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► **To cite this version:**

Aarnes Gudmestad, Amanda Edmonds. Categorical and variable mood distinction in Hexagonal French: Factors characterizing use for native and non-native speakers. *Canadian Journal of Applied Linguistics*, 2015, 18 (1), pp.107-130. hal-03067512

**HAL Id: hal-03067512**

**<https://hal.science/hal-03067512>**

Submitted on 23 Feb 2021

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PRE-PRINT VERSION

Gudmestad, A., & Edmonds, A. (2015). Categorical and variable mood distinction in Hexagonal French : Factors characterizing use for native and non-native speakers. *Canadian Journal of Applied Linguistics*, 18(1), 107-130.

Categorical and variable mood distinction in Hexagonal French:  
Factors characterizing use for native and non-native speakers

Abstract

Although grammars and teaching materials generally present the subjunctive-indicative contrast as being meaningful and categorical, much evidence exists to suggest that mood distinction in modern Hexagonal French is variable, with both the indicative and the subjunctive appearing in certain contexts without an apparent change in meaning. In the current study, mood use among native speakers (NSs) and three groups of non-native speakers (NNSs) will be examined using two elicitation tasks. In particular, variationism will be adopted in order to explore the role played by a sample of linguistic and extra-linguistic factors in the use of verbal moods by NSs and NNSs of French in France. Results indicate that NSs show variable mood use with approximately two thirds of the triggers examined and that the factor of semantic category was a significant predictor of mood use patterns on variable triggers for NSs and NNSs.

Introduction

Despite prescriptive accounts to the contrary, research on the subjunctive-indicative contrast in Romance languages has shown mood choice to be variable. The majority of this research has concentrated on Spanish (e.g., Gudmestad, 2010; Silva-Corvalán, 1994) and Canadian French (e.g., Poplack, 1992; Poplack, Lealess, & Dion, 2013) and has documented the fact that, for native speakers' (NSs) of these languages, the use of verbal moods is not categorical in all contexts, but rather characterized by a range of linguistic and extra-linguistic factors. Although Hexagonal French has received much less attention, the variable nature of mood distinction in this variety of French has been highlighted by authors such as Blanche-Benveniste (2010) and O'Connor DiVito (1997). For the time being, no systematic investigation of mood distinction in Hexagonal French within a variationist framework has been undertaken. Thus, the first aim of

the current project is to further our understanding of variable mood use in NS Hexagonal French by exploring the role played by a sample of linguistic and extra-linguistic factors in the use of verbal moods.

For the second aim of this project, we examine how nonnative speakers (NNSs) of Hexagonal French living in France fare with the subjunctive-indicative contrast in their second language (L2). We presume that such NNSs are exposed to variable input, and we seek to determine if and how the same linguistic and extra-linguistic factors targeted in our NS analysis modulate how three groups of NNSs at different proficiency levels use verbal moods.

### Background

Our study draws upon several strands of research, each of which is presented in this section. On the one hand, we have chosen to work within the variationist approach, first developed by Labov (1966) within sociolinguistics. After giving a concise overview of this approach, we discuss the system of mood use in modern French, which allows us to highlight the variable nature of a phenomenon often presented as categorical in grammars and teaching materials. Finally, we present the existing literature on L2 mood distinction most relevant to the present investigation.

#### *Variationism*

Two tenets of the variationist approach are that language is ever evolving and that variation is inherent in language. Variationism recognizes that certain linguistic phenomena, called *linguistic variables*, can be realized by more than one form, called *variants*. Traditionally, the two (or more) variants for any given linguistic variable are taken to be functionally equivalent in the context of the linguistic variable. While variationism was originally applied to phonological variables, it has also been employed extensively to study morphosyntax, in part because “distinctions in referential value or grammatical function among different surface forms can be

neutralized in discourse” (Sankoff, 1988: 153). For example, mood distinction is the linguistic variable under investigation in the current study, and its variants are the indicative or the subjunctive used in the same context: *après que tu viens* vs. *après que tu viennes* (see Poplack et al., 2013: 162-163 for a discussion of mood distinction as a linguistic variable). Variationism aims to identify the internal and external factors that influence frequency of use of a given variant “in an attempt to account for the status of the variant in the speech community, its usefulness as an indication of linguistic change, and its position and shape in the rule system of the individual” (Preston, 1989: 194). Such research generally uses quantitative methods in order to analyze the influence of linguistic and extra-linguistic factors on the use of the linguistic variable in relatively large samples of oral production (Tagliamonte, 2012).

More recent research has extended this approach, both in terms of research methodologies and types of speakers. With respect to research methodology, the analysis of large, generally oral, corpora has dominated this field. However, variationist linguists now recognize the potential contribution of diverse tasks to the study of variation (cf. Geeslin, 2010). This development is particularly important for linguistic variables, such as the subjunctive-indicative contrast in French, that are relatively infrequent and for which a variety of different tasks may be necessary in order to see the spectrum of occurrences.

In terms of speaker populations, the variationist approach has been successfully extended to the study of L2 acquisition (cf. Tarone, 2007). Within the field of second language acquisition (SLA), variationism has contributed important descriptive and explanatory information about how NNSs acquire a L2 (cf. Gudmestad, 2012). Descriptive observations have revealed generalizations about the developmental trajectories that learners follow. For example, analyses of both frequency of use and predictors of use have enabled researchers to identify complex

details about the changes in interlanguage that occur at various points along the path of acquisition, highlighting, among other observations, the non-linear nature of SLA (Gudmestad, 2014). Researchers have also sought to provide explicative models for the results from L2 variationist studies, with Preston's (2000) psycholinguistic model being the most well-known. This model consists of three levels, each of which accounts for why learners use one variant instead of another. Level 1 constrains social variation, which includes extra-linguistic factors. Level 2 governs linguistic variation, which has been shown to be paramount to L2 development (cf. Preston, 1989). Factors at this level pertain to language itself. For example, with regard to mood distinction in Canadian French, the linguistic factor concerning the presence or absence of *que* has been found to be important for the verbal mood that speakers use (Poplack et al., 2013). Level 3 variation is conditioned by time; linguistic and extra-linguistic factors may impact interlanguage differently during acquisition (e.g., Tarone & Liu, 1995).

### *Mood Use in French*

*Marking mood distinction.* In modern French, many of the present subjunctive forms are non-distinct with present-indicative forms. Except for the small class of verbs presenting a suppletive subjunctive stem (e.g., *faire*, *être*), the present subjunctive is formed with the present-indicative third-person plural stem.<sup>1</sup> To the subjunctive stem are added the orthographic subjunctive endings, shown in (1).

- |     |                               |                            |
|-----|-------------------------------|----------------------------|
| (1) | Subjunctive endings in French |                            |
|     | First person singular: -e     | First person plural: -ions |
|     | Second person singular: -es   | Second person plural: -iez |
|     | Third person singular: -e     | Third person plural: -ent  |

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<sup>1</sup> This description must be nuanced for those verbs that have two stems in the present (e.g., *appeler*, *venir*), for which the third-person plural stem is used in the formation of the subjunctive for *je*, *tu*, *il/elle/on* and *ils/elles* (*il faut que tu appelles*; *il faut que je vienne*), whereas the present indicative stem found in the first person plural is the base for the subjunctive forms with *nous* and *vous* (*il faut que vous appelez*; *il faut que nous venions*).

The endings for the third-person singular and plural are the same as what Valdman (1976) refers to as Set A endings and are used with a large number of verbs in the present indicative. The first- and second-person plural endings are distinct from the present indicative for all verbs but are the same as the endings used for the *imparfait*. The fact that the endings for the French subjunctive are not specific to this mood means that distinctively marking the subjunctive will be problematic, unless the subjunctive stem for a given verb is different from the stem used for the indicative. In reality, indicative and subjunctive forms are distinct for only a minority of cases in both written and oral French.<sup>2</sup> McManus, Tracy-Ventura, Mitchell, Richard, and Romero de Mills (2014) speculate that this may explain, at least in part, why there are relatively few studies looking into mood distinction in French.

*Prescriptive norms for mood distinction.* If scholars agree as to the formation of the subjunctive, there is less consensus in describing when the French subjunctive is to be used. This difficulty is most certainly why Confais (1990: 231) characterized the subjunctive as “le morphème le plus redoutable pour les linguistes, mais aussi pour les enseignants du français et les auteurs de manuels scolaires.” That said, it is clear that the subjunctive in modern French appears almost exclusively in subordinate clauses. Beyond this uncontroversial detail, scholars have spent considerable time attempting to identify which types of main clauses trigger this mood in French. For example, in Poplack et al.’s (2013) study of 163 grammars published over the course of five centuries, all prescriptive treatments of the subjunctive present in the grammars were examined and the authors concluded that

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<sup>2</sup> The indicative-subjunctive opposition is distinctive in slightly more written forms than oral ones. That said, the written forms for the French present subjunctive and present indicative are identical for most of what Valdman (1976: 168) refers to as one-stem verbs, which includes regular verbs ending in *-er* (e.g., *donner*), but also a small number of verbs with other endings (e.g., *ouvrir*, *cueillir*). For these verbs, the present subjunctive and indicative forms are identical for *je*, *tu*, *il/elle/on* and *ils/elles*. All remaining verbs, including a small number of one-stem verbs (e.g., *courir*, *conclure*), have distinctive present indicative and subjunctive written forms.

[p]rescriptive discourse has always taken two (seemingly conflicting) directions: the major one deals with identifying the class of lexical *governors* that require or prohibit the subjunctive in the embedded clause, usually taking the form of lists, and the other with the semantic *readings* that the subjunctive expresses. (144-145)

In other words, prescriptive grammars have most often provided lists of lexical triggers (what Poplack et al. refer to as governors) or have tried to establish categories of such triggers based on semantic values (e.g., verbs of volition, uncertainty, etc.). In the review of their collection of grammars, the researchers counted no fewer than 785 subjunctive triggers and 76 meanings associated with the subjunctive. Such lists, which are familiar to learners of French as a L2 (Sanctobin & Verlinde, 2000), generally present the triggers or semantic classes as categorically requiring the subjunctive. However, Poplack et al. found very little agreement among grammars in their identification of triggers and/or categories, suggesting on the one hand that the set of subjunctive triggers is not fixed and on the other that defining the semantic contribution of the subjunctive has proven problematic. This lack of consensus may reflect the inherent variability in mood use in French, a possibility which finds support in corpus data.

*Mood distinction as a variable structure.* When one looks at corpus data, there is reliable evidence that mood use in modern Canadian and Hexagonal French is variable for NSs (e.g., Comeau, 2011; Laurier, 1989; O'Connor DiVito, 1997; Poplack, 1990, 1992, 2001; Poplack et al., 2013; Sand, 2003). For example, Blanche-Benveniste (2010: 52) provides specific examples from her oral corpus of Hexagonal French of indicative forms where we might expect subjunctives:

- (2) *on prend de l'argile pour pas que la dynamite s'en va*  
*je suis heureux qu'il y a une pièce de plus*  
*tu fais des longues études – tu travailles tu t'arrêtes pas – pour que tu as un bon métier*

In her studies on Canadian French, Poplack (1990, 1992, 2001) and Poplack et al. (2013) adopted the variationist approach in order to understand which linguistic and extra-linguistic

factors influence mood choice for NSs of Canadian French, a variety of French that is in contact with English. In these studies, the factors tested were both semantic and structural and were hypothesized to reflect different claims concerning the subjunctive. For example, many prescriptive accounts of this mood state that it conveys a non-factual reading. For this reason, other indicators of non-factual readings (e.g., clause type: affirmative vs. negative, question) were coded in order to determine whether these other indicators coincided with subjunctive use. In the end, factors found to be significant predictors of mood choice included the tense of the matrix verb, presence or absence of *que*, the semantic category of the trigger, and a factor that examines the morphological form and frequency of the mood-choice verb. According to the authors, the significance of the factor of semantic category is a byproduct of the most important constraint on subjunctive use, which is a lexical effect. To be more specific, Poplack et al. (2013) found that three governors – *falloir*, *vouloir* and *aimer* – made up three-fourths of the potential subjunctive triggering contexts in the three corpora they examined. They also found that the subjunctive morphology was most often found with four verbs (*aller*, *avoir*, *être*, *faire*). The strong association of the subjunctive with certain triggers (notably *falloir*) and with certain embedded verbs has also been identified by O'Connor DiVito (1997) and Lepetit (2001). These results suggest that mood distinction may be largely lexically determined in modern French.

#### *Mood Use in SLA*

Research on mood use among L2 learners of French has addressed issues such as the impact of study abroad, semantic categories, and syntactic contexts on mood use (e.g., Ayoun, 2013; Howard, 2008, 2012; McManus et al., 2014). The most robust finding from these studies indicates that the indicative-subjunctive contrast is generally acquired late (cf. Bartning & Schlyter, 2004); for both Howard and McManus et al., for example, advanced university learners



were found to still be in the process of acquiring this distinction. This conclusion is based largely on the observation that such learners seem to use the subjunctive in a smaller range of contexts than do NSs. However, it has generally been found that both NSs and NNSs use relatively few subjunctive forms in both oral and written production, a finding which suggests that more controlled data-elicitation tasks may be useful in the study of the indicative-subjunctive contrast in French (cf. Ayoun, 2013). In addition to showing that the subjunctive is late acquired, previous L2 research on mood distinction in French has demonstrated a lexical effect with the subjunctive, reminiscent of what is reported for NS French. In other words, use of the subjunctive varies most notably as a function of the triggering expression (Ayoun, 2013; Howard, 2008). For instance, Howard found that his learners were most likely to use the subjunctive in French with the trigger *il faut que*.

While previous research has analyzed data from a variety of tasks (e.g., sociolinguistic interview, grammaticality judgment, argumentative writing, sentence completion), what they all have in common is the use of an error analysis to assess mood distinction. As research shows that NSs of French do not use verbal moods categorically in all contexts, it is reasonable to assume that learners receive variable input. Therefore, the target of acquisition is one in which learners also vary their use of verbal moods in certain contexts (cf. Geeslin, 2005). These observations mean that analyses based on obligatory contexts, as is generally the case in error analyses, are not suitable for evaluations of targetlike use of variable structures, as this would imply judging NNSs according to an idealized categorical norm, while NSs show variation. For this reason, a data analysis that recognizes the variable nature of verbal moods is particularly necessary, and it is this type of analysis that we aim to provide in the current project.

### *Research Questions*

In this project, we set out to explore native and nonnative mood use in Hexagonal French using two elicitation tasks. The same 30 lexical triggers were included in each task. Thus, our first research question focuses on the contribution of each of these triggers and asks whether NSs and three groups of NNSs at different proficiency levels show categorical or variable mood use with each trigger. In the design of our two tasks, three linguistic factors (semantic category, hypotheticality, and time reference) and two extra-linguistic factors (task and participant group) were controlled in order to examine their potential contribution to mood use. Our second research question seeks to determine which of these linguistic and extra-linguistic factors characterize mood use for NSs and NNSs on the two elicitation tasks. We are, moreover, interested in examining two different models of NNS variable mood use. The first concerns how they vary mood use on those triggers found to be variable for NSs, whereas the second looks at how they vary mood use for triggers on which NSs show categorical mood use.

### The Current Study

#### *Method*

*Participants.* Thirty-one NSs and 69 NNSs of French were living in the same community in the southwest of France at the time of data collection and were students at the same university. Working with participants living in the same target language community allows us to be fairly certain that the presumably variable input to which the different participants were exposed was similar, a factor which is important in variationist studies (cf. Gudmestad, 2012). The NNSs were placed into one of three levels – B1, B2, or C – of the Common European Framework of Reference for Languages (Council of Europe, 2001) after either completing an entrance exam for a university-based language center in France or having been accepted into a degree program at that same university. Level B1, also known as the Threshold level, corresponds to level at which

the learner becomes an independent user of the L2. Level B2 (Vantage level) is the minimum required level to be able to enroll in most degree programs at French universities. Level C (Proficient user) is the highest level in the Framework, and certain degree programs (for example, literature, French as a foreign language) require this level of foreign students. Note that the 69 NNSs come from a variety of linguistic backgrounds (15 different first languages are represented), and all were enrolled in either intensive French classes (15 to 20 hours of French instruction per week) or in a degree program at the same French university. Learners in level B1 (henceforth Group 1) ranged in age from 19 to 58 ( $M = 25.1$  years); 17 were women and seven were men (one participant did not provide age and sex). They had studied French formally between three months and 12 years and had spent between two and 30 months in a French-speaking country. Learners in level B2 (Group 2) had an average age of 24.8 (range: 19-50 years); 24 were women and four were men. They had studied French formally between two and 21 years and had spent between one and 36 months in a French-speaking country. Learners in level C (Group 3) ranged in age from 19 to 46 ( $M = 25.4$ ); 13 were women and three were men. They had studied French formally between six weeks and 34 years and had spent between one and 336 months in a French-speaking country. In addition to the three groups of NNSs, 31 NSs of French participated in this study. These students were either Master's students in Foreign Language Education or English or undergraduate students in English. Their average age was 23.2 (range: 19-52 years); 26 were women and five were men. The analysis of this NS group is important for our study for two reasons: It enables us to begin to examine the factors that condition variable mood use in Hexagonal French and it serves as an empirical benchmark for assessing targetlike use of a variable structure in our NNS groups (cf. Gudmestad, 2014).

*Data collection.* The mood-use data come from two written instruments: a contextualized-clause-elicitation task (Task 1) and contextualized-verb-elicitation task (Task 2). The first item from each task is provided in Figure 1.

|  |
|--|
| <p>TASK 1</p> <p>1. Claire, Pierre et Thomas sont trois étudiants, et sont colocataires. Ils viennent de revenir de vacances et ils se voient dans un restaurant italien pour parler de ce qu'ils ont fait. Thomas a passé trois semaines très agréables dans le Colorado avec sa famille -- ils ont fait du ski. En parlant de son voyage, Thomas dit:<br/>«Je suis content que _____.»</p> <p>TASK 2</p> <p>1. Anne et Paul, deux étudiants américains, organisent un voyage en France pour l'été prochain. Ils parlent de comment serait leur voyage s'ils étaient riches. En pensant au voyage idéal, Anne dit:<br/>« Je pense qu'on _____ (faire) une réservation dans un hôtel cinq étoiles. »</p> |
|--|

Figure 1. The first items on Task 1 and on Task 2.

These tasks consisted of a series of items (30 segments per task) that built on a single story in French. Every segment of Task 1 was followed by the beginning part of a sentence that functioned in the story as dialogue. Participants were asked to complete the sentence with a phrase that made sense in the story. Each item of Task 2 was followed by a sentence that was integrated into the story as dialogue. In the mood-choice context of the sentence, an infinitive was given in parentheses; the participants provided the verb form they felt was appropriate. These tasks were adapted from two oral-elicitation tasks designed to investigate mood use in Spanish (Gudmestad, 2010, 2012). After completing these tasks, the participants completed a background questionnaire in which they provided information on their language experiences.

*Data coding.*<sup>3</sup> Each participant had the potential to provide 30 data points (or tokens) for each of the two tasks. We defined a token as a verb form appearing in a mood-choice context. A

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<sup>3</sup> We thank an anonymous reviewer for pointing out the complexity of analyzing written data because it raises issues about orthographic knowledge. We agree that this is important and that it speaks to the challenges of coding written data but leave it for future research where it can be investigated thoroughly.

mood-choice context (the variable context) was operationalized as a verb produced in a subordinate clause following a matrix clause conveying a meaning of one of the semantic categories under investigation (see below). The dependent variable was the verbal mood used in a mood-choice context: subjunctive or indicative. Only tokens that were unambiguously indicative or subjunctive were included in this analysis (i.e., all *-er* verb tokens were removed).<sup>4</sup> Our dataset includes 2093 tokens from Task 1 and 2542 tokens from Task 2.

This study was designed to investigate several independent variables as factors hypothesized to characterize mood choice in French. For the first factor – lexical trigger – the response patterns associated with each of the 30 lexical triggers tested (shown in [3]) were investigated.<sup>5</sup> Our interest in this variable is motivated by work suggesting that individual vocabulary items (or lexical triggers, in our project) may play a role in the acquisition of morphosyntactic structures (e.g., Zyzik & Gass, 2008). As already pointed out, research on native and nonnative mood use in French has found evidence of such lexical effects (Howard, 2008; Poplack, 1992, 2001). In addition to lexical triggers, the current project investigated the impact of three linguistic factors and two extra-linguistic factors on mood choice. Linguistic factors included semantic category, hypotheticality, and time reference. The factor of semantic category was included because prescriptive accounts of the subjunctive often have recourse to semantic explanations (see Poplack et al., 2013) and semantic categories are routinely used in order to explain the subjunctive to instructed L2 learners (Sanctobin & Verlinde, 2000). In the current project, five semantic categories represented by six lexical triggers each were tested:

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<sup>4</sup> All finite verbs that could be coded unambiguously for the subjunctive or the indicative were included in the analysis. This means that the dataset consisted of various tense and aspect forms (e.g., imperfect, which is an indicative form). Analyses of the use of these forms are left for future research.

<sup>5</sup> We refrain from stating whether individual lexical triggers prescriptively take the subjunctive or indicative since Poplack et al. (2013) demonstrated that the reporting of prescriptive norms for individual lexical triggers was inconsistent across grammars. Additionally, because these tasks are based on those in Gudmestad (2012), we selected these lexical triggers for continuity with the variables and the storyline in each task.

(3) Semantic categories and lexical triggers tested

Assertion (expressions of certainty): *croire / être clair / être évident / penser / savoir / sembler*

Comment (expressions of evaluation or emotion): *aimer / être bien / être content / être ravi / faire plaisir / importer*

Temporality (adverbial conjunctions of time): *après / avant / dès / jusqu'à ce / pendant / quand*

Uncertainty (expressions of doubt): *douter / se pouvoir / ne pas croire / ne pas penser / peut-être / possible*

Volition (expressions of hope and desire): *espérer / insister / préférer / recommander / souhaiter / vouloir*

The two additional linguistic factors of time reference and hypotheticality were manipulated at the level of the discourse. The time-reference categories were past-, present- and future-time contexts, and were tested by 10 items on each task. The variable of hypotheticality was divided into three categories, including non-hypothetical, non-past hypothetical, and past hypothetical contexts, each of which was coded into 10 items per task. We included these factors in the current study because of their connection to the irrealis/realis distinction. A common way to distinguish the subjunctive and indicative is to link the former with irrealis and the latter with realis (cf. Palmer, 2001). Similar to Poplack et al. (2013), who examined the irrealis/realis distinction with their factor 'reality of the predication', we opted to manipulate contexts along the irrealis-realism dimension by modifying hypotheticality and time reference. This operationalization has the advantage of being easily replicable in future research. Realism was represented by contexts that were both past-time or present-time and non-hypothetical, because they have happened or are happening in the lives of the stories' characters. In contrast, hypothetical (past or non-past) contexts and future-time contexts marked irrealis because they were not realized states or events at the moment of speaking at the point in the story where they were uttered. For examples of the coding of these three linguistic factors, we refer the reader back to the two task items shown in Figure 1. For the first item from Task 1, the semantic

category of the trigger is comment (*être content que*) and the discourse-level factors show past-time reference and non-hypotheticality. As for item 1 from Task 2, here the semantic category of the trigger is assertion (*penser que*), and the context situates the time reference for the discourse in the future. The situation described is coded as non-past hypothetical.

Finally, two extra-linguistic factors were examined, the first of which being task. This factor enabled us to identify possible differences between the two elicitation tasks. We included this factor in the analysis because research has demonstrated that language use varies according to data-elicitation task (cf. Geeslin, 2010). Lastly, we examined the contribution of participant group. This factor corresponded to the group of NSs and the three groups of L2 speakers. We examined each participant group separately for each phase of the analysis. This variable served to examine L2 development using cross-sectional data and to make assessments of target-like use by comparing L2 use with that of NSs.

*Data analysis.* The data analysis consisted of four steps. First, we conducted cross-tabulations to determine the lexical triggers that exhibited categorical and variable mood use for each participant group. We made comparisons among the participant groups, comparing the NNS groups to the NSs, whose results served as a benchmark for targetlike use. Steps 2 through 4 made use of binary logistic regressions in order to analyze predictors for variable use. With this statistical test we were able to examine multiple independent variables jointly, so as to determine which variables predict mood use simultaneously for each participant group. If a variable did not improve the predictive power of mood use, it was not included in the model produced by the regression. Our first set of regressions (Step 2) looked only at nonnative data, as we focused on the subset of the data that included lexical triggers for which NS use was categorical and L2 use was variable. For each L2 group we performed a first set of binary logistic regressions in order to

identify the predictors of mood use on triggers found to be categorical for NSs. However, because certain semantic categories were only comprised of one lexical trigger, the factor of semantic category had to be excluded from this step of the analysis. For the third step of the analysis, we focused on the subset of the data that consisted of the triggers for which NSs exhibited variable mood use; L2 use was also variable with these triggers. We conducted a second set of binary logistic regressions, this time looking at each L2 group and the NS group. In order to make comparisons between this phase of the analysis and the previous one, we omitted semantic category from the analysis. Fourth, for each participant group, we performed a final set of regressions on the dataset consisting of NS variable triggers, this time including semantic category in the analysis. During phases three and four, we compare the L2 groups to each other and to the NS group. The former enables us to make observations about L2 development and the latter gives us information about targetlike use. Furthermore, for each set of regression models, we ran cross-tabulations to examine the relationship between mood use and each independent variable that was shown to be a significant predictor of mood use for each participant group by the logistic regression.<sup>6</sup>

### *Results*

NSs contributed a total of 1640 occurrences to this analysis, whereas the NNS groups ranged from 860 tokens for Group 3 to 1457 for Group 2, with Group 1 lying in between with 1148 tokens. Overall subjunctive use was highest among our NSs (53.3%), followed by Group 2 (44.7%), Group 3 (36.9%), and, finally, Group 1 (34.1%).

*Lexical triggers: Categorical versus variable use.* For the first step of our analysis, we examined the results for each of the 30 lexical triggers in order to identify which were used by

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<sup>6</sup> Although GoldVarb is the application commonly used in sociolinguistics to perform statistical analyses, we chose to use the Statistical Package for the Social Sciences (SPSS). SPSS enables us to perform the same kind of analysis and has the advantage of being employed by researchers in fields outside of sociolinguistics, namely SLA.



our group of NSs categorically with one mood and which were used with both. Tables 1 and 2 show that NSs used the indicative categorically with six triggers and the subjunctive categorically with five. When we examined the nonnative patterns for these same triggers, it became clear that only Level 3 exhibited categorical use with any trigger, insofar as they produced the indicative 100 percent of the time with *penser* and *savoir*. All other use of verbal moods with the triggers under investigation was variable for each L2 group. For the six triggers for which all NSs categorically supplied the indicative (Table 1), we observed that indicative suppliancy by NNSs ranged from 52.8 to 93.8 percent for Group 1, from 56.9 to 98.1 percent for Group 2 and from 80.6 to 100 percent for Group 3. As for the five triggers resulting in categorical subjunctive use from the natives (Table 2), NNS subjunctive use ranged from 36.4 to 50 percent for Group 1, from 51.2 to 76.7 percent for Group 2, and from 40.7 to 77.8 percent for Group 3.

NSs as a group used both verbal moods with the remaining 19 triggers, of which five were used with the subjunctive less than 10% of the time (Table 3), three were used with the subjunctive between 35% and 66% of the time (Table 4), and 11 were used with the subjunctive between 84% and 98% of the time (Table 5). Each L2 group exhibited variable mood use for these triggers as well. However, their range of use was smaller than that of the NSs, with most triggers falling into the middle frequency band for subjunctive use. Whereas the five variable triggers resulting in the lowest subjunctive use by NSs (Table 3) also resulted in relatively low subjunctive use on the part of the NNSs (less than 30% for Groups 1 and 2 and less than 15.6% for Group 3), the majority of the remaining 14 triggers fall between 35 and 66 percent subjunctive use for each of the three groups (12 triggers for Group 1, 9 for Group 2, and 11 for

Table 1. Frequency of Subjunctive Use among Triggers that Show Categorical Indicative Use among NSs

| Trigger          | Semantic category | Group 1 |         |       | Group 2 |         |       | Group 3 |         |       | NSs     |         |       |
|------------------|-------------------|---------|---------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|
|                  |                   | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total |
| <i>croire</i>    | assertion         | 13.2    | 5       | 38    | 14.9    | 7       | 47    | 3.1     | 1       | 32    | 0       | 0       | 44    |
| <i>espérer</i>   | volition          | 47.2    | 17      | 36    | 23.5    | 12      | 51    | 15.6    | 5       | 32    | 0       | 0       | 45    |
| <i>penser</i>    | assertion         | 10.9    | 5       | 46    | 17.0    | 9       | 53    | 0       | 0       | 31    | 0       | 0       | 46    |
| <i>peut-être</i> | uncertainty       | 34.1    | 14      | 41    | 45.1    | 23      | 51    | 19.4    | 6       | 31    | 0       | 0       | 45    |
| <i>quand</i>     | temporality       | 13.8    | 4       | 29    | 5.0     | 2       | 40    | 8.7     | 2       | 23    | 0       | 0       | 37    |
| <i>savoir</i>    | assertion         | 6.2     | 3       | 48    | 1.9     | 1       | 53    | 0       | 0       | 32    | 0       | 0       | 45    |

Table 2. Frequency of Subjunctive Use among Triggers that Show Categorical Subjunctive Use among NSs

| Trigger           | Semantic category | Group 1 |         |       | Group 2 |         |       | Group 3 |         |       | NSs     |         |       |
|-------------------|-------------------|---------|---------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|
|                   |                   | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total |
| <i>aimer</i>      | comment           | 42.9    | 15      | 35    | 64.3    | 27      | 42    | 40.7    | 11      | 27    | 100     | 42      | 42    |
| <i>avant</i>      | temporality       | 37.5    | 9       | 24    | 57.5    | 23      | 40    | 70.4    | 19      | 27    | 100     | 29      | 29    |
| <i>jusqu'à ce</i> | temporality       | 36.4    | 12      | 33    | 51.2    | 21      | 41    | 46.4    | 13      | 28    | 100     | 33      | 33    |
| <i>préférer</i>   | volition          | 50.0    | 16      | 32    | 76.7    | 33      | 43    | 77.8    | 21      | 27    | 100     | 38      | 38    |
| <i>vouloir</i>    | volition          | 46.9    | 15      | 32    | 71.8    | 28      | 39    | 50.0    | 11      | 22    | 100     | 35      | 35    |

Table 3. Frequency of Subjunctive Use among Variable Triggers that Show Less Than 10% Subjunctive Use among NSs

| Trigger        | Semantic category | Group 1 |         |       | Group 2 |         |       | Group 3 |         |       | NSs     |         |       |
|----------------|-------------------|---------|---------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|
|                |                   | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total |
| <i>clair</i>   | assertion         | 17.5    | 7       | 40    | 18.4    | 9       | 49    | 3.2     | 1       | 31    | 2.2     | 1       | 46    |
| <i>dès</i>     | temporality       | 23.4    | 11      | 47    | 30.0    | 15      | 50    | 3.1     | 1       | 32    | 2.2     | 1       | 45    |
| <i>pendant</i> | temporality       | 17.1    | 6       | 35    | 15.2    | 7       | 46    | 11.5    | 3       | 26    | 2.5     | 1       | 40    |
| <i>évident</i> | assertion         | 19.6    | 9       | 46    | 16.0    | 8       | 50    | 6.7     | 2       | 30    | 4.4     | 2       | 45    |
| <i>sembler</i> | assertion         | 27.9    | 12      | 43    | 28.6    | 14      | 49    | 15.6    | 5       | 32    | 6.5     | 3       | 46    |

Table 4. Frequency of Subjunctive Use among Variable Triggers that Show Subjunctive Use between 35-66% among NSs

| Trigger              | Semantic category | Group 1 |         |       | Group 2 |         |       | Group 3 |         |       | NSs     |         |       |
|----------------------|-------------------|---------|---------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|
|                      |                   | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total |
| <i>ne pas croire</i> | uncertainty       | 45.2    | 19      | 42    | 67.3    | 35      | 52    | 60.0    | 18      | 30    | 35.6    | 16      | 45    |
| <i>ne pas penser</i> | uncertainty       | 34.9    | 15      | 43    | 57.1    | 28      | 49    | 42.9    | 12      | 28    | 39.5    | 17      | 43    |
| <i>après</i>         | temporality       | 47.4    | 18      | 38    | 37.0    | 17      | 46    | 25.9    | 7       | 27    | 65.9    | 29      | 44    |

Table 5. Frequency of Subjunctive Use among Variable Triggers that Show Subjunctive Use between 84-98% among NSs

| Trigger              | Semantic category | Group 1 |         |       | Group 2 |         |       | Group 3 |         |       | NSs     |         |       |
|----------------------|-------------------|---------|---------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|
|                      |                   | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total | % Subjc | # Subjc | Total |
| <i>il se peut</i>    | uncertainty       | 50.0    | 15      | 30    | 65.2    | 30      | 46    | 46.4    | 13      | 28    | 84.6    | 33      | 39    |
| <i>douter</i>        | uncertainty       | 36.4    | 16      | 44    | 69.4    | 34      | 49    | 61.3    | 19      | 31    | 92.3    | 36      | 39    |
| <i>bien</i>          | comment           | 27.5    | 11      | 40    | 48.8    | 20      | 41    | 37.0    | 10      | 27    | 93.8    | 30      | 32    |
| <i>recommander</i>   | volition          | 60.0    | 24      | 40    | 59.1    | 26      | 44    | 62.5    | 15      | 24    | 94.1    | 32      | 34    |
| <i>souhaiter</i>     | volition          | 51.0    | 25      | 49    | 73.5    | 36      | 49    | 58.6    | 17      | 29    | 94.9    | 37      | 39    |
| <i>possible</i>      | uncertainty       | 42.9    | 15      | 35    | 63.3    | 31      | 49    | 50.0    | 15      | 30    | 95.5    | 42      | 44    |
| <i>ravi</i>          | comment           | 28.9    | 11      | 38    | 70.5    | 31      | 44    | 50.0    | 13      | 26    | 97.0    | 32      | 33    |
| <i>faire plaisir</i> | comment           | 36.4    | 12      | 13    | 51.2    | 22      | 43    | 56.7    | 17      | 30    | 97.2    | 35      | 36    |
| <i>importer</i>      | comment           | 35.0    | 14      | 40    | 68.6    | 35      | 51    | 51.7    | 15      | 29    | 97.4    | 37      | 38    |
| <i>insister</i>      | volition          | 63.3    | 19      | 30    | 79.5    | 35      | 44    | 85.2    | 23      | 27    | 97.6    | 41      | 42    |
| <i>content</i>       | comment           | 43.9    | 18      | 41    | 59.6    | 31      | 52    | 71.0    | 22      | 31    | 97.8    | 44      | 45    |

Group 3). This indicates that of the 30 triggers tested, few result in high subjunctive use for any of the three NNS groups, whereas the majority of variable triggers for NSs fall into this category.

*Understanding variation.* As mentioned in the previous section, NSs showed categorical mood use with 11 triggers. However, Groups 1 and 2 showed variable mood use with all 11 of these triggers and Group 3 with 9 of them. Thus, for the second step of our analysis, we set out to examine the factors that condition variability in mood use for the NNSs with triggers that are not variable for NSs. In order to do so, we performed a binary forward stepwise logistic regression on the data for each L2 group. Because at this stage of the analysis we examined only a small portion of the data, some of the semantic categories were only made up of one lexical trigger (comment, uncertainty, and for Group 3 assertion). For this reason, time reference, hypotheticality, and task, but not semantic category, were included in the analysis. The details of the findings for the three regression models are available in Tables 6 and 7. These tests revealed that nonnative variable mood use on NS categorical triggers was predicted by hypotheticality for Group 1, whereas hypotheticality, time reference, and task jointly influenced Group 2's use, and hypotheticality and time reference predicted use for Group 3.

Table 6. *Significant Predictors of L2 Mood Use for NS Categorical Triggers*

| Variable        | Group 1 | Group 2 | Group 3 |
|-----------------|---------|---------|---------|
| Time reference  |         | X**     | X*      |
| Hypotheticality | X*      | X**     | X**     |
| Task            |         | X*      |         |

Note. X = variable included in the model, \* $p < 0.05$ , \*\* $p < 0.001$

Table 7. *Details for the L2 Logistic Regression Models in Table 6*

| Statistical tests | Group 1 | Group 2 | Group 3 |
|-------------------|---------|---------|---------|
| $\chi^2$          | 7.69    | 47.23   | 20.49   |
| <i>df</i>         | 2       | 5       | 4       |
| <i>p</i>          | <0.05   | <0.001  | <0.001  |
| -2 Log likelihood | 470.58  | 615.56  | 304.18  |
| Nagelkerke $R^2$  | 0.03    | 0.12    | 0.11    |

|                   |      |      |      |
|-------------------|------|------|------|
| Percent predicted | 70.6 | 66.2 | 68.3 |
|-------------------|------|------|------|

In order to learn more about how each L2 group's mood use was distributed across the categories of the factors found to be significant predictors, we ran cross-tabulations. Groups 1 and 2 followed the same pattern of use for hypotheticality. They used the subjunctive most often in non-hypothetical (Group 1: 33.3% or 65/195 cases, Group 2: 41.3% or 107/259 cases), followed by non-past hypothetical (Group 1: 29.9% or 41/137 cases, Group 2: 36.4% or 65/178 cases), and, lastly, past hypothetical contexts (Group 1: 15.9% or 10/63 cases, Group 2: 21.2% or 14/66 cases). Group 3 was slightly different: They used the subjunctive most in non-hypothetical (43.6% or 65/149 cases), followed by past hypothetical (28.6% or 8/28 cases) and, finally, non-past hypothetical (22.2% or 16/72 cases) contexts. Regarding time reference, Group 2 produced the subjunctive most often in past-time (43.0% or 61/142 cases) and present-time (42.2% or 89/211 cases) and least often in future-time (24.0% or 36/150 cases) contexts, whereas Group 3 used the subjunctive most frequently in contexts with past-time (43.7% or 31/71 cases), followed by present-time (36.4% or 40/110 cases), and, lastly, future-time reference (26.5% or 18/68 cases). Finally, Group 2 produced the subjunctive more often in Task 2 (41.6% or 119/286 cases) than Task 1 (30.9% or 67/217 cases).

Whereas the second part of our analysis characterized variable mood use among NNSs for triggers resulting in categorical usage for NSs, the third phase of the analysis examined the 19 triggers for which NSs and NNSs showed variable mood use. For this analysis, we set out to determine whether time reference, hypotheticality, and task predicted mood use for these 19 triggers. In order to see whether NNSs exhibited similar patterns of variability for triggers that appear to be either categorical or variable in the input (as measured indirectly by the NS group), these models were run without the factor of semantic category, allowing us to compare the

results from steps 2 and 3 for each L2 group. We conducted a separate regression for each L2 group and the NSs – four in all. We also ran cross-tabulations on the factors that predicted use to see how the use of the subjunctive and indicative was distributed across the categories of the significant predictors. Tables 8 and 9 provide the details of the results for the four regression models for the set of 19 variable triggers.

*Table 8. Significant Predictors of Mood Use for NS Variable Triggers*

| Variable        | Group 1 | Group 2 | Group 3 | NSs |
|-----------------|---------|---------|---------|-----|
| Time reference  | X*      | X**     |         | X** |
| Hypotheticality |         |         |         | X*  |
| Task            |         | X*      |         |     |

*Note.* X = variable included in the model, \* $p < 0.05$ , \*\* $p < 0.001$

*Table 9. Details for the Logistic Regression Models in Table 8*

| Statistical tests | Group 1 | Group 2 | Group 3 | NSs    |
|-------------------|---------|---------|---------|--------|
| $\chi^2$          | 6.291   | 30.08   | --      | 61.95  |
| $df$              | 2       | 3       | --      | 4      |
| $p$               | <0.05   | <0.001  | --      | <0.001 |
| -2 Log likelihood | 986.20  | 1225.04 | --      | 977.89 |
| Nagelkerke $R^2$  | 0.01    | 0.04    | --      | 0.10   |
| Percent predicted | 63.3    | 57.4    | --      | 63.5   |

Beginning with the NSs, their regression indicated that time reference and hypotheticality, but not task, predicted variable use of verbal moods for the 19 triggers under investigation. The cross-tabulations revealed that NSs used the subjunctive most often in future-time (78.2% or 205/262 cases), followed by present-time (53.0% or 114/215 cases), and, finally, past-time (50.3% or 150/298 cases) contexts. Additionally, they produced the subjunctive most frequently in non-past hypothetical (63.4% or 156 cases), followed by non-hypothetical (60.5% or 231/382 cases), and, lastly, past hypothetical (55.8% or 82/147 cases) contexts.

Next, the regression models for the L2 groups showed that hypotheticality was not a predictor of mood use for any proficiency level. However, time reference was a significant

predictor for both Groups 1 and 2. For Group 1, subjunctive use was highest in future-time (42.1% or 118/280 cases), then present-time (35.4% or 73/206 cases), and, finally, past-time (32.0% or 86/269 cases) contexts. Group 2 also produced the subjunctive most often in future-time contexts (63.0% or 196/311 cases), and their frequency of subjunctive use in present-time (45.5% or 117/257 cases) and past-time (45.6% or 154/338 cases) was similar. While time reference was the only predictor for Group 1, task along with time reference influenced Group 2's use. This L2 group produced the subjunctive more frequently in Task 2 (56.3% or 278/494 cases) than in Task 1 (45.9% or 189/412 cases). None of the three factors under investigation predicted mood use for Group 3.

In the fourth and final phase of the analysis, we performed a second set of regressions on the datasets that consisted of the 19 NS variable triggers for each participant group. This set of regressions differs from the previous in that it included semantic category, in addition to time reference, hypotheticality, and task. We were able to include semantic category in this final set of regressions because for the 19 NS variable triggers, each of the five categories was represented by a minimum of three (of the original six) members. The results for the final set of regression models are available in Tables 10 and 11.

*Table 10. Significant Predictors of Mood Use for NS Variable Triggers – Full Model*

| Variable          | Group 1 | Group 2 | Group 3 | NSs  |
|-------------------|---------|---------|---------|------|
| Semantic category | X***    | X***    | X***    | X*** |
| Time reference    |         | X*      |         |      |
| Hypotheticality   |         |         |         |      |
| Task              |         | X**     |         |      |

*Note.* X = variable included in the model, \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

*Table 11. Details for the Logistic Regression Models in Table 10*

| Statistical tests | Group 1 | Group 2 | Group 3 | NSs    |
|-------------------|---------|---------|---------|--------|
| $X^2$             | 39.23   | 154.77  | 123.12  | 39.23  |
| $df$              | 4       | 7       | 4       | 4      |
| $p$               | <0.001  | <0.001  | <0.001  | <0.001 |

|                           |        |         |        |        |
|---------------------------|--------|---------|--------|--------|
| -2 Log likelihood         | 953.27 | 1100.34 | 623.19 | 953.27 |
| Nagelkerke R <sup>2</sup> | 0.07   | 0.21    | 0.27   | 0.07   |
| Percent predicted         | 65.6   | 67.5    | 66.9   | 65.6   |

These regression models demonstrate that semantic category predicted the use of verbal moods for each participant group. Table 12 illustrates this finding with the cross-tabulations for this factor. For the NSs, subjunctive use was highest with triggers of comment and volition, and it decreased in frequency according to semantic category in the following order: uncertainty, temporality, and assertion. The L2 groups exhibited similarities and differences to this NS pattern. The clearest similarity is that all L2 groups produced the subjunctive least often after triggers of temporality and, lastly, assertion. Differences were observed with regard to the remaining three semantic categories. L2 groups used the subjunctive most often with triggers of volition. Groups 1 and 2 used the subjunctive more often with the semantic category of uncertainty than of comment, while Group 3 produced the subjunctive at similar rates with triggers of comment and volition.

Table 12. *Distribution of Subjunctive Use according to Semantic Category*

| Semantic category | Group 1 |      | Group 2 |      | Group 3 |      | NSs |      |
|-------------------|---------|------|---------|------|---------|------|-----|------|
|                   | #       | %    | #       | %    | #       | %    | #   | %    |
| Comment           | 67      | 34.7 | 140     | 60.3 | 77      | 53.8 | 178 | 96.7 |
| Volition          | 68      | 57.1 | 97      | 70.8 | 55      | 68.8 | 110 | 95.7 |
| Uncertainty       | 79      | 40.9 | 159     | 64.4 | 77      | 51.7 | 144 | 68.6 |
| Temporality       | 35      | 29.2 | 40      | 28.2 | 11      | 12.9 | 31  | 24.0 |
| Assertion         | 28      | 21.5 | 31      | 20.9 | 8       | 8.6  | 6   | 4.4  |

Group 2 was the only group for whom additional factors, namely time reference and task, significantly contributed to predicting their use of verbal moods. This finding constitutes a similarity with the regression model that included the NS variable triggers but not semantic category (step three). The remaining participant groups, however, exhibited no similarities in predictive factors between the two sets of regression models.



## Discussion

In this section we begin by offering answers to our research questions. We then consider the methodological and theoretical contributions that our study makes to the understanding of language variation in general and of SLA more specifically.

### *Research Questions*

The first research question was concerned with NSs' and NNSs' categorical and variable use of verbal moods with the 30 lexical triggers selected for investigation. Our analysis indicated that NSs exhibited categorical indicative use with six triggers, categorical subjunctive use with five, and variable use with 19. No L2 group used the subjunctive categorically with any trigger and only Group 3 produced the indicative categorically with two triggers. Thus, the NNSs in the current study exhibited variable use of verbal moods with more triggers than the NSs. This observation suggests that the ability to distinguish lexical triggers that exhibit categorical mood use from those that are variable is acquired late in interlanguage and appears to indicate that categorical use among NNSs of French emerges with the indicative before the subjunctive. Regarding the NS variable triggers, we also observed that NSs tend to use one mood much more frequently than the other (e.g., *souhaiter*: 94.9% subjunctive and 5.1% indicative). In contrast, NNSs as a group tended not to exhibit this kind of extreme use with either mood. Their use of the subjunctive fell between 25 and 75 percent for many triggers. This finding demonstrates another learnability issue for NNSs. Not only must they acquire the distinction between categorical and variable triggers but they also need to develop the ability to use the subjunctive and indicative at appropriate frequencies with individual variable lexical triggers, which in the case of these 30 triggers in Hexagonal French, appears to mean strongly favoring one mood over the other.

The second research question focused on identifying some of the linguistic and extra-linguistic factors that characterize mood selection in NS and NNS Hexagonal French. It will be recalled that we ran three sets of binary logistic regressions. The first set identified the predictors of L2 mood use for the triggers with which NNSs exhibited variable use and NSs showed categorical use. The second set focused on the remaining data – the 19 triggers with which NSs exhibited variable use. To allow for comparisons with the first set of regressions, at this phase of the analysis, we examined whether time reference, hypotheticality, and task predicted mood use for NNSs and NSs. The final set of regression models was similar to the second, with the only distinction being the inclusion of the factor of semantic category in the analysis. Our discussion of the findings from the three sets of regression models centers first on results for NSs, then on results for our three groups of NNSs, and finally on a comparison between the NSs and NNSs.

Variable mood use by the group of NSs in this project was analyzed with two sets of regressions: one that included semantic category and one that did not. When semantic category was not included in the analysis, time reference and hypotheticality, but not task, predicted use, and we saw that subjunctive use was highest in discourse contexts reflecting non-realized states or events (i.e., future-time contexts and non-past hypothetical contexts). However, when semantic category was added to the regression, it was the sole predictor of variable mood use, with subjunctive use being particularly high with lexical triggers belonging to the categories of comment and volition. This finding is important because it provides a first account of variable mood use among NSs of Hexagonal French. The comparison of these two models appears to demonstrate that semantic category, which has been considered to be a proxy for lexical effects in work done by Poplack et al. (2013) on Canadian French, is a strong predictor of variation, so much that discourse-level factors lose their predictive power when it is added to the regression.

For the NNSs, we begin with a comparison of the results from the first two sets of regressions. In other words, we were interested in learning whether the same linguistic and extra-linguistic factors modulated mood use for our NNSs on triggers for which they presumably receive categorical input and those for which they presumably receive variable input. This comparison indicated that NNSs at each of the three proficiency levels varied their use of the subjunctive and indicative differently for the NS categorical triggers and the NS variable triggers. There were no similarities between the two sets of regression models for Groups 1 and 3. For Group 2, both task and time reference predicted mood use for both sets of triggers. However, whereas the pattern of subjunctive use across the two tasks was similar for both sets of triggers, the frequency of verbal mood use across the categories of time reference differed between the NS categorical and NS variable triggers. These comparisons appear to indicate that the ways in which NNSs vary their use of verbal moods differs depending on whether there is evidence of variation in the input. Interestingly, the patterns of variation for the NS variable triggers showed many (partial) similarities with the results found for the NSs in the same model, which brings us to a comparison of the NS and NNS variable mood use models.

Comparisons between NS and NNS variable mood use are possible for the final two sets of regressions, which looked at mood use with triggers for which NSs showed variable use. In the first of these – the regression model in which semantic category was not included – time reference and hypotheticality were found to significantly predict NS mood use. Although hypotheticality was not significant for any of the L2 groups, the factor of time reference was found to be significant for Groups 1 and 2, with Group 1 showing the same distribution of subjunctive tokens as the NSs (future > present > past), and Group 2 showing a partially similar pattern (future > present / past). Time reference was not found to significantly predict mood use

for Group 3. This non-targetlike use for Groups 2 and 3 seems to demonstrate that Group 1's target-like use was a temporary pattern along the developmental trajectory and that varying the use of the subjunctive and indicative, which involves modulating frequency of use in different linguistic contexts, is acquired late in the developmental process. Once semantic category was included in the regression analysis, the resultant models changed and we found that semantic category was the only significant predictor for the NSs, Group 3 and Group 1. Group 2's mood use was significantly predicted by semantic category, time reference, and task. Although semantic category proved to be significant for each group, the examination of the patterns of use of these factors, as identified by the cross-tabulations, identified few patterns of strictly target-like use on the part of the NNSs. That said, it bears note that all four groups showed the lowest subjunctive use with the categories of temporal and assertion triggers.

#### *Theoretical and Methodological Contributions*

Turning now to the choice of a variationist approach for the current study, we note that this project is the first to examine mood use in Hexagonal French using variationism. The results from our elicitation tasks allow us to corroborate reports from corpus-based studies that have reported evidence of variation in mood use in modern Hexagonal French (e.g., Blanche-Benveniste, 2010). In particular, we have shown that the majority of lexical triggers targeted in this project resulted in variable NS usage and that this variable usage was significantly predicted by the semantic category of the lexical trigger. If, as has been suggested by Poplack et al. (2013) for Canadian French, semantic category can be taken to reflect a lexical effect, this finding would provide empirical support for earlier reports that native Hexagonal French may be largely a matter of lexical determination (Lepetit, 2001; O'Connor DiVito, 1997). However, whereas Poplack et al. argued that the subjunctive in Canadian French is now a thing of fixed expressions

and schemas, the data from the current project do not allow us to go so far with respect to mood use in Hexagonal French. For that, a large-scale study in which we manipulate lexical triggers and embedded verbs as a function of the frequency with which they are found used in subjunctive structures will need to be undertaken.

The confirmation of the variable nature of mood use in NS French also calls into question the use of error analyses in the study of SLA of mood use in French. Because NS use with some triggers is variable, the input NNSs of French receive (especially those living in the target-language community, like those in the current project) is likely variable; thus error analyses, which are generally based on the idea of categorical usage, are inappropriate for this grammatical structure. In the current project, we presented what we believe is the first attempt at analyzing the acquisition of mood use in L2 French that takes the variable nature of this phenomenon into account at every phase of the research process. Among other issues, our variationist approach allowed us to determine that the NNSs in this project were all sensitive to the variable of semantic category, which is also the way in which the subjunctive is traditionally explained to learners (Sanctobin & Verlinde, 2000: 219). Two additional insights into lexical triggers were made possible by our adoption of a variationist approach as opposed to an error analysis. First, since our data show that about two thirds of our lexical triggers result in some level of variation for NSs, it seems to be the case that categorical usage with certain triggers may be a hallmark of more advanced learner interlanguage. Second, although the target for approximately one-third of the triggers was categorical use of the subjunctive or indicative, NNSs' use of verbal moods with these triggers (except for *penser* and *savoir* for Group 3) was characterized by variability.

In addition to taking the variable nature of mood use into account in the study of the acquisition of this variable structure, our project makes a methodological contribution to the

study of NS and NNS variation. Although variationism has largely relied on the analysis of large oral corpora, researchers have begun to introduce new tasks to the study of variation. The need for such approaches in SLA in particular is clearly stated by Geeslin (2010: 506):

if we hope to fully understand what a learner grammar looks like and how it develops, we must use multiple elicitation tasks because this is the only way to see the full variety of occurrences of a given structure and the full range of conditions under which they occur.

In the current study, we developed two written elicitation tasks, which had the advantage of allowing us to elicit sufficient data and to control the presentation of a small number of variables hypothesized to be significant in conditioning mood use.

We conclude with the theoretical impact that our study makes on SLA. As mentioned earlier, L2 usage patterns allowed us to identify the variables of semantic category, time reference, hypotheticality, and task as implicated in the changes that takes place with mood distinction along the developmental path toward targetlike use. The cross-sectional analysis of the three groups of NNSs of French revealed non-linear changes in the developmental trajectory for the acquisition of this morphosyntactic structure with regard to both the frequency of use of verbal moods and the predictors of mood use. Previous research on the SLA of variation has demonstrated this same developmental characteristic for various variable structures (e.g., Gudmestad, 2012; Gudmestad & Geeslin, 2013). Moreover, as Gudmestad and Geeslin (2013) discussed, not only does this non-linearity appear to be a characteristic of L2 variation, but these fluctuations in interlanguage development constitute a commonality among variable and categorical structures. Ortega (2009: 116), for example, describes SLA as a process that is characterized by non-linearity. She writes, "... learners' internal knowledge systems continually engage in processes of building, revising, expanding and refining L2 representations, as the new grammar develops." Thus, despite the linguistic differences between variable and non-variable

grammatical structures, some of the developmental processes at play are the same.

The results from our investigation of individual lexical triggers supports Zyzik and Gass's (2008) notion that vocabulary plays a role in the acquisition of morphosyntactic structures. More specifically, we see that triggers classified within semantic category show different degrees of variation. Indeed, about one-third of triggers were found to elicit categorical subjunctive or indicative use from our NSs, whereas only NNSs in Group 3 exhibited any categorical usage (and only with two triggers). This type of observation highlights the interconnectedness of lexis and morphosyntax and leads us towards Sinclair's (1991: 104) perspective, which has gained much traction among researchers interested in formulaic language: "it is much more fruitful to start by supposing that lexical and syntactic choices correlate, than that they vary independently of each other."

Thus, in addition to supporting previous research that has demonstrated that mood distinction in L2 French is acquired late, the current study offers an initial explanation as to how learners integrate the variable nature of mood distinction into their developing grammar. L2 speakers of French appear to be sensitive to the frequency and predictors of use of verbal moods in their input (as measured indirectly by the NS baseline data in our study) because, systematically, they incorporate these constraints into their interlanguage and modify them as they gain more exposure to the target language.

### Conclusion

The current study demonstrates that the variationist approach provides valuable insights into the use of verbal moods by NSs of Hexagonal French and into the L2 acquisition of mood distinction in French. To our knowledge, the present investigation constitutes the first time that the discourse-level variables of time reference and hypotheticality, means of expanding the ways in

which the realis/irrealis distinction is operationalized in research, have been examined in relationship to mood distinction in French. Importantly, these variables revealed new information about the ways that NSs and NNSs use the subjunctive but, in general, they were also found to lose their predictive power when semantic category was included in the analysis. In addition to these contributions, the current study has identified directions for future research. Subsequent investigations should examine other mood-choice contexts and linguistic and extra-linguistic variables in order to more fully characterize NS variation and L2 acquisition of mood distinction in French. In addition, we feel that elicitation tasks may be an interesting tool to use in order to examine the importance of lexical effects, both in the trigger and in the embedded verb, in the French subjunctive. Comparisons of oral and written tasks completed by the same participants are necessary to understand the role that task variation plays in language variation and acquisition. In sum, the present investigation has offered empirical evidence that demonstrates that a range of linguistic factors characterize how NSs vary in their use of verbal moods in French and how these same factors modulate L2 acquisition.

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