, Y. (2021). Roles of collocation in L2 oral proficiency revisited: Different tasks, L1 vs. L2 raters, and cross-sectional vs. longitudinal analyses. *Second Language Research*, *38*(3), 1–24. https://doi.org/10.1177/0267658320988055

Saito, K., Trofimovich, P., & Isaacs, T. (2015). Second language speech production: Investigating linguistic correlates of comprehensibility and accentedness for learners at different ability levels. *Applied Psycholinguistics, 37(2),* 217-240. https://doi.org/10.1017/S0142716414000502

Saito, K., Trofimovich, P., & Isaacs, T. (2017). Using listener judgements to investigate linguistic influences on L2 comprehensibility and accentedness: A validation and generalization study. *Applied Linguistics, 38*(4), 439-462. https://doi.org/10.1093/applin/amv047

Saito, K., Webb, S., Trofimovich, P., & Isaacs, T. (2016). Lexical profiles of comprehensible second language speech. The role of appropriateness, fluency, variation, sophistication, abstractness, and sense relations. *Studies in Second Language Acquisition, 38*(4), 677-701. http://doi.org/10.1017/S0272263115000297

Schleef, E. (2013). Glottal replacement of /t/ in two British capitals: Effects of word frequency and morphological compositionality. *Language Variation and Change, 25*(2), 201-223. https://doi.org/10.1017/S0954394513000094

Schmitt, N. (2010). Formulaic language. In N. Schmitt (Ed.), *Researching vocabulary: A vocabulary research manual* (pp. 117-146). Palgrave Macmillan.

Stengers, H., Boers, F., Housen, A., & Eyckmans, J. (2011). Does chunking foster chunk-uptake? In S. De Knop, F. Boers, & A. De Rycker (Ed.), *Fostering language teaching efficiency through cognitive linguistics* (pp. 99-117). Mouton de Gruyter.

Taguchi, N., Li, S., & Xion, F. (2013). Production of formulaic expressions in L2 Chinese: A developmental investigation in a study abroad context. *Chinese as a Second Language Research, 2*(1), 23-58. http://dx.doi.org/10.1515/caslar-2013-0021

Thomas, J. (1983). Cross-cultural pragmatic failure. *Applied Linguistics*, *4*(2), 91–112. https://doi.org/10.1093/applin/4.2.91

Trofimovich, P., Isaacs, T., Kennedy, S., & Tsunemoto, A. (2022). Speech comprehensibility. In T.M. Derwing, M.J. Munro, & R. I. Thomson (Eds.), *The Routledge handbook of second language acquisition and speaking* (pp. 174-187). Routledge Handbooks.

Wood, D. (2015). *Fundamentals of formulaic language: An introduction*. Bloomsbury.

Wray, A. (2002). *Formulaic language and the lexicon.* Cambridge University Press

Wray, A., & Perkins, M. (2000). The functions of formulaic language: An integrated model. *Language and Communication, 20*(1), 1-28. https://doi.org/10.1016/S0271-5309(99)00015-4.

Yi, W. (2018). Statistical sensitivity, cognitive aptitudes, and processing of collocations. *Studies in Second Language Acquisition, 40*(4), 831-856. https://doi.org/10.1017/S0272263118000141