

**Birkbeck ePrints: an open access repository of the
research output of Birkbeck College**

<http://eprints.bbk.ac.uk>

Dewaele, J-M (2002) Psychological and sociodemographic correlates of communicative anxiety in L2 and L3 production. *International Journal of Bilingualism* **6** (1): 23-38.

This is an exact copy of a paper published in *International Journal of Bilingualism* (ISSN 0367-0069). © 2002 Kingston Press

All articles available through Birkbeck ePrints are protected by intellectual property law, including copyright law. Any use made of the contents should comply with the relevant law.

Citation for this version:

Dewaele, J-M (2002) Psychological and sociodemographic correlates of communicative anxiety in L2 and L3 production. *London: Birkbeck ePrints*. Available at: <http://eprints.bbk.ac.uk/archive/00000448>

Citation for the publisher's version:

Dewaele, J-M (2002) Psychological and sociodemographic correlates of communicative anxiety in L2 and L3 production. *International Journal of Bilingualism*, **6** (1) pp. 23-38

<http://eprints.bbk.ac.uk>

Contact Birkbeck ePrints at lib-eprints@bbk.ac.uk

Psychological and sociodemographic correlates of communicative anxiety in L2 and L3 production*

Jean-Marc Dewaele

Birkbeck College, University of London

*Acknowledgments**

We would like to thank the director of the Koninklijk Atheneum I Centrum Brugge, Mrs. Monique Devisscher, and her staff for their cooperation and help in the gathering of the data for the present study.

Abstract

This paper analyses foreign language anxiety in the French L2 and English L3 speech production of 100 Flemish students. The findings suggest that foreign language anxiety is not a stable personality trait among experienced language learners. The societal as well as the individual contexts were found to determine levels of communicative anxiety. The perception of French as the former prestige language in Flanders and its function as a social marker was found to be linked to the participants' social class, which was, in turn, linked to levels of anxiety in French—but not in English. This social effect appeared to be a stronger predictor of communicative anxiety in French than three personality variables (extraversion, neuroticism, and psychoticism). Psychoticism, extraversion, and, to a lesser extent, neuroticism did however significantly predict levels of communicative anxiety in English L3 production. Students who scored high on the extraversion and psychoticism scales reported significant lower levels of communicative anxiety in English. Those who scored low on the neuroticism scale also tended to report lower levels of communicative anxiety in English. The same pattern emerged for communicative anxiety in French without reaching statistical significance.

Key words

foreign language anxiety

L2

L3

personality

1 Introduction

Foreign language anxiety is one of the most important predictors of foreign language achievement (Onwuegbuzie, Bailey, & Daley, 1999). It can be defined as “the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning” (MacIntyre & Gardner, 1994, p. 284). More recently, Onwuegbuzie, Bailey, and Daley (2000) described foreign language anxiety as “a form of situation-specific anxiety” (p. 88). Although much research has been done on foreign language anxiety, its complex and multidimensional nature (Young, 1991) could explain why this field still remains underdeveloped (Aida, 1994). Such research is vital because we need to understand why a language learner feels anxious in order to control such anxiety and alleviate its effects (Horwitz, 1996; MacIntyre & Gardner, 1991a, b; Onwuegbuzie et al., 2000; Scovel, 1991).

Address for correspondence

Department of French, Birkbeck College, University of London, 43 Gordon Square, London WC1H 0PD;
e-mail: <j.dewaele@bbk.ac.uk>

Philipps (1991) warns that language anxiety in the classroom causes negative affective reactions and can induce negative attitudes and discourage students from continuing their language study. Teachers need to be aware that language anxiety plays a role in overall strategy use and the use of certain types of strategies in the language classroom (MacIntyre & Noels, 1996). Research on foreign language anxiety will thus have important implications for the teaching as well as the learning of foreign languages.

2 Previous research

In their exploratory study of the relations between language anxiety and other anxieties in speaking English L1 and French L2, MacIntyre and Gardner (1989) found two orthogonal factors which they labeled “General Anxiety” and “Communicative Anxiety.” The former factor included scales of Trait, State, and Test Anxiety; the latter was defined by French Class, French Use, English Class and Audience anxieties. No relationship was found between General Anxiety and French vocabulary learning and production but significant negative effects emerged on the learning of French L2 vocabulary. A similar effect appeared in tests of the written and oral production of similar items from long-term memory. A close analysis of the correlations between the individual anxiety scales and the language production measures revealed that the French anxiety scales were responsible for the effects observed for the Communicative Anxiety factor. The results confirmed earlier findings by Horwitz (1986) and Gardner, Moorcroft, and MacIntyre (1987) on the orthogonal nature of Language Anxiety and Trait Anxiety. Similar results emerged from MacIntyre and Gardner’s (1991b) study into the factor structure underlying 23 scales assessing both language anxiety and other forms of anxiety. French L2 tasks were judged to be more anxiety-provoking than their English L1 equivalents by 95 students who had had an average of eight years of courses in French as a L2 (p. 518). Subjects with higher levels of language anxiety in the L2 (but not the L1) obtained significantly lower scores on a Digit Span test (a measure of short-term memory) and on a Thing Category test (vocabulary production). The authors suggest that impaired performance among more anxious students could be related to short-term memory loss and problems in the long-term memory retrieval, both attributable to anxiety (p. 530). MacIntyre and Gardner (1994) proposed a 3-stage model of foreign language anxiety. Foreign language students can experience fear at the input stage when they are presented with new information in the foreign language. This anxiety can have detrimental effects on their concentration and on their ability to encode the linguistic stimuli. Secondly, anxiety at the processing stage can debilitate cognitive operations performed on external stimuli and memory processes. The students may experience a reduced ability to understand messages and learn new vocabulary. Finally, anxiety at the output stage can interfere with the retrieval of previously learned material and might hinder the students’ ability to produce the foreign language (MacIntyre & Gardner, 1994). The authors also found that language anxiety “tends to correlate with measures of performance in the second language but not in the native language” (p. 301). The authors conclude that the “potential effects of language anxiety on cognitive processing in the second language may be pervasive and may be quite subtle” (p. 301). Further research generally supported the three-stage model of foreign language anxiety (Onwuegbuzie, et al., 2000).

MacIntyre (1999) reviewed the literature on foreign language anxiety and concluded that a moderate negative relationship exists between language anxiety and various measures

of language achievement. Interestingly enough, language anxiety does not necessarily diminish as the learner progresses. Saito and Samimy (1996) found that anxiety appeared highest among advanced subjects and lowest among intermediate subjects learning Japanese as a L2 in the U.S.A. The authors believe that this shift may be due in part to the increased degree of difficulty and the decreased instructional time encountered in advanced courses. Findings confirm the negative impact of anxiety on performance.

2.1

Factors associated with foreign language anxiety

In their study of 210 university students enrolled in French, Spanish, German, and Japanese courses, Onwuegbuzie, et al. (1999) examined the effect of 26 factors on foreign language anxiety. The authors identified seven variables that significantly predict foreign language anxiety (i.e., age, academic achievement, prior history of visiting foreign countries, prior high school, experience with foreign languages, expected overall average for current language course, perceived scholastic competence, and perceived self-worth). These variables account for 40% variance in foreign language anxiety (p. 232).

Several researchers suggest that skill in one's native language (e.g., reading, vocabulary, group achievement) may affect anxiety levels in the foreign language (Ganschow & Sparks, 1996; Sparks, Artzer, Ganschow, Siebenhar, Plageman, & Patton, 1998): "Students who have overt or subtle native-language difficulties in reading, writing, listening, and speaking are likely to experience similar difficulties in learning a foreign language" (Sparks et al., 1998, p. 209).

Foreign language anxiety has also been found to be linked to interpersonal relationships. In a recent study, Dörnyei and Kormos (2000) failed to find an expected negative correlation between language anxiety and English L2 use in dyadic conversations between 46 Hungarian students. The authors argue that one interlocutor's degree of language anxiety might in fact influence the other interlocutor: if both are anxious this variable will significantly affect the L2 output, whereas, "if the interlocutor is sufficiently confident, h/she might 'pull along' the more anxious speaker and therefore the impact of anxiety may not reach statistical significance" (Dörnyei & Kormos, 2000, p. 296).

In the present study, we will focus on the effect of social and individual contexts (MacIntyre, Dörnyei, Clément, & Noels, 1998) on foreign language anxiety, and more specifically its effects on *speaking* a foreign language, as this is generally considered to be the most anxiety-provoking of second language activities (MacIntyre & Gardner, 1991a; Phillips, 1992; Young, 1990). It is thus a study on the links between output anxiety (MacIntyre & Gardner, 1994) and enduring influences (e.g., intergroup relations, learner personality) which represent "stable, long-term properties of the environment or person that would apply to almost any situation" (MacIntyre et al., 1998, p. 546).

2.2

The societal context

The societal context refers to the intergroup climate in which interlocutors evolve (MacIntyre et al., 1998). The authors distinguish "two complementary dimensions concerned with the structural characteristics of the community and their perceptual and affective correlates" (p. 555).

The structural characteristics concern ethnolinguistic vitality and communication networks that either favor or do not favor the use of the L2. Ethnolinguistic vitality reflects the socioeconomic power of a community and the extent to which its members are represented in sociopolitical institutions (p. 555). Communication networks refer to the groups with which there is regular communication; these can consist of L1 and L2 subnetworks. Perceptual and affective correlates determine “attitudes and values regarding the L2 community and the motivation to adapt and reduce social distance between ethnic groups” (p. 556). Intergroup relations are often tense and this will affect L2 learning and communication. Prejudiced attitudes might demotivate L2 learners. Gardner (1985) found that parents’ attitudes are highly influential on their children’s language-learning motivation. Parents who encourage their children to learn an L2 might nullify this by showing negative attitudes toward the L2 group in question.

Likewise, the socioeconomic status of the parents is important in predicting attitudes towards learning and academic performance (Furnham & Heaven, 1998). Parents with high socioeconomic status have certain values and beliefs that increase the likelihood of academic success (Argyle, 1994). One could expect, by extrapolation, that language learning success is also determined by the socioeconomic status of the parents.

2.3

The individual context

The individual context refers to stable personality characteristics found to be particularly relevant to communication (MacIntyre et al. , 1998, p. 555). The causes of personality traits “have always been acknowledged to be both biological and social” (Furnham & Heaven, 1998, p. 32). According to these authors, extraversion-introversion and levels of anxiety seem to be the best predictors of performance, depending “on the type of task being completed, the presence of distracting factors, and the complexity of the task” (p. 82).

Extraversion–Introversion. Extraverts tend to be sociable, outgoing, gregarious, talkative, underaroused individuals (Furnham & Heaven, 1998, p. 325), while introverts tend to be reserved, quiet, and unassertive. Studies on language and extraversion are relatively few in number (Dewaele & Furnham, 1999, 2000, 2001; Furnham, 1990; MacIntyre & Charos, 1996). Negative publicity for trait extraversion within the field of applied linguistics resulted from one seriously flawed—but unchallenged—study by Naiman, Frohlich, Stern, and Todesco (1978) on personality variables and language learning, where extraversion scores determined with the Eysenck Personality Inventory (EPI) were found not to correlate with written language test results (Dewaele & Furnham, 1999). Dewaele and Furnham (1999) argued that if Naiman et al. (1978) had used a wider variety of more sophisticated linguistic variables, covering not only written language but also natural communicative oral language, they might have found that the construct validity of the EPI was not to blame for the lack of expected correlations. This is what Dewaele and Furnham (2000) did using a corpus of French interlanguage from Dutch L1 students. Correlational analyses between extraversion scores and six linguistic variables reflecting fluency and accuracy revealed that extravert multilinguals are more fluent than introvert multilinguals, especially in stressful interpersonal situations. It was argued that some cognitive and physiological characteristics associated with extraversion, such as superior short-term memory and better resistance to stress, can explain the superior fluency of the extraverts’ speech production (Dewaele & Furnham,

2000). The extraverts' superior fluency in stressful situations could also be linked to their lower communicative anxiety in the L2 and their inclination to take risks (Ely, 1986; Horwitz, 1986). The finding that introverts use significantly fewer colloquial words than extraverts in conversations in French interlanguage was also interpreted as an illustration of the introverts' higher levels of language anxiety (Dewaele & Furnham, 2001). Eysenck and Eysenck (1985) and Matthews and Dorn (1995) suggest that extraverts are underaroused, introverts overaroused. These arousal levels have been linked to the proportion of the neurotransmitters dopamine and norepinephrine in certain brain areas (Depue & Collins, 1999; Lieberman, 2000). The introverts' higher level of cortical arousal and greater fear of punishment may make them behave in a cautious manner. Anxiety can explain performance differences between extraverts and introverts, according to Furnham and Heaven (1998). Anxiety "has an impact on one's ability to perform certain tasks, and this relationship is mediated by arousal" (p. 82). Earlier research had already shown that introverts tend to be more socially anxious (Cheek & Buss, 1981) and that high anxiety leads to increased attentional selectivity and reduced attentional capacity (Eysenck, 1979, 1981; Fremont, Means, & Means, 1976). Highly anxious subjects have a reduced elaboration of encoding under high anxiety (Eysenck, 1981, p. 183). Eysenck (1979) reconceptualized anxiety in terms of cognitive interference. He suggested that the anxious person divides his/her attention between task-related cognition and self-related cognition, making cognitive performance less efficient. Eysenck suggested that the anxious person tries to compensate for reduced efficiency by increased effort. Markham and Darke (1991) found that high anxiety inhibited verbal—but not spatial—reasoning tasks when the processing demand was high, and concluded that cognitive self-concern has different effects on the verbal and visual domains of the working memory system. We have seen earlier that MacIntyre and Gardner (1991b) develop this explanation to explain the deficit in more anxious students, without referring explicitly to extraversion. In a more recent article however, MacIntyre and Gardner (1994) point out that Eysenck's theory "is able to explain the negative effects observed for language anxiety" (p. 285). Pursuing this line of research MacIntyre and Charos (1996) used path analysis to investigate the role of global personality traits on self-reported frequency of communication in a second language. They found significant negative correlations between extraversion and language anxiety (p. 19). A negative correlation emerged between language anxiety and willingness to communicate, suggesting that introverts communicated less in their French L2 than extraverts (p. 18).

Furnham and Medhurst (1995) analyzed the link between personality types and seminar-type (or classroom) activities. They found quite predictably that extraverts are much better suited to seminar-type activities than other personality types. They participate more and are less averse to making oral presentations. The overall best predictor, however, was the participant's outcome on Eysenck's psychoticism scale.

Neuroticism—Emotional stability. Neuroticism (N) is the second major personality domain in Eysenck's model of personality. It could be described as a minor nervous disorder. Persons scoring high on this scale tend to suffer from "anxiety, phobia, depression, and hypochondriasis" (Furnham & Heaven, 1998, p. 326). Those with low scores on N can be described as calm, contented, and unemotional (Goldberg, 1992). MacIntyre and Charos (1996) did not find a path from emotional stability to language anxiety. They interpret this as proof that:

general trait anxiety, as would be reflected in the emotional stability factor, is not typically associated with language anxiety. This supports the assertion that it is the social and communicative demands of L2 interaction, and not a predisposition to nervousness, that drive language anxiety. (p. 19)

In their study of personality differences in Belgian university students according to their major area of study, De Fruyt and Mervielde (1996) found that language majors scored highest on the neuroticism scale and lowest on extraversion.

Psychoticism. Psychoticism (P) is the third major personality domain in Eysenck's model and measures tough-mindedness (Furnham & Heaven, 1998, p. 230). Persons scoring high on psychoticism "tend to be hostile, cold, aggressive, and have poor interpersonal relations" (p. 327). Furnham and Medhurst (1995) found that individuals with low scores on the P scale were more likely to have good oral and written expression, were more motivated, and participated more actively in seminars.

3 Rationale for the present study

Almost all studies on language anxiety have examined it as "a stable personality trait, among experienced language learners" (MacIntyre & Gardner, 1991, p. 297). Another possibility, of course, is that the stability of the trait could be related to the fact that the studies in question considered only *one* L2 (Cheng, Horwitz, & Schallert, 1999; Horwitz, 1986; MacIntyre, 1999; MacIntyre & Charos, 1996; MacIntyre & Gardner, 1989, 1991a, b, 1994; Onwuegbuzie et al., 2000).

The present study will investigate whether foreign language anxiety can be considered as a *stable* personality trait by extending the analysis to anxiety in speaking an L2 and an L3.

The purpose of the current study is also to investigate psychological (extraversion, psychoticism, and neuroticism) and sociodemographic correlates (gender, social class) of communicative anxiety in the foreign languages of advanced learners. We also decided to investigate the extent to which self-perceived competence in the foreign language, types and frequency of contact with the foreign language, and parental attitudes are related to language anxiety.

4 Method

4.1

Participants

The participants included 100 pupils in their last year of secondary education at the Koninklijk Atheneum I in Bruges, Belgium. The sample consisted of 49 males and 51 females. The ages of the participants ranged from 17 to 21 ($M = 17.8$, $SD = .09$). Ninety-three participants had Dutch as an L1, four had both Dutch and French as an L1, one had Chinese and Dutch as an L1, one had Tunisian Arabic as an L1 and one was a native speaker of Thai. All the pupils had had formal instruction in Dutch, in French (between 3 and 5 hours a week, starting at age 10), and in English (between 2 and 4 hours a week, starting at age 12 or 14). Forty-four pupils had also studied German and 15 pupils had learned Spanish.

4.2

Materials

The materials included the short version of the Eysenck Personality Questionnaire (EPQr) (Eysenck, Eysenck, & Barrett, 1985) which yielded the following results ($N = 100$): psychoticism (P): $M = 3.96$, $SD = 2.07$, extraversion (E): $M = 8.39$, $SD = 3.10$, neuroticism (N): $M = 6.18$, $SD = 3.39$.

Participants also completed a sociodemographic questionnaire based on Baker (1992) relating to attitudes, motivation¹, communicative anxiety, frequency and types of contact with French and English, and parental attitudes towards these two languages.

Self-perceived competence and communicative anxiety in French and English were measured with a three-point Likert response format. The communicative anxiety scale measures apprehension at speaking French and English in public. The questionnaire also contained items about frequency of communication, types of contact in French and English, and parental attitudes using a True/False format.

Other sociodemographic data comprised gender (51 females and 49 males) and the family's social class which was determined through the highest level of education attained by one of the parents (Preston, 1989). Thirty-nine participants thus fell into category 1 (degree of secondary education or less), 42 into category 2 (degree of further education, maximum length being 3 years) and 19 into category 3 (university degree, obtained after a minimum of 4 years of study).

The pupils' grades for French and English were also collected. These grades were based on written work including grammar exercises and essays. The grades for French ranged between 36 and 88 out of 100 ($M = 60.5$, $SD = 9.9$). The grades for English ranged between 38 and 91 out of 100 ($M = 65.0$, $SD = 13.0$).

5 Results

The results will be examined in three sections. First, mean scores for levels of communicative anxiety, frequency of communication, self-perceived competence, grades, type, and frequency of contacts in French and English will be analyzed and compared through a series of *t*-tests. Next, the relationship between gender, social class, the scores on the psychoticism, extraversion, and neuroticism scales and the mean scores for communicative anxiety in French and English will be examined through *t*-tests and Pearson product-moment correlation coefficients. As a correlation analysis assesses the contribution of an independent variable, in isolation, to a dependent variable, it is unable to illuminate phenomena involving multiple effects (Bailey, Onwuegbuzie, & Daley, 2000).

Thus, a multiple regression analysis will be used in order to estimate the predictive power of the three personality dimensions and the social dimension (i.e., independent variables) on the scores for communicative anxiety in French and English (i.e., dependent variables).

¹ The data on motivation and attitudes have not been used in the present study as they do not reflect "basic" dimensions (cf. MacIntyre & Charos, 1996).

5.1

Mean scores of variables

The analysis of the mean scores for communicative anxiety in French and English yielded an unexpected result. Participants expressed a significantly greater communicative anxiety in French than in English (see Table 1). The result is surprising because formal instruction in French starts earlier and is more intensive than formal instruction in English. Similarly, participants judged their competence in English to be significantly higher than in French. These judgments about competence are reflected in the pupils' grades which turned out to be significantly higher for English than for French.

Table 1

Levels of communicative anxiety, self-perceived competence, and grades in French and English (Means (*M*) and standard deviation (*SD*))

Variable	N	French		English		Value of <i>t</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Level of communicative anxiety	99	1.92	.59	1.63	.56	3.98***
Self-perceived competence	99	2.16	.54	2.46	.52	-4.45***
Grades	96	60.5	9.9	65.0	13.0	-3.55***

p* < .05 *p* < .01 ****p* < .001

Less than half of the participants stated that they used French regularly outside school, a slightly higher number using English regularly outside school. This difference is not significant (Table 2). Flanders being on the linguistic crossroads in Europe², we asked the participants if they watched English and French television channels regularly. The participants reported watching English channels significantly more frequently than French ones (Table 2). Significantly more participants listen regularly to English songs than French ones; and a significantly higher number read books in English rather than in French (Table 2). Parental attitudes to French and to English were the same, with 99 out of 100 participants reporting positive attitudes towards both languages (Table 2).

To sum up, English seems to be the dominant foreign language among our participants, although parental attitudes are equally positive towards both languages.

5.2

Relationships between independent and dependent variables

A Pearson correlation analysis revealed a significant relationship between social class and communicative anxiety in French but not in English (Table 3). Participants from lower social classes reported higher levels of communicative anxiety in French. Gender did not have any effect on communicative anxiety in French or English (Table 3). Self-perceived competence in French and English was found to be strongly linked to communicative anxiety in these languages, which confirms earlier research on this subject (Table 3). A Pearson correlation analysis between the scores on the psychoticism, extraversion, and neuroticism scales and

² Flemish families have been able to watch foreign television stations for at least 15 years through regular cable connection. The current choice comprises Dutch, French, British and American English, German, Spanish, and Italian channels.

Table 2

Differences in attitudes, type and frequency of contact with French and English for 100 Flemish high-school students (t -test)

Variable	French	English	Value of t ($DF = 99$)
	$n =$	$n =$	
Use the target-language (TL) regularly outside school	43	49	1.14
Watch TL television channels regularly	28	84	10.80***
Listen to TL songs regularly	31	100	6.66***
Read TL books regularly	24	54	5.05***
Positive parental attitudes towards TL	99	99	.57

* $p < .05$ ** $p < .01$ *** $p < .001$

the mean scores for communicative anxiety in French and English also yielded intriguing results. The links between personality scores and communicative anxiety in French were nonsignificant (Table 3). However, highly significant correlations emerged between scores on the three personality scales and communicative anxiety in English (Table 3). This suggests that extraverts (high E), less anxious (low N) and colder, more hostile participants (high P) experience significantly less communicative anxiety in English. The pattern is similar but nonsignificant for communicative anxiety in French.

Table 3

Relations between independent variables and communicative anxiety in French and English (t -test and Pearson correlation analysis)

Independent variable	Communicative anxiety in French	Communicative anxiety in English
Social class	$r(99) = -.20^*$	$r(99) = .09$
Gender	$t(98) = -.69$	$t(98) = -1.02$
Self-perceived competence	$r(99) = -.49^{***}$	$r(99) = -.55^{***}$
Psychoticism	$r(99) = -.11$	$r(99) = -.30^{**}$
Extraversion	$r(99) = -.10$	$r(99) = -.23^*$
Neuroticism	$r(99) = .17$	$r(99) = .22^*$

* $p < .05$ ** $p < .01$ *** $p < .001$

These results suggest that the link between independent and dependent variables varies according to the particular foreign language. The next section will identify the predictors of communicative anxiety in French and English. We excluded the variables “gender” which does not appear to affect communicative anxiety and “self-perceived competence” which might not be a truly independent variable but rather the negative image of communicative anxiety.

5.3

Prediction of communication anxiety in French

The regression of psychoticism, extraversion, neuroticism, and social class is close to statistical significance: ($N = 100$) ($R^2 = .09$, $F = 2.26$, $df(4, 95)$, $p < .069$). No individual personality variable is a significant predictor: psychoticism: (beta = $-.09$, $t(95) = -.92$, $p = ns$); extraversion:

(beta = $-.08$, $t(95) = -.81$, $p = ns$) and neuroticism: (beta = $.17$, $t(95) = 1.7$, $p < .089$). Social class, however, is a significant predictor: (beta = $-.20$, $t(95) = -2.01$, $p < .047$).

These four variables combined to explain 9% of the total variation. Using Cohen's (1992) criteria for assessing the predictive power of a set of independent variables in a multiple regression model, the proportion of variance indicates a small effect size³.

5.4

Prediction of communication anxiety in English

The regression of psychoticism, extraversion, and neuroticism, is highly significant ($N = 100$) ($R^2 = .20$, $F = 6.10$, $df(4, 95)$, $p < .001$). Both psychoticism and extraversion are significant predictors (beta = $-.35$, $t(95) = -3.72$, $p < .001$) and (beta = $-.23$, $t(95) = -2.43$, $p < .017$). Neuroticism is a weaker predictor: (beta = $.17$, $t(95) = 1.9$, $p < .07$). Social class is not a significant predictor: (beta = $.11$, $t(95) = .08$, $p = ns$). According to Cohen's (1992) criteria, the proportion of variance explained (20%) indicates a medium effect size.

6 Discussion

Studies on communicative anxiety in foreign language production, typically report higher levels of anxiety in speaking the second language compared to the first language. It is assumed that both competence and self-perceived competence in a language affect language anxiety. As English is being taught as a third language in Flemish schools, starting later in the school curriculum and with fewer contact hours, one would expect the pupils to have become more proficient in French and, accordingly to rate their competence in that language higher than in English. This should logically lead to lower levels of communicative anxiety in French, especially given the fact that they do not report a significantly higher usage of English outside the school gates. If pupils have equal opportunities for interaction in French and English, they could be expected to have similar levels of perceived competence (MacIntyre & Charos, 1996). The omnipresence of English music, film, and multimedia in Flanders might explain these apparently contradictory findings in our data. Daily contact with highly valued Anglo-American culture might create a sense of linguistic security and ease when speaking English. Another factor easing levels of anxiety in English could be the fact that the interlocutors might often be non-native speakers themselves. Conversations in French are probably more often conducted with native speakers, hence the inequality in the status of the interlocutors (Py, 1995). Native speakers of French might also react differently to errors in French than native speakers of English who are notoriously more relaxed about their language (Dewaele, 1999; Wise, 1997). A few unpleasant experiences with native speakers of French might significantly raise the students' levels of anxiety in that language.

A second important finding is the variable effect of personality on communicative anxiety, especially as the latter was generally assumed to be stable. The fact that extraversion, neuroticism, and psychoticism are significant predictors for communicative anxiety in English but not in French is puzzling. It is also surprising that social class is a predictor for communicative anxiety in French but not in English. Could these two findings be related?

³ According to Cohen (1992) squared partial correlations values between 2 and 12.99% suggest small effect sizes, values between 13 and 25.99% indicate medium effect sizes, and values of 26% and greater suggest large effect sizes.

For this we have to delve into the turbulent history of French in Flanders. French has long been spoken by members of higher social classes in Flanders and is still the first language (together with Dutch) for a minority of Flemings (Baetens Beardsmore, 1993; Dewaele, 2000; Willems, 1997). The hostility of many Flemings towards French is not so much the result of the present — sometimes strained — relationship with the Walloons and the French speakers of Brussels within the federal kingdom of Belgium, but rather the perception that French was/is socially superior and that speaking French in Flanders is interpreted as a sign of ostentation and of disregard for Dutch. Flemings remember the time well when not being able to speak French fluently was a cause of ridicule and a bar to social and professional promotion. One can assume that until a few decades ago, Flemings did in fact experience higher levels of anxiety when speaking French if they were not fluent in it. Since Flemings from higher social classes were more likely to know that language well, they would have had much lower levels of anxiety. Less privileged Flemings, on the other hand, would have experienced high levels of language anxiety because of their lower fluency. This would have resulted in a wider social gap with their French-speaking interlocutor. Could this old, socially motivated language anxiety have trickled down the generations? If that were the case, it would have to be at an unconscious level because the participants reported overwhelmingly positive parental attitudes to both English and French (98 out of 100 for both languages)⁴.

The small and medium effect sizes of our independent variables on communicative anxiety in French and English suggest that communicative anxiety is a highly complex, multi-dimensional concept. Causes for anxiety in one language do not necessarily have the same weight in another language. The effects of extraversion, psychoticism and neuroticism on language anxiety might not be significant in French, but the pattern is similar to the one in English.

The anxious foreign language speaker is nearer the introvert end of the continuum, which follows logically from the observation that introverts tend to be reserved, quiet, and unassertive in contrast to the more outgoing and talkative extraverts (Furnham & Heaven, 1998). The extraverts' more optimistic side might limit their fear of speaking a foreign language. The degree of extraversion is moreover linked to self-perceived competence in English ($r = .19$, $p < .06$), which is linked negatively to communicative anxiety in English ($r = -.55$, $p < .00$). This does indeed confirm earlier findings, that is, that anxious foreign language students tend to underestimate their competence relative to less anxious students, who tend to overestimate their competence (MacIntyre, Noels, & Clément, 1997).

While we do not doubt the independent nature of general trait anxiety and language anxiety, our results show a moderate positive relationship between both⁵. Those speakers who scored higher on the N scale (showing signs of anxiety, phobia, depression, and hypochondriasis) also tended to report higher levels of language anxiety in English. This result

⁴ This highly surprising finding will be investigated in more detail in a separate study on the students' attitudes and motivations.

⁵ A similar relationship exists between anxiety and introversion (Eysenck, 1981) although both dimensions are independent: the anxiety dimension, as measured by tests such as the Manifest Anxiety Scale (...), lies within the (...) space defined by introversion-extraversion (...), correlating approximately +0.3 to +0.4 with the introversion end of introversion-extraversion dimension. (p. 167)

Dewaele (2002) argues that anxiety and introversion both affect catecholamine activity (i.e., levels of norepinephrine and dopamine) which is linked to capacity and/or efficiency of the short-term memory.

contradicts earlier findings of the absence of a link between emotional stability and language anxiety (MacIntyre & Charos, 1996). It thus seems that “the social and communicative demands of L2 interaction drive language anxiety” (1996, p. 19), but that a predisposition to nervousness can reinforce the level of language anxiety. Higher levels of general trait anxiety (and language anxiety) do not seem to deter students from choosing language majors (De Fruyt & Mervielde, 1996).

However, Furnham and Medhurst’s (1995) finding that individuals with low scores on the P scale were more likely to have good verbal skills does not mean that they are free of language anxiety. Low scores on the P scale are indicative of good interpersonal relations and a warm and friendly disposition; it also means being attentive to the needs of interlocutors and hence being worried that one’s own delivery in a foreign language might not be good enough. People with higher scores on the P scale are colder and more hostile, so it seems logical that they should experience less communicative anxiety in a foreign language because they care less whether or not they have been properly understood.

Our findings concerning the variable effects of sociodemographic and psychological correlates of communicative anxiety in French and English have important implications for the teaching of these languages in Flanders. While all formal language instruction should take place in a low-threat environment, the teaching of French would benefit most from this more relaxed approach. Speaking French is perceived as being a more anxiety-provoking activity, especially for students from lower social classes, than speaking English. Teachers of French need to convince their Flemish students that French lost its function as social marker decades ago and that a less than native proficiency in French has no social importance. They need to show that French is “as easy,” as interesting and as useful as English. To do this, French teachers need to overcome a number of major obstacles. Unlike English, which is inextricably linked to youth culture on radio (pop music), television (MTV, popular British and American soap series like *the Simpsons*), in cinemas (English-speaking films in original version with subtitles) and on the Internet, contact with French and French culture is mostly restricted to French classes at school. The main source of information about anything French is the student’s language-teaching manual. The French textbooks used in Flemish schools follow the communicative competence models as set out in the official curriculum (*Leerplan*, 1997a; 1997b) but offer little more than stereotypical speech acts on how to buy bread and find your way to the station, reinforcing cultural stereotypes along the way. These books are incredibly boring, uninspiring, bland, totally lacking in authenticity, and they probably reinforce the students’ resentment and language anxiety in French (Dewaele & Dewaele, 2000). We would argue that this is the result of stifling rules and directives in the Flemish curriculum that severely limit the freedom of authors and discourage publishers from accepting projects that do not strictly conform to the rules (in, so far, a very small market). Similar concerns have been voiced for the teaching of German in Flanders (Sercu, 2000). Dewaele and Dewaele (2000) plead for a radical change in the Flemish curriculum that would allow publication of French language manuals with a wide variety of authentic material (French rap, popular film, comics, rhymes, as well as poems, extracts from plays etc.) from a wider variety of countries (Québec, French-speaking African countries, Switzerland, Belgium...). The societal causes for the higher levels of communicative anxiety reported in French can only be remedied by changes in educational policy. These changes will be deemed to have been successful

when communicative anxiety in French is predicted only by personality variables, and no longer by social class.

7 Conclusion

We have established that foreign language anxiety might in fact not be a stable personality trait among experienced multilingual language learners. Indeed, anxiety levels were found to be quite different for L2 and L3 speech production. Both the societal and the individual contexts were found to determine levels of communicative anxiety. The perception of French as the former prestige language in Flanders and its function as a social marker were found to be linked to the participants' social class. The higher level of anxiety in French—but not English—experienced by participants from lower social classes could be seen, in the absence of a better explanation, as the left-overs of a bygone era when the quality of one's French reflected one's social and professional standing. This social effect appeared to be a stronger predictor of communicative anxiety in French than the three personality variables (extraversion, neuroticism, and psychoticism). Psychoticism, extraversion, and, to a lesser extent, neuroticism did predict communicative anxiety in English.

These findings raise a number of interesting questions and provide useful directions for future studies of foreign language anxiety. To begin with, future research needs to compare levels of communicative anxiety in speakers who are at least trilingual. Future studies also need to look at the variable effects of societal and individual factors on foreign language anxiety. Also, the issue of the “hidden” perception of French as a socially superior language by members of lower social classes in Flanders merits further investigation. We hope that we have provided a useful first step in this research by showing that foreign language anxiety is an extremely complex phenomenon, resulting from an intricate mix of societal and individual factors. Finally, this study also has important educational implications. We have argued that changes need to be implemented in the official Flemish school curriculum in order to make language courses more attractive and more interesting to students, as this seems a necessary prerequisite for better teaching and learning, which would, in turn, boost self-confidence and reduce levels of foreign language anxiety.

Received: July, 2000; revised: January, 2001; accepted: February, 2001

References

- AIDA, Y. (1994). Examination of Horwitz, Horwitz and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal*, **78**, 155–168.
- ARGYLE, M. (1994). *The psychology of social class*. London: Routledge.
- BAETENS BEARDSMORE, H. (1993). Belgium. In U. Ammon, K. J. Mattheier & P. Nelde (Eds.), *Conceptions plurilingues dans l'enseignement européen*, *Sociolinguistica*, **7**, 12–21.
- BAILEY, P., ONWUEGBUZIE, A., & DALEY, C. E. (2000). Using learning style to predict foreign language achievement at the college level. *System*, **28**, 125–133.
- BAKER, C. (1992). *Attitudes and language*. Clevedon: Multilingual Matters.
- CHEEK, J. M., & BUSS, A. H. (1981). Shyness and sociability. *Journal of Personality and Social Psychology*, **41**, 330–339.
- CHENG, Y., HORWITZ, E. K., & SCHALLERT, D. L. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning*, **49**, 417–446.
- COHEN, J. (1992). *Statistical power analysis for the behavioral sciences*. New York: John Wiley.
- De FRUYT, F., & MERVIELDE, I. (1996). Personality and interest as predictors of educational streaming and achievement. *European Journal of Personality*, **10**, 405–425.
- DEPUE, R. A., & COLLINS, P. F. (1999). Neurobiology of the structure of personality: Dopamine, facilitation of incentive motivation, and extraversion. *Brain and Behavioral Sciences*, **22**, 491–569.
- DEWAELE, J.-M., (1999). Is it the corruption of French thought processes that purists fear? A response to Henriette Walter. *Current Issues in Language and Society*, **6**, 231–234.
- DEWAELE, J.-M., (2000). Néerlandophones—Francophones en Belgique: Liberté, égalité, fraternité? In E. Labeau (Ed.), *France-Belgique: Des ennemis de la langue de chez nous?* (pp.39–47). Québec: International Center for Research on Language Planning, Université Laval.
- DEWAELE, J.-M., (2002). Individual differences in L2 fluency. The effects of neurobiological correlates. In V. Cook (Ed.), *The nature of the L2 user* (pp.219–250). Clevedon: Multilingual Matters.
- DEWAELE, J., & DEWAELE J.-M. (2000). L'invasion de la banalité dans les manuels de français en Flandre. In J. Eichperger (Ed.), *Roeland: Dynamiek en talen voor de jeugd, dynamics and languages for youth* (pp.209–211). Gent: Roeland v.z.w.
- DEWAELE, J.-M., & FURNHAM, A. (1999). Extraversion: The unloved variable in applied linguistic research. *Language Learning*, **49**, 509–544.
- DEWAELE, J.-M., & FURNHAM, A. (2000). Personality and speech production: A pilot study of second language learners. *Personality and Individual Differences*, **28**, 355–365.
- DEWAELE, J.-M., & FURNHAM, A. (2001). *Personality and the use of colloquial words among non-native French speakers*. Unpublished paper, University of London.
- DÖRNYEI, Z., & KORMOS, J. (2000). The role of individual and social variables in oral task performance. *Language Teaching Research*, **4**, 275–300.
- ELY, C. M. (1986). An analysis of discomfort, risktaking, sociability, and motivation in the L2 classroom. *Language Learning*, **36**, 1–25.
- EYSENCK, H. J. (1979). Anxiety, learning and memory: A reconceptualization. *Journal of Research in Personality*, **13**, 363–385.
- EYSENCK, M. W. (1981). Learning, memory and personality. In H. J. Eysenck (Ed.), *A model for personality* (pp.169–209). Berlin: Springer Verlag.

- EYSENCK, H. J., & EYSENCK, M. W. (1985). *Personality and individual differences*. A natural science approach. New York and London: Plenum Press.
- EYSENCK, S., EYSENCK, H. J., & BARRETT, P. (1985). A revised version of the Psychoticism scale. *Personality and individual differences*, **6**, 21–29.
- FREMONT, T., MEANS, G. H., & MEANS, R. S. (1976). Anxiety as a function of task performance feedback and extraversion-introversion. *Psychological Reports*, **27**, 455–458.
- FURNHAM, A. (1990). Language and personality. In H. Giles & W. P. Robinson (Eds.), *Handbook of language and social psychology* (pp. 73–95). Chichester: John Wiley and Sons.
- FURNHAM, A., & HEAVEN, P. (1998). *Personality and social behavior*. London: Arnold.
- FURNHAM, A., & MEDHURST, S. (1995). Personality correlates of academic seminar behavior: A study of four instruments. *Personality and Individual Differences*, **19**, 197–208.
- GANSCHOW, L., & SPARKS, R. (1996). Anxiety about foreign language learning among high school women. *Modern Language Journal*, **80**, 199–212.
- GARDNER, R. C. (1985). *Social psychology and second language learning: The roles of attitudes and motivation*. London: Edward Arnold.
- GARDNER, R. C., MOORCROFT, R., & MacINTYRE, P. D. (1987). *The role of anxiety in second language performance of language drop-outs* (Research Bulletin No 657). London, Ontario: The University of Western Ontario, Department of Psychology.
- HORWITZ, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly*, **20**, 559–562.
- HORWITZ, E. K. (1996). Even teachers get the blues: Recognizing and alleviating language teachers' feelings of foreign language anxiety. *Foreign Language Annals*, **29**, 365–372.
- Leerplan Secundair Onderwijs: Frans* (1997a). Onderwijssecretariaat van de Steden en Gemeenten van de Vlaamse Gemeenschap v.z.w., Brussel: OVSG.
- Leerplan Secundair Onderwijs: Frans Eerste Graad* (1997b). Vlaams Verbond van het Katholiek Secundair Onderwijs, Brussel: Licap.
- LIEBERMAN, M. D. (2000). Introversion and working memory: Central executive differences. *Personality and Individual Differences*, **28**, 479–486.
- MacINTYRE, P. D. (1999). Language anxiety: A review of the research for language teachers. In D. J. Young (Ed.), *Affect in foreign language and second language teaching: A practical guide to creating a low-anxiety classroom atmosphere*. Boston: McGraw-Hill.
- MacINTYRE, P. D., & CHAROS, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology*, **15**, 3–26.
- MacINTYRE, P. D., & GARDNER, R. C. (1989). Anxiety and second language learning: Towards a theoretical clarification. *Language Learning*, **39**, 251–275.
- MacINTYRE, P. D., & GARDNER, R. C. (1991a). Methods and results in the study of foreign language anxiety: A review of the literature. *Language Learning*, **41**, 25–57.
- MacINTYRE, P. D., & GARDNER, R. C. (1991b). Language anxiety: Its relationship to other anxieties and to processing in native and second language. *Language Learning*, **41**, 513–534.
- MacINTYRE, P. D., & GARDNER, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, **44**, 283–305.
- MacINTYRE, P. D., & NOELS, K. A. (1996). Using social-psychological variables to predict the use of language learning strategies. *Foreign Language Annals*, **29**, 373–386.
- MacINTYRE, P. D., DÖRNYEI, Z., CLÉMENT, R., & NOELS, K. A. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *Modern Language Journal*, **82**, 545–562.

- MacINTYRE, P. D., NOELS, K. A., & CLÉMENT, R. (1997). Biases in self-ratings of second language proficiency: The role of language anxiety. *Language Learning*, **47**, 265–287.
- MARKHAM, R., & DARKE, S. (1991). The effects of anxiety on verbal and spatial task performance. *Australian Journal of Psychology*, **43**, 107–111.
- MATTHEWS, G., & DORN, L. (1995). Cognitive and attentional proceedings in personality and intelligence. In D. H. Saklofske & M. Zeidner (Eds.), *International handbook of personality and intelligence* (pp. 367–396). New York: Plenum Press.
- NAIMAN, N., FROHLICH, M., STERN, H. H., & TODESCO, A. (1978). *The good language learner*. Toronto: Ontario Institute for Studies in Education.
- ONWUEGBUZIE, A., BAILEY, P., & DALEY, C. E. (1999). Factors associated with foreign language anxiety. *Applied Psycholinguistics*, **20**, 217–239.
- ONWUEGBUZIE, A., BAILEY, P., & DALEY, C. E. (2000). The validation of three scales measuring anxiety at different stages of the foreign language learning process: The input anxiety scale, the processing anxiety scale, and the output anxiety scale. *Language Learning*, **50**, 87–117.
- PHILLIPS, E. M. (1991). Anxiety and oral competence: Classroom dilemma. *French Review*, **65**, 1–14.
- PHILLIPS, E. M. (1992). The effects of language anxiety on student oral test performance and attitudes. *The Modern Language Journal*, **76**, 14–26.
- PRESTON, D. (1989). *Sociolinguistics and second language acquisition*. Oxford: Basil Blackwell.
- PY, B. (1995). Quelques remarques sur les notions d'exolinguisme et de bilinguisme. *Cahiers de praxématique*, **25**, 79–95.
- SAITO, Y., & SAMIMY, K. K. (1996). Foreign language anxiety and language performance: A study of learner anxiety in beginning, intermediate, and advanced-level college students of Japanese. *Foreign Language Annals*, **29**, 239–251.
- SCOVEL, T. (1991). The effect of affect on foreign language learning: A review of the anxiety research. In E. K. Horwitz & D. J. Young (Eds.), *Language anxiety from theory and research to classroom implications* (pp. 15–23), Englewood Cliffs, NJ: Prentice Hall.
- SERCU, L. (2000). *Acquiring intercultural competence from textbooks. The case of Flemish students acquiring German*. Leuven: Acco.
- SPARKS, R., ARTZER, M., GANSCHOW, L., SIEBENHAR, D., PLAGEMAN, M., & PATTON, J. (1998). Differences in native language skills, foreign-language aptitude, and foreign-language grades among high-, average-, and low-proficiency foreign language learners: Two studies. *Language Testing*, **15**, 181–216.
- WILLEMS, D. (1997). Le français en Flandre. In D. Blampain et al. (Eds.), *Le français en Belgique: Une langue, une communauté* (pp. 261–272). Louvain-la-Neuve: Duculot.
- WISE, H. (1997). *The vocabulary of modern French. Origins, structure and function*. London: Routledge.
- YOUNG, D. J. (1990). An investigation of students' perspectives on anxiety and speaking. *Foreign Language Annals*, **23**, 539–553.
- YOUNG, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest? *The Modern Language Journal*, **75**, 426–439.