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Emotion Vocabulary in Interlanguage

Jean-Marc Dewaele
Birkbeck College, University of London

Aneta Pavlenko
Temple University

Recent research in linguistics singles out emotion words as different from other abstract words. The goal of this article is to examine five factors that may impact the use of L2 emotion vocabulary. The first study considers the impact of language proficiency, gender, and extraversion on the use of emotion words in the advanced French interlanguage of 29 Dutch L1 speakers. The second examines the influence of sociocultural competence, gender, and type of linguistic material on the use of emotion vocabulary in the advanced English IL of 34 Russian L1 speakers. Combined, the results of the two studies demonstrate that the use of emotion words in IL is linked to proficiency level, type of

Jean-Marc Dewaele, School of Languages, Linguistics and Culture, Birkbeck College, University of London. Aneta Pavlenko, CITE Department, College of Education, Temple University, Philadelphia, PA.

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Correspondence concerning this article should be addressed to Jean-Marc Dewaele, School of Languages, Linguistics and Culture, Birkbeck College, University of London, 43 Gordon Square, London WC1H 0PD, UK. Internet: j.dewaele@bbk.ac.uk or apavlenk@astro.temple.edu.

linguistic material, extraversion, and, in some cases, gender of IL speakers.

Oatley and Johnson-Laird (1998) point out that "emotions are at the center of human mental and social life" (p. 85). Not surprisingly, the phenomenon of emotions has attracted the attention of researchers in a variety of fields, including neurobiology (Borod et al., 1992; Damasio, 1999; Le Doux, 1995, 1996), psychoevolutionary theory (Plutchik, 1991), cognitive psychology (Ekman, 1980, 1992, 1993; Izard, 1992; Vackoch & Wurm, 1997, 2000), social and cultural psychology (Edwards, 1997; Ellsworth, 1994; Harré, 1986; Kitayama & Markus, 1994; Lewis & Saarni, 1985; Russell, 1994), anthropology (Levy, 1984; Lutz, 1988; Lutz & Abu-Lughod, 1990; Rosaldo, 1980, 1984), and cognitive linguistics (Athanasiadou & Tabakowska, 1998; Kovecses, 2000; Lakoff, 1987; Niemeier & Dirven, 1997; Ortony & Turner, 1990; Palmer & Occhi, 1999; Wierzbicka, 1999). This research suggests that there may be both cultural diversity and similarity in emotions (Ellsworth, 1991).

In the last two decades particular attention has been paid to ways emotions are expressed in different languages and cultures. Several linguists, psychologists, and anthropologists have demonstrated that emotion talk, concepts, and scripts may differ across cultures and that, as a result, some emotion words may have no translation equivalents (Altarriba, in press; Athanasiadou & Tabakowska, 1998; Heelas, 1986; Lakoff, 1987; Levy, 1984; Lutz, 1988; Rosaldo, 1980; Wierzbicka, 1999). Interesting links between language and emotions were also found in the field of bilingualism. Several studies indicate that in cases when a second language (L2) is learned postpuberty or even after early childhood, the two languages of an individual may differ in their emotional impact, with the first being the language in which personal involvement is expressed, and the second being the language of distance and detachment (Amati-Mehler, Argentieri, & Canestri, 1993; Anooshian & Hertel, 1994; Bond & Lai, 1986; Gonzalez-Reigosa,

1976; Javier, 1989; Javier & Marcos, 1989). Psycholinguistic studies also suggest that emotion words may be distinct from other abstract words on a number of characteristics and should be treated as a category separate from both concrete and abstract words (Altarriba, Bauer, & Benvenuto, 1999; De Groot, 1992). Together, these studies warrant a closer look at ways emotion vocabulary is incorporated and used in interlanguage (IL), as it is possible that, being language- and culture-specific and closely tied to the first language (L1), emotion vocabulary may be subject to different constraints in L2 learning and use than the rest of the lexicon. In addition, it is possible that the use of emotion words is related not only to sociocultural factors, but also to individual experiences.

In what follows, we will first discuss five factors that may impact the use of L2 emotion vocabulary: sociocultural competence, language proficiency, gender, extraversion, and topic (which is one of the components of the type of linguistic material used for elicitation purposes). As second language acquisition (SLA) research on emotion concepts and vocabulary has been minimal to date, we will also draw on studies that illuminate the role of these factors in the use of the first language. Subsequently, we will present two studies that examine the five factors under consideration. The first study involves Belgian speakers of Dutch L1 and French L2, who share a common culture and whose emotion vocabulary and concepts are considered to overlap. In contrast, the second study looks at speakers of Russian and American English, whose languages were previously shown to conceptualize and verbalize emotions differently (Pavlenko, 2002a; Wierzbicka, 1998, 1999). As a result, the first study examines the influence of language proficiency, gender, and extraversion on the frequency of use and the range of emotion words in the French interlanguage of 29 speakers of Dutch. The second study examines the impact of sociocultural competence, gender, and topic on the frequency of use and the range of L2 emotion words in the English IL of 34 speakers of Russian. The results of the two studies suggest that the frequency of use and the range of emotion words in interlanguage are

linked to proficiency level, topic, extraversion, and, in some cases, gender of IL speakers, but not sociocultural competence (which, however, influences the patterns of emotion vocabulary use). In the ensuing discussion we attempt to explain these results and present some implications of the two studies and directions for future research.

Literature Review

Sociocultural Variation in Emotion Concepts

In the last two decades, several researchers have demonstrated that emotion concepts—and the linguistic means through which emotions are expressed—may differ significantly across languages and cultures (Athanasiadou & Tabakowska, 1998; Heelas, 1986; Kitayama & Markus, 1994; Kovecses, 2000; Lakoff, 1987; Levy, 1984; Lutz, 1988, 1996; Palmer & Occhi, 1999; Rosaldo, 1980, 1984; Wierzbicka, 1992, 1994, 1995, 1999). Many scholars who see emotions as culture-specific espouse the functionalist view of emotions as an assortment of socially and culturally shared scripts that allow members of different cultures to differentially interpret similar physiological, subjective, and behavioral processes (for a detailed discussion, see Kitayama & Markus, 1994; Parrott, 1999; Tomkins, 1998; Wierzbicka, 1994, 1999). This view is well captured by Rosaldo (1984), who suggests that emotions are "self-concerning, partly physical responses that are at the same time aspects of a moral and ideological attitude; emotions are both feelings and cognitive constructions, linking person, action, and sociological milieu" (p. 304). This approach to emotions, which privileges the role of language and culture in their construction and thus the importance of emotion vocabulary, is adopted in the present article.

Cross-linguistic and cross-cultural differences documented in emotion talk allow researchers in bilingualism and SLA to expand the focus of their examination of the links between

language, emotions, and cognition, and to investigate acquisition and use of emotion vocabulary and concepts. To date, however, very little research has been done in this area. Kellerman (2001) noted: "We have very little idea how the first language or the culture one belongs to affects the expression of emotion in another language" (p. 189). In a pioneering study, Rintell (1984) examined perception and expression of emotion as an illocutionary act in the speech of second language learners and users. The researcher asked 127 foreign students, enrolled in the Intensive English Program at the University of Houston, to identify which emotion—pleasure, anger, depression, anxiety, guilt, or disgust—best characterized each of 11 tape-recorded conversations played to them. They were also asked to rate the intensity of each emotion on a Likert scale. Their responses were compared to those of 19 native English speakers, among whom there was a high level of agreement. The statistical analysis of the data demonstrated that there were no effects for either age or gender. In contrast, linguistic and cultural background and language proficiency played an important role in the students' performance. The strongest effect was that of language proficiency, whereby the scores of the beginner group ($M = 3.97$) were significantly different from the scores of the intermediate ($M = 5.99$) and advanced students ($M = 6.95$). However, even the most advanced subjects in the sample did poorly, identifying the emotions conveyed in the conversations only about two-thirds of the time. In addition, when learners of three major language groups were compared to each other, it was found that Chinese students had more difficulty with the task; their scores were consistently different from those of the Arabic- and Spanish-speaking students. Additional analysis of correct identifications demonstrated that, for both native speakers of English and ESL learners, disgust and pleasure were easier to identify than depression, anxiety, guilt, and anger. Graham, Hamblin, and Feldstein (2001) reported similar findings concerning the effect of cultural competence on the recognition of emotion in English voices by 54 native Japanese speakers and 38 native Spanish speakers learning English as a second language. The participants were

asked to identify the emotion portrayed in eight audio recordings (anger, fear, joy, sadness, depression, hate, nervousness, and no emotion). A control group of 85 native English speakers obtained an average rate of correct identification of 58.6% across all eight conditions. This was significantly higher than the judgments of the native Spanish speakers (M = 41.7%) and the native Japanese speakers (M = 37.7%). An analysis of the misjudgments revealed a mostly systematic pattern across related pairs of emotions (*anger* confused with *hate* and vice versa) for the English and Spanish native speakers. The Japanese L2 users of English manifested many more nonsystematic confusions than the Spanish L2 users. However, level of proficiency of the L2 users did not significantly affect the percentages of correct judgments of intended emotions. Average percentages were 44.2% for the advanced Spanish L2 users of English, compared to 43.8% for the less proficient ones. Similarly, the advanced Japanese L2 users of English obtained average percentages of 40.9% compared to 40.0% for the low proficiency group.

What is particularly interesting in the work of Graham et al. and Rintell is the pattern of systematic cultural differences in the identification of emotion states between Asian learners of English and speakers of Arabic and Spanish. These differences suggest that comprehension of vocal and verbal characteristics that signal emotions is not only linked to typological similarity to the target language, but also to cultural similarity, in particular with regard to emotion scripts. For purposes of our investigation this means that the first variable to explore with regard to emotion vocabulary in interlanguage is *sociocultural competence*, or the ability to identify, categorize, perceive, and engage in verbal and nonverbal behaviors similarly to other members of a particular speech community. Sociocultural competence effects are illuminated in a series of studies by Pavlenko (1997, 1999), where the researcher found that conceptual differences between Russian and American English led monolingual Russians and Americans to describe the same two films in very different terms, with Americans privileging the notions of *privacy* and *personal space*, which are not part of

Russian discourse. Consequently, Russian-English bilinguals—but not Russian foreign language (FL) learners of English—also produced narrative accounts that discussed *invasion of privacy* and *violation of personal space*, both in English and in Russian, thus suggesting that in the process of second language socialization, conceptual restructuring is taking place in the mental lexicon of the learner. Additional support for the notion of restructuring in the lexical organization of emotion domains comes from a word association study conducted by Grabois (1999). In this study, Grabois compared word associations to a number of concepts, including, *love*, *fear*, and *happiness*, provided by the following five groups of speakers: (1) monolingual speakers of Spanish, (2) monolingual speakers of English, (3) acculturated L2 users of Spanish, or late English-Spanish bilinguals, who had lived in Spain for three or more years, (4) American L2 learners of Spanish enrolled in a study abroad program, and (5) FL learners of Spanish enrolled in Spanish courses in an American university. Statistical analysis of the data demonstrated that associations supplied by the two groups of native speakers differed both in terms of the type of preferred associations (i.e., symbolic, metaphoric, related to sensory cues, etc.) and in terms of which specific words were elicited. For instance, in response to *love*, native speakers of English exhibited a greater preference for indirect (metaphoric and symbolic) associations, while native speakers of Spanish showed a preference for sensory and referential associations. Among the nonnative speakers of Spanish, acculturated L2 users consistently achieved higher correlations with the associations provided by native speakers of Spanish than any other group. Altarriba (in press) argues that emotion words in different languages share few if any features. She illustrates this view with the Spanish word *cariño,* which might be translated as a feeling similar to both liking and affection in English. Thus, *cariño* might overlap somewhat with each of its English translation equivalents while retaining its own distinct features. She concludes that there is a personal, subjective, cultural memory at a conceptual level

that is coded linguistically in a unique way within a native or dominant language as compared to an L2.

To sum up, it appears that in contexts where emotion discourses of the two languages in question differ, the lexico-semantic and conceptual organization of emotion domains, the use of IL emotion vocabulary, and the interpretation of emotion-related scripts may be influenced by the speakers' degree of sociocultural competence in the L2, with emotion concepts of the most acculturated L2 users approximating those of native speakers of the target language (Grabois, 1999; Pavlenko, 1997, 1999; Rintell, 1984).

Language Proficiency

Another factor that may be linked to fluent use of emotion vocabulary is language proficiency. In this area, too, Rintell's pioneering work can provide us with some insights. Rintell (1990) collected personal experience narratives about emotional events from six native speakers of English and eight intermediate ESL students. Her analysis demonstrated that while both sets of narratives were similar structurally, the stories of intermediate ESL learners were far less elaborate. The learners did employ direct, explicit statements of emotional response and references to physical sensations. However, they did not use figurative language, reported speech, epithets, or depersonalization, features present in the native speakers' narratives. It would be too simplistic, however, to explain these differences simply through language proficiency. As seen in the studies discussed in the previous section, language proficiency may be intrinsically linked to sociocultural competence, whereby full, or native-like, proficiency in a target language may be impossible without sociocultural competence. It is often said that less proficient IL speakers feel communicatively handicapped, unable to express their communicative intentions accurately in the IL (Rintell, 1990). This inability is mostly due to problems at the level of associative aspect of lexical competence, i.e., to a limited ability to perceive and use subtle stylistic nuances (Bijvoet, 2002; Hyltenstam, 1988; Preston, 1996).

Learners' weak knowledge of connotational and stylistic word meaning could also explain the quasi absence of colloquial words in the French interlanguage produced by advanced learners (Dewaele & Furnham, 2000b; Dewaele & Regan, 2001) or of idiomatic expressions, collocations, and metaphors in the English interlanguage of ESL students (Yorio, 1989; Kecskes & Papp, 2000). This lexical handicap may become particularly obvious when more personal and emotional topics are involved, since, as seen in the research on bilingualism and emotions discussed below, L2 users may be significantly more direct and detached when using their second language. On the other hand, it is equally possible that IL speakers would refrain from participating wholeheartedly in a discussion on an emotional topic because of their perceived lack of lexical competence in communicating subtle emotional communicative intentions. Rather than projecting a false and incomplete image of themselves on an emotional topic, the IL speakers might prefer to move to safer—and more neutral— topics. Not surprisingly, this behavior makes the work of psychoanalysts and counseling psychologists dealing with multilingual and multicultural clients much more difficult (Amati-Mehler, Argentieri, & Canestri, 1993; Bond & Lai, 1986; Gonzalez-Reigosa, 1976; Javier, 1989; Santiago-Rivera & Altarriba, in press). In other words, it appears that, for a number of reasons, less proficient L2 users may use fewer emotion words in their L2 and, as a result, sound less elaborate and more detached (Bond & Lai, 1986; Rintell, 1984, 1990). An adjustment in teaching programs may be the solution. Kellerman (2001) notes that emotional involvement in narratives is often accomplished by the use of metaphorical language but that metaphors and idioms "are topics that are rarely addressed in foreign language classrooms" (p. 189).

Overall, then, the effect of proficiency level on identification of emotions is not clear-cut: Rintell (1984) reported a significant effect but Graham et al. (2001) failed to confirm this finding. In contrast, there appear to be subtle proficiency effects on production of emotion words or, rather, performance of emotionality in narratives (Rintell, 1990).

Emotions and Topic

The discussion above underscores the importance of considering topic in research on the use of emotion vocabulary in interlanguage, with the notion of topic understood broadly as the context of a linguistic exchange, the theme of exchange, or a type of linguistic material used to elicit discussion. It is clear that for all speakers and even groups of speakers some topics may be more emotional than others, and that these differences are sociocultural as well as individual. Some emotional topics may elicit a higher number of emotion words and perhaps even pauses, false starts, and hesitations, while others would elicit detached narratives of the kind that would never have been told in L1. In other words, it is hard to predict whether and how speakers who are not fully proficient in a language would engage with an emotional topic.

Some researchers suggest that emotional topics may inhibit L2 production altogether. An interesting example of what may happen is discussed in a study of intercultural encounters by Vasseur, Broeder, and Roberts (1996). One of the study participants, Berta, a woman from Chile living in France, described an incident in which she ran to the hospital where her daughter was taken after an accident in school. There, she attempted to discuss matters with the surgeon who had operated on her daughter, but the surgeon refused to talk to her and asked her to leave the premises as it was past visiting time. Berta reported that in her frustration and anger, she was unable to find French words to protest and argue: *"je oubliais les mots en français por dire + je ne trouvais rien des mots por dire les choses"* ("I forgot the words in French to say + I could not find no words to say the things") (Vasseur, Broeder & Roberts, 1996, p. 94).

Interesting support for the constraining role of emotions on L2 linguistic processing comes from a study by Clachar (1999) who investigated the effect of emotional involvement on the L2 writing behaviors of ESL students in Puerto Rico. The researcher hypothesized that the status and role of English in Puerto Rico is a sensitive topic that is likely to have some emotional impact on all

the study participants. In contrast, a hypothetical possibility of not having to take any required university courses was seen as a more neutral topic that would not lead to a similar degree of personal involvement. She compared the students' behaviors at all writing stages—planning, writing, and revision—and found that the emotional topic led the students to focus more on the more basic, lexicomorphosyntactic level of processing and to rely more on Spanish, their L1. In contrast, the nonemotional topic allowed the students to engage in planning and to pay more attention to the higher levels of abstraction. The analysis of the finished compositions demonstrated that when the topic was of an emotional nature, the morpholexical accuracy increased, whereas organization, coherence, and discourse fluency decreased.

Other studies suggest that code switching and the use of a second language may serve a distancing function, permitting L2 users to express ideas in their second language that would be too disturbing in their first (Bond & Lai, 1986). Similarly, Javier and Marcos (1989) suggest that switching to the second language may represent an attempt to avoid anxiety-provoking linguistic materials. Other studies demonstrate that greater anxiety is produced by the presentation of emotional materials (e.g., taboo words) in the L1 of bilingual speakers who learned their second language beyond early childhood (Gonzalez-Reigosa, 1976; Javier, 1989). Anooshian and Hertel (1994) show that Spanish-English and English-Spanish bilinguals who acquired their second language after the age of eight recall emotional words (such as *mother* or *church*) more frequently than neutral words (*table* or *chair*) following their presentation in the native language.

To sum up, it appears that when looking at the use of emotion vocabulary in L2 and, more generally, at the relationship between language and emotion, one cannot ignore the topic, the context of discussion, or the linguistic materials used for elicitation purposes. The relationship between the perceived emotionality of the topic and the use of emotion words and overall fluency is quite complex. Although some linguistic materials may enhance recall, other materials may generate anxiety and lead to code switching and

greater L2 use. Similarly, while some topics and conversational contexts may generate a higher frequency of L2 emotion vocabulary use, others may produce an opposite effect and constrain the speakers' performances, or even completely silence them. Finally, perceived emotionality in itself may have distinct effects on different processing levels: in some cases it may improve lexical and morphosyntactic accuracy, while at the same time negatively affecting the overall organization, coherence, and fluency of the L2 user's discourse (Clachar, 1999; Vasseur, Broeder, & Roberts, 1996).

Emotion Language and Gender

The fourth factor that emerged as important in the study of emotion talk is gender. Two views currently exist in the field of language and gender with regard to emotion discourse. In one paradigm, commonly known as *gender differences*, women are seen as more emotional than men, and therefore more likely to be emotionally expressive and to discuss more intimate and emotional subjects (Coates, 1993, 2000; Gilligan, 1982; Holmes, 1995; James & Drakich, 1993; Lakoff, 1975; Leaper, 1987; Mulac & Lundell, 1986; Sattel, 1983; Tannen, 1990a, 1990b). The researchers working in this paradigm claim that while men concentrate more on the communicative aspect of discursive interaction, women also include a metacommunicative, interpersonal, and affective aspect, thus establishing a relation of solidarity with their interlocutor (Dewaele, 1998a, 2000; Holmes, 1997; Tannen, 1990a, 1990b, 1992). In the study of SLA, Dewaele (1998c, 2001b) showed that female participants (Dutch L1) in dyadic interactions in French with the researcher talked more about emotions and anchored their speech more firmly in the spatio-temporal context through deictic words, which are characteristic of more informal speech styles.[1]

Recent explorations in an alternative paradigm, *poststructuralist feminist linguistics*, suggest that the links between gender and emotionality in language may be more indicative of particular

cultural ideologies of language and gender than they are of existing reality (Cameron, 1992; Eckert & McConnell-Ginet, 1992; Gal, 1991; Lutz, 1996). Lutz (1996) suggests that in Western discourses of emotion the association between emotion and the female is so strong that qualities that define the emotional also define women:

> For this reason, any discourse on emotion is also, at least implicitly, a discourse on gender. As both an analytic and an everyday concept in the West, emotion, like the female, has typically been viewed as something natural rather than cultural, irrational rather than rational, chaotic rather than ordered, subjective rather than universal, physical rather than mental or intellectual, unintended and uncontrollable, and hence often dangerous. (p. 151)

Several feminist linguists point out that many early gender differences claims were based on questionable links between emotionality, gender, and particular linguistic strategies, on data collected predominantly from white middle-class speakers of English and on anecdotal evidence and examples from literature used in the often-cited contributions by Lakoff (1975), Sattel (1983), and Tannen (1990a, 1990b, 1992). A number of empirical studies employing conversation analysis and examinations of large databases of men's and women's talk failed to establish any significant trends whereby one group would be more emotionally expressive than the other. For example, Shimanoff (1983) analyzed (self-) tape-recorded casual conversations of 40 American college students (20 males, 20 females). She found that these young men and women did not significantly differ in the number of affect words they used, or in the ways they discussed emotions (in particular, in the tense, valence, or source of statements about emotion). If anything, the men in the study used slightly more affect words than women when talking about their own emotions. Similarly, Lutz (1996) found that middle-class American men and women did not differ in their use of various syntactic patterns that distance, disavow, or depersonalize the experience of emotion. At the same time, she found that women did discuss the problem of controlling one's feelings more frequently than men, which is consistent with

the view of men and women drawing on culturally available ideologies of language, gender, and emotion. In her review on gender in the psychology of emotion, Shields (1991) concluded that "the greatest effect of gender lies less in what each sex knows about emotion than in what each sex is likely to do with that knowledge, particularly in contexts where gender is salient" (p. 238). Finally, in the field of SLA no gender differences were identified in the study of emotion talk in IL by Rintell (1984).

As ideologies change over time in the process of social change, it is not surprising that researchers also found that even established gender differences in topic preference and discourses of love and marriage may undergo transformation and decline (Bischoping, 1993; Silberstein, 1988). Most importantly, several researchers pointed out that the effects of gender cannot be considered in isolation from power relations, race, class, ethnicity, culture, social status, age, and the context of a particular interaction (Cameron, 1992; Eckert & McConnell-Ginet, 1992; Gal, 1991). There is no doubt that across cultures not only women but also men have been using—and processing—emotion vocabulary. It is possible, however, that they have been doing so in different contexts: men in the public sphere, in the discourses of literature, arts, politics, and religion, and women, whose access to the public sphere was—and in many cultures remains—limited, in the private sphere. Recent research demonstrates that with the advent of feminism, women who find themselves in contexts where emotional language is devalued—in particular, the workplace— appeal to new linguistic strategies. Thus, a study of language use by white and African-American women and men of different generations employed in the Pittsburgh police force demonstrated a clear trend for younger middle-class men and women to use equally inexpressive and neutral bureaucratic language (McElhinny, 1995). Also, a study by Van Betteraij, Kellerman, and Schils (1996) on self-disclosure among Dutch, English, and Japanese participants showed that both cultural and gender stereotypes are problematic: the Japanese disclosed more than the Dutch and the

women were not more willing to disclose than men. Based on this evidence, we agree with Lutz (1996), who argues that:

> Much research over the years in biology, psychology, sociology, sociolinguistics and other fields has been implicitly based on everyday cultural models linking women and emotionality . . . this research moves from the assumption of these cultural premises to their "proof". Most striking about these studies is the number that naturalize the purported gender differences by attributing them to biological or necessary and universal features of the female role in physical and social reproduction. (pp. 158–159)

To sum up, it appears that the evidence of gender differences in emotional expression is due more to nurture than nature (Brody, 1999). At the same time, while there may be no intrinsic links between gender and the use or interpretation of emotion vocabulary, different cultures link emotion talk and gender in different ways, and thus one's L2 competence may also include knowledge about ways one speaks like a man or a woman in a second language (Pavlenko, 2001a).

Emotion Language and Extraversion

The last variable we would like to discuss is the speaker's degree of extraversion, which has also been posited as a possible influence on the use of vocabulary (Furnham, 1990) and appears to be an important factor in oral second language production (Dewaele & Furnham, 1999). Emotions play a central role in the organization of personality (Malatesta, 1990) and tend to occur in specific social circumstances (Geppert & Heckhausen, in press). The more gregarious, impulsive nature of extraverts has been linked to their greater volubility (Furnham, 1990; Furnham & Heaven, 1998). Moreover, extraverts do not keep their feelings under tight control (Eysenck & Eysenck, 1964). Introverts, on the other hand, are more anxious, cautious, and guarded, taking more heed of the maxim "be sure brain is engaged before putting mouth into gear" (Eysenck & Eysenck, 1985). They are also less likely to

disclose their emotions. Emotion words might also raise the level of arousal of a speaker beyond an optimal level. As introverts have a higher level of cortical arousal (Matthews & Deary, 1998), they might prefer to avoid extensive use of emotion words in order to keep their arousal levels under control. Extraverts, on the other hand, are under-aroused, which might allow them to talk about emotions more freely. Very little research seems to have been done in this field, especially in the area of spontaneous speech production. Dewaele (1993b) and Dewaele and Furnham (2000a) found that the degree of extraversion was negatively correlated with general lexical richness in French IL, but only in stressful situations. This was interpreted as a sign that introverts and extraverts make different choices in the speed/depth tradeoff when they are under pressure (see also Dewaele, 1998b, 2002). Extraverts were also found to opt for more implicit, informal speech styles (Dewaele, 1995, 1996b, 2001a; Dewaele & Furnham, 2000a). In a separate study based on the same corpus of French IL, Dewaele & Furnham (2000b) used multivariate regression analyses in order to identify predictors of the use of colloquial words. Both trait extraversion and proficiency level in nonnative French turned out to be significant predictors. The authors argue that extraverts' inclination to take risks, combined with lower social anxiety, might explain the higher use of colloquial words; but only if they possess the necessary communicative competence. Whether this has any implications for the use of L2 emotion vocabulary needs to be verified.

In the present article, we will discuss two studies that will allow us to illuminate possible links between sociocultural and psychological factors in the L2 use of emotion vocabulary.

Study 1

Method

The first study was conducted with Dutch-speaking learners of French and thus dealt with two languages in which conceptualizations of emotions and emotion vocabulary have been posited as similar and/or overlapping (Zammuner, 1998). Therefore, language proficiency, gender, and extraversion, but not sociocultural competence, were considered as variables. Also, since the subjects were involved in informal conversations, type of linguistic material and conversation topic were not subject to manipulation. Based on previous research findings, three hypotheses were postulated in the study:

> Hypothesis 1: More proficient IL speakers use more emotion word tokens and lemmas than less proficient IL speakers.
>
> Hypothesis 2: Female IL speakers use more emotion word tokens and lemmas than male IL speakers.
>
> Hypothesis 3: Extravert IL speakers use more emotion word tokens and lemmas than introvert IL speakers.

Participants

Twenty-nine Flemish students from the Free University of Brussels, 10 female and 19 male, aged between 18 and 21 (M = 19.5; SD = 1.1), participated in the first experiment. The students were native speakers of Dutch. They had taken French and English at a high school level (three to five hours a week) for five to eight years. Their French could be described as a "pre-advanced to advanced interlanguage" (Bartning, 1997). All participants had been following French courses at the university's language institute (three hours per week) for five months with the researcher (the first author) as their teacher. Relations between the teacher (aged 25 in 1987 when the recordings were made) and students

were relaxed and cordial. The teacher and students usually communicated in French but the students knew that the teacher had native competence in French and Dutch. The participants were administered the Eysenck Personality Inventory (Eysenck & Eysenck, 1964) in order to determine their degree of extraversion (mean score for E = 11.17, *SD* = 3.37; normative score = 11). The seven participants who scored 8 or lower on the scale for E were labeled *introverts*, the 14 participants who scored between 9 and 13 were labeled *ambiverts*, and the eight participants with a score of 14 or higher were labeled *extraverts*.

Linguistic Material

The effect of the formality of the situation on linguistic variables is considerable (Furnham, 1986; Dewaele & Furnham, 2000a; Dewaele, 2001a). We therefore restricted our analysis to conversations recorded in an informal situation where emotion words were most likely to occur. The corpus is thus based on one-to-one conversations between the researcher and 29 subjects in a relaxed atmosphere. They were told that the purpose of the conversation was merely to have a relaxed informal chat about their likes and dislikes, their studies, hobbies, politics, etc. Efforts were made to make the interviewees feel at ease, and to this end it was stressed that the content of their speech was more important than the form. Errors were not corrected and a coherent and spontaneous discussion was thus maintained. There was no time restriction. In all, about 10 hours of speech by the subjects (33,087 words) were recorded. The recordings were transcribed by the researcher into orthographical French. These transcriptions were then coded at the word level according to their grammatical nature and possible lexical or morphological errors (Dewaele, 1994, 1998c).

The Dependent Variable: Emotion Words

Words with emotional value were singled out manually using lists of emotion words presented in Davitz (1969), Messina, Morais, and Cantraine (1989), and Demakis and Harrison (1994). In agreement with these sources, we see *emotion words* as abstract and metaphorical words that refer to feelings, interests, desires, and judgments and belong to a number of grammatical classes: verbs (*to love*, *to hate*), adverbs (*happily*, *cheerfully*), nouns (*joy*, *fear*), and adjectives (*sad*, *upset*). The exact emotional value of a word varies according to the era, the culture, and even the individuality of the speaker (Ellsworth, 1994). In the corpus, we categorized all words with a value on the dimensions of valence and intensity greater than zero as emotion words (Messina et al., 1989; Zammuner, 1998). Metaphorically we could say that we ignored all the white (or nonemotional words) and put all the shades of gray up to black in the category of emotion words, while remaining very much aware of the subjective nature of this categorization.

Furthermore, a distinction was made in the analysis between *lemmas* (word types) and *word tokens* (the term *emotion words* refers to both emotion lemmas and emotion word tokens). Thus, the list of emotion words consists, after lemmatization, of 188 lemmas with a total of 988 tokens. The complete list of emotion lemmas can be found in Appendix A. The analysis considers two levels—the proportion of emotion lemmas and word tokens in a speech extract—where each level conveys a different type of information. The proportion of emotion lemmas in a speech extract reflects the richness of the emotion vocabulary of the speakers, i.e., the diversity of emotion words, while the proportion of emotion word tokens may reflect the level of emotionality and personal involvement in their speech. Having these two measures will help us to differentiate between a speaker A who may use a single emotion lemma 10 times during a conversation (a total of 10 emotion word tokens) and a speaker B who may use 10 different emotion lemmas and have the same total of 10 emotion word

tokens. One might, however, expect a positive correlation between the two values. A speaker who produces many emotion words might feel the need to differentiate between them and thus develop a richer vocabulary. Moreover, with the speech extracts being of different length, we had to convert the absolute numbers of emotion lemmas and word tokens into relative values.

The Main Independent Variable: Level of Proficiency

In Dewaele (1993a, 1994, 1998c), morpholexical accuracy rates for all word classes were calculated using the following formula:

(Total of word tokens – (incorrect + omitted + oversupplied words)) × 100 / Total number of word tokens

Among the morphological errors, six classes were distinguished: violation of gender and number, and for verbs, violation of tense and aspect, of mode and of person. At the lexical level, the following classes were taken into account: lexical inventions, words that were superficially right but that did not fit in the context (semantic errors), the absence of a word in an obligatory context, and finally supplying a word where it was not acceptable. Our corpus contains 3,400 morpholexical errors.

Morpholexical accuracy rates were found to correlate positively and significantly with speech rate (Dewaele, 1998a). A significant negative correlation was found between accuracy rates and the proportion of filled pauses (Dewaele, 1996a). As high accuracy is linked with high fluency (Lennon, 1991) and as these two aspects are generally considered to be the main components of "proficiency" in IL (Alderson, Clapham, & Steel, 1997; Ely, 1986), the first variable was used to divide the speakers into three proficiency levels. The first group contained five participants with mean accuracy rates that were more than one standard deviation (3.1) below the group mean (92.3%). The second and largest group contained 18 participants whose mean accuracy scores lay within one standard deviation above and under the group mean. The third

group consisted of six participants with mean accuracy rates that were more than one standard deviation above the group mean.

Results

Because the speech extracts differed in length, we had to calculate the proportion of emotion word tokens and lemmas in the total number of lemmas and word tokens produced by every participant. Mean proportions and the standard deviation (*SD*) were determined for the 29 participants. Table 1 presents the data for the word tokens and lemmas.

Standard multiple linear regression was used to examine the hypothesized relationships between (1) gender, (2) degree of extraversion (introvert, ambivert, extravert), and (3) level of proficiency (low, intermediate, high).

Prediction of Use of Emotion Lemmas

The regression of gender, degree of extraversion, and level of proficiency was highly significant ($R^2 = 0.57$, $F(3, 25) = 11.32$, $p < 0.001$). Gender and degree of extraversion were significant predictors (beta = –0.57, $t = –4.2$, $df = 25$, $p < 0.0003$) and (beta = 0.30, $t = 2.30$, $df = 25$, $p < 0.030$), respectively. Level of proficiency was not a significant predictor: (beta = 0.23, $t = 1.70$, $df = 25$, $p < 0.10$). The three independent variables thus explain more than half the variance. Using Cohen's (1992) criteria for assessing the predictive

Table 1

Total numbers of lemmas, emotion lemmas, word tokens and emotion word tokens in the French IL corpus

Total Number of Lemmas	Total Number of Emotion Lemmas	Total Number of Word Tokens	Total Number of Emotion Word Tokens
7,387	466	33,596	988

power of a set of independent variables in a multiple regression model, the proportion of variance indicates a very large effect size.[2] The mean values and *SD* for the different groups are presented in Table 2.

Prediction of Use of Emotion Word Tokens

The regression of gender, degree of extraversion, and degree of fluency was highly significant ($R^2 = 0.50$, $F(3, 25) = 8.35$, $p < 0.001$). Both gender and level of proficiency were significant predictors (beta = –0.54, $t = -3.7$, $df = 25$, $p < 0.002$ and beta = 0.33, $t = 2.3$, $df = 25$, $p < 0.032$, respectively); the degree of extraversion was not a significant predictor (beta = 0.13, $t = 0.90$, $df = 25$, p = ns). The three independent variables explain half the variance, again

Table 2

Means and SD *in the proportions of emotion lemmas and word tokens according to gender, proficiency, and extraversion levels in the French IL corpus*

Independent Variables	*N*	*M* Proportion Emotion Lemmas	*SD*	*M* Proportion Emotion Word Tokens	*SD*
Gender					
Female	10	8.31%	1.44	4.31%	1.10
Male	19	5.47%	1.63	2.65%	1.01
Proficiency Level					
High	6	7.92%	2.17	3.97%	1.05
Medium	18	6.15%	2.04	3.28%	1.36
Low	5	5.78%	1.40	2.14%	0.55
Extraversion Level					
Extraverts	8	7.39%	1.89	3.51%	1.30
Ambiverts	14	6.60%	2.16	3.33%	1.49
Introverts	7	5.10%	1.52	2.72%	0.85

suggesting a very large effect size (Cohen, 1992). The mean values and *SD* for the different groups are presented in Table 2.

These results suggest that gender, level of proficiency, and extraversion do indeed predict the amount of emotion lemmas and word tokens in our participants' speech extracts. The female participants used a wider range of emotion lemmas and a greater number of emotion word tokens than the male participants. Extraverts used a wider range of emotion lemmas than ambiverts and introverts, and highly proficient speakers used more emotion word tokens than their less proficient peers.

Study 2

Method

The second study examined emotion vocabulary of Russian IL speakers of English. The two languages have been previously shown to conceptualize and verbalize emotions in different ways (Pavlenko, 2002a; Wierzbicka, 1992, 1998, 1999). To begin with, it was argued that Russian is a language that encourages the free expression of emotions to a greater degree than English (Wierzbicka, 1992). It was also demonstrated that in English, emotions are conceptualized as passive states caused by external and/or past causes; as a result, speakers of English favor adjectives, or exhibit an adjectival pattern, in their description of emotions (e.g., she is angry, he is upset). In contrast, in Russian, emotions are conceptualized as inner activities in which one engages more or less voluntarily; as a result, speakers of Russian favor the use of verbs, or exhibit a verbal pattern, in referring to emotions (e.g., *ona rasserdilas*/she got angry, *on rasstroilsia*/he got upset) (Pavlenko, 2002a, Wierzbicka, 1992, 1999). It was also shown that speakers of Russian make many more connections between emotions and the body than do speakers of English (Pavlenko, 2002a; Wierzbicka, 1998). Therefore, to acknowledge sociocultural and linguistic differences in emotion talk, the second study first deter-

mined the frequency and the range of use of emotion words in the two groups of monolingual subjects describing the same stimuli (examined in-depth in Pavlenko, 2002a), and then compared two groups of Russian IL speakers of English: (1) 20 Russian FL learners, interviewed in Russia and (2) 14 Russian L2 users of English living in the United States. Three variables considered in the study included sociocultural competence, gender, and the type of linguistic material used for elicitation purposes. Based on the literature discussed earlier, three hypotheses have been formulated in the study:

> Hypothesis 1: Socioculturally competent L2 speakers use more emotion lemmas than FL users who have never been exposed to the target language culture.
>
> Hypothesis 2: Female IL speakers use more emotion word tokens and lemmas than male IL speakers.
>
> Hypothesis 3: Type of material has an effect both on the frequency and the range of use of emotion words.

In addition, even though the study focuses on the quantitative aspects of IL vocabulary use, results of the qualitative analysis of the IL data will be mentioned in the discussion.

Participants

Thirty-four university students participated in the experiment. The first group consisted of 20 learners of English as a foreign language (EFL), 10 males and 10 females, aged between 18 and 26 (M = 22.4, SD = 2.7). They had taken English at a high school level (three to five hours a week) for up to six years, and then at the university level for up to four years. All were enrolled in advanced upper-level English classes at the University of St. Petersburg, where they were recruited and tested. None of the participants had ever visited an English-speaking country or had any long-term contact with native speakers of English.

The second group consisted of 14 L2 users of English, eight females and six males, aged between 18 and 26 (M = 20.9, SD = 2.9). All the L2 users, or late bilinguals, learned their English postpuberty, having arrived in the United States between the ages of 16 and 19, and having spent four to seven years there; some came as immigrants, some as students. All were fluent enough in English to be enrolled in regular undergraduate and graduate classes at Cornell University, where they were recruited and tested; none were enrolled in the Intensive English Language Program. All the subjects in the study were administered a sociobiographical questionnaire in order to determine the frequency and degree of contact with the target language and culture, variables that were found to have significant effects on learners' level of sociolinguistic competence (Dewaele & Regan, 2001, 2002; Grabois, 1999). The performance of the FL and L2 users was compared to that of 40 native speakers of Russian, aged between 18 and 26 (M = 22.9, SD = 2.5), and 40 native speakers of English, aged between 18 and 26 (M = 20.1, SD = 1.7), interviewed with the use of the same visual stimuli (Pavlenko, 2002a).

Linguistic Material and Procedure

Two three-minute films, with a sound track but no dialog, were used for narrative elicitation purposes. These films, *The Letter* and *Pis'mo* (The Letter), portrayed a situation that was perceived by many monolingual Americans as a violation of privacy: a roommate reading someone else's letter without his or her permission. The first film of each pair was made in the United States, and the second in Kiev, Ukraine, to examine potential context effects. Ukraine, rather than Russia, was chosen for production cost reasons. As anticipated, although the sequence was actually filmed in an apartment in Kiev, Russian study participants inferred that the action was taking place in an apartment in St. Petersburg.

The participants were interviewed by a female researcher fluent in both Russian and English. Each participant was shown

one film, then given a portable tape recorder and the following instructions: "Please, tell what you just saw in the film." All spoke directly into the tape recorder so that no social interaction with the interviewer would influence their recall. The tape-recorded narratives were subsequently transcribed, coded at the word level, and analyzed with regard to the use of emotion words.[3] The proportions of emotion lemmas and word tokens were calculated for every speech extract. After lemmatization, the list of emotion words used by the participants in their IL English consisted of 92 lemmas with a total of 222 word tokens. A series of analyses of variance (ANOVA) was conducted using first language background, gender, and degree of sociocultural competence as independent variables. Complete lists of emotion lemmas for the different groups can be found in Appendices B to E.

Results

First, we carried out an analysis of the monolingual corpora, i.e., the narratives of 40 Russian and 40 American monolinguals, elicited by the same stimuli. Absolute numbers of word tokens and lemmas produced by the American and Russian monolinguals are presented in Table 3.

To see whether factors such as first language background, gender, and type of material may have affected the proportions of emotion vocabulary in the extracts of the monolinguals, we

Table 3

Number of emotion lemmas and word tokens in the American monolingual corpus and the Russian monolingual corpus

Monolinguals	*N*	Total Number of Emotion Lemmas	Total Number of Word Tokens	Total Number of Emotion Word Tokens
Americans	40	66	8,325	270
Russians	40	96	7,517	253

performed a number of one-way ANOVAs with fixed effects. Three-way ANOVAs allowed us to check for any interaction effects.

First, language background turns out to have no effect on our data: American and Russian monolinguals use the same proportion of emotion lemmas ($F(1, 78) = 0.14, p$ = ns) and emotion word tokens ($F(1, 78) = 0.13$, p = ns) in their description of the film material (see Table 4). The two groups also produced a similar number of word tokens (270 in the American narratives, and 253 in the Russian ones, which is nonsignificantly different: ($t(78) = 1.30, p$ = ns). They do differ, however, in the richness of the emotion vocabulary produced, with Russian monolinguals employing 1.5 times as many different emotion lemmas (group total: $n = 96$) as the Americans (group total: $n = 66$).[4]

Gender does have a significant effect on the proportion of both emotion lemmas ($F(1, 78) = 4.93, p < 0.029, (\eta^2 = 0.06)$ and emotion word tokens ($F(1, 78) = 4.43, p < 0.039, \eta^2 = 0.05$). Female monolinguals use more emotion lemmas and word tokens than male monolinguals (see Table 4). The eta square value is low, suggesting only a small effect size.

Table 4

Means and SD *for the proportions of emotion lemmas and word tokens in the monolingual corpora*

		Emotion Lemmas		Emotion Word Tokens	
Group	*N*	Mean	*SD*	Mean	*SD*
American, female, *Letter*	10	5.57	2.08	4.54	1.44
American, female, *Pis'mo*	10	4.08	2.80	3.34	2.21
American, male, *Letter*	10	4.31	1.64	4.25	1.42
American, male, *Pis'mo*	10	3.16	2.24	2.39	1.56
Russian, female, *Letter*	10	5.05	1.95	4.30	1.89
Russian, female *Pis'mo*	10	4.32	1.82	3.74	1.47
Russian, male, *Letter*	10	3.83	1.52	3.42	1.10
Russian, male, *Pis'mo*	10	3.69	1.85	2.82	1.61

Type of material has a marginal significant effect on the proportion of emotion lemmas ($F(1, 78) = 3.82, p < 0.054, \eta^2 = 0.05$) and a highly significant effect on the proportion of emotion word tokens: $F(1, 78) = 8.5$, $p < 0.005$, $\eta^2 = 0.10$). The retellings of *The Letter* are richer in emotion vocabulary than those of *Pis'mo* (see Table 4). However, this effect explains no more than 10% of the variance. The three-way ANOVA analysis reveals no interaction effects between any of the three independent factors. These results can be visualized as shown in Figure 1.

To look at the possible effect of gender, type of material, and sociocultural competence, we compared the English IL performance of the 20 St. Petersburg students (FL) (10 female and 10 male) and the 14 late bilinguals (L2) (eight female and six male). Absolute numbers of word tokens and lemmas in this IL corpus are presented in Table 5.

Three one-way ANOVAs with FL/L2, gender, and type of material as fixed effects show that type of material is the only variable to have an effect on the proportion of emotion lemmas, and that this effect is weak. The retellings of *Pis'mo* tend to contain more emotion lemmas ($F(1, 32) = 2.61$, $p < 0.11$, $\eta^2 = 0.08$) than *The Letter* (see Table 6). The proportion of emotion word tokens in

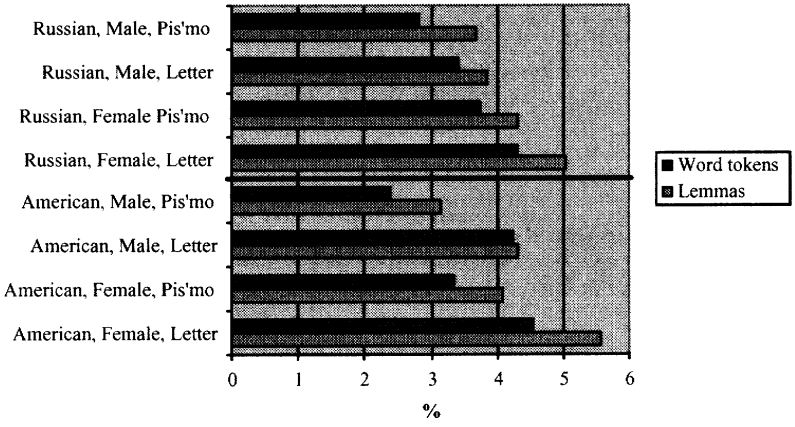

Figure 1. Mean proportions of emotion lemmas and word tokens in the American and Russian monolingual corpora

Table 5

Number of emotion lemmas and word tokens in the English IL corpus

Bilinguals	*N*	Total Number of Emotion Lemmas	Total Number of Word Tokens	Total Number of Emotion Word Tokens
FL	20	41	3,084	123
L2	14	51	2,635	99

both sets of data is not significantly different ($F(1, 32) = 0.64, p =$ ns).

Sociocultural competence and gender have no significant effect on either emotion lemmas ($F(1, 32) = 0.27, p =$ ns) and ($F(1, 32) = 0.18, p =$ ns), respectively, or emotion word tokens ($F(1, 32) = -0.01, p =$ ns) and ($F(1, 32) = 0.00, p =$ ns), respectively (see Table 6). A three-way ANOVA revealed a significant interaction effect between sociocultural competence and gender on the proportion of emotion lemmas ($F(1, 26) = 4.49, p < 0.044, \eta^2 = 0.07$) and a marginal significant interaction between these factors on the proportion of emotion word tokens ($F(1, 26) = 4.0, p = 0.055, \eta^2 = 0.04$). The female FL participants used more emotion vocabulary than the male FL participants, whereas the female L2 participants used less emotion vocabulary than their male counterparts (see Table 6). However, the low values of eta square suggest that these interaction effects are weak.

Discussion

The results of the two studies show that different variables may have different effects on the use of emotion words in IL in different contexts. Gender is the strongest predictor of the use of both emotion lemmas and word tokens in our corpus of advanced French IL and in the corpus of American and Russian monolinguals but not in the corpus of English IL. Level of profi-

Table 6

Means and SD *for the proportions of emotion lemmas and word tokens in the English IL corpora*

		Emotion Lemmas		Emotion Word Tokens	
Group	*N*	Mean	*SD*	Mean	*SD*
FL, female, *Letter*	5	5.20	1.88	1.23	1.23
FL, female, *Pis'mo*	5	6.81	1.78	5.19	2.09
FL, male, *Letter*	5	4.82	1.27	4.12	0.41
FL, male, *Pis'mo*	5	4.97	2.82	3.59	2.09
L2, female, *Letter*	5	3.92	1.21	3.49	1.52
L2, female, *Pis'mo*	3	5.46	1.17	3.74	0.70
L2, male, *Letter*	5	5.43	3.02	4.15	2.60
L2, male, *Pis'mo*	1	8.70	—	7.01	—

ciency predicts the proportion of emotion word tokens but not the proportion of emotion lemmas in the French IL corpus. The degree of extraversion does predict the use of emotion lemmas but not emotion word tokens in the advanced French IL corpus. The degree of sociocultural competence does not affect the proportion of emotion lemmas in the Russian IL corpus. Type of material influences the use of both emotion lemmas and word tokens by monolingual native speakers of English and Russian but does not significantly affect the use of either by FL and L2 speakers of English. To sum up, the findings of the first study partially support Hypothesis 1 (language proficiency), fully support Hypothesis 2 (gender), and partially support Hypothesis 3 (extraversion). The findings of the second study do not support Hypothesis 1 (sociocultural competence), partially support Hypothesis 2 (gender), and partially support Hypothesis 3 (type of material). So, what have we learned from these studies and where do we go from here?

Sociocultural Competence

Our quantitative findings demonstrate that acculturated Russian L2 users of English do not use more emotion vocabulary in their elicited narratives than advanced Russian FL users of English. They do exhibit, however, important *qualitative* differences in the use of emotion vocabulary that differentiate them from Russian FL users of English and from Russian monolinguals.[5] Many of the L2 users when speaking both English and Russian behave like monolingual Americans, favoring the adjectival, rather than the verbal, pattern of expressing emotions and using change-of-state verbs, such as "to become," in their descriptions (for an in-depth discussion, see Pavlenko, 2002b). These results warrant further attention to the ways acculturation interacts with emotion scripts and vocabulary, at times resulting in transformation of personal emotion scripts, insightfully described by Eva Hoffman, a Polish-English bilingual:

> My mother says I'm becoming "English." This hurts me, because I know she means I'm becoming cold. I'm no colder than I've ever been, but I'm learning to be less demonstrative. . . . Perhaps my mother is right, after all; perhaps I'm becoming colder. After a while, emotion follows action, response grows warmer or cooler according to gesture. I'm more careful about what I say, how loud I laugh, whether I give vent to grief. The storminess of emotion prevailing in our family is in excess of the normal here, and the unwritten rules for the normal have their osmotic effect. (Hoffman, 1989, pp. 146–147)

These findings also underscore the need to triangulate data in future studies of emotion vocabulary because differences that do not surface in a quantitative analysis may appear in a qualitative one. Thus, with regard to sociocultural competence, it is possible that familiarity with culture-specific emotion scripts affects the choice of emotion vocabulary rather than its amount (Pavlenko, 2002b).

Language Proficiency

The results of the first study demonstrate that language proficiency does not influence the range of emotion lemmas used but does affect the frequency of use of emotion word tokens, with more advanced speakers using more emotion word tokens in their speech. Here we assume that speakers of French and Dutch in Belgium have fairly similar emotion scripts and sociocultural representations. Thus it is possible that, at lower levels of proficiency, IL speakers of French are experiencing a certain lexical handicap, visible particularly when it comes to more emotional topics (Rintell, 1984, 1990). It is also possible that our learners' performance exhibits the detachment effects described so well in the literature on bilingualism (Amati-Mehler, Argentieri, & Canestri, 1993; Anooshian & Hertel, 1994; Bond & Lai, 1986; Gonzalez-Reigosa, 1976; Javier, 1989; Javier & Marcos, 1989). Interestingly, some anecdotal evidence from bilingual writers points in the same direction. Among the writers who describe the use of their L2 as a distancing device are the Dominican-American Julia Alvarez, the Israeli Arab Anton Shammas, the émigré Spaniard Felipe Alfau, and the Irish prodigy Samuel Beckett (Kellman, 2000). In particular, in the case of Samuel Beckett, many critics see the reason for his shift to French, the language he learned as a schoolboy and did not take up again until his 40s, as a way to avoid the pathos and emotionality he associated with his L1 English. Writing in French, he was able to "restrain his native verbal profligacy" (Kellman, 2000, p. 28) and to adopt a clinical and detached perspective that corresponded better to his broader communicative intentions (Knowlson, 1996). The finding that higher proficiency learners use more emotion words could also be related to the more general finding (Linnarud, 1986; Laufer, 1991) that higher proficiency learners use a greater proportion of low-frequency words (and many emotion words in our corpora fall in that category).

Gender

The combined results of the two studies also suggest that gender is not always the key variable that determines the number and range of emotion words used in speech. While female speakers of French IL and monolingual speakers of English and Russian were found to use a wider variety of emotion words and produce them in greater numbers (see Figure 1), no significant gender effects were found in IL speakers of English (see Figure 2).

Several variables may have contributed to this difference in results. To begin with, the two studies elicited speech in different experimental contexts. In the second study, both men and women saw themselves as performing a recall task, thus using an equally limited number of emotion words (in IL). In contrast, the context in the first study might have induced the female speakers to talk more about emotions. All speakers were interviewed by the same male researcher, hence there were a number of homogeneous and mixed dyads in terms of gender. It is possible that this "unequal gendering" of the interactions might have affected the amount of talk about emotions (Hogg, 1985; Shimanoff, 1983). For instance, Shimanoff (1983) analyzed natural conversations between native

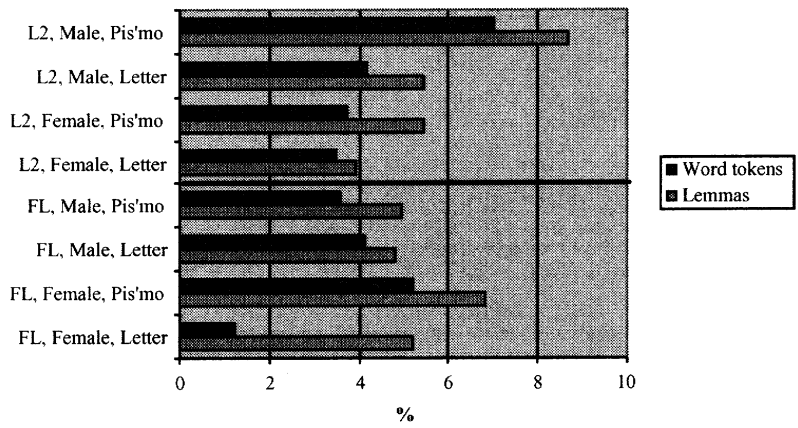

Figure 2. Mean proportions of emotion lemmas and word tokens in the English IL corpora

speakers of English and found that men used more emotion words when they were in opposite-sex dyads, whereas the women's use of emotion words was not affected by the sex of the conversation partner.

However, the difference in experimental context between Study 1 and 2 cannot account for the presence of a gender effect within the monolingual corpora and the absence of it in the bilingual English IL corpora. An important variable to be considered here is the value of emotion talk within particular cultures and ideologies of gender. In Russian, emotionality of one's speech is a highly regarded trait (Wierzbicka, 1992, 1998); at the same time it is a trait that is considered to be more typical of "feminine" speech. Thus, it is not surprising that narratives produced by monolingual Russian females—and to a certain degree by female FL users of English—exhibit higher numbers of emotion words and a higher range of emotion vocabulary than those produced by males. In contrast, in contemporary American English, emotionality is valued rather negatively, while male sensitivity is encouraged. Consequently, in many contexts both genders may use emotion vocabulary in similar ways, with men at times using more emotion words than women (Lutz, 1996; McElhinny, 1995; Shimanoff, 1983). Therefore, it is possible that in the process of acculturating to the new discursive community, young Russian females may find it necessary to become less emotional in their behavior (similar to Hoffman, 1989), while Russian males may face increasing pressures to become more sensitive and open emotionally. As a result, male and female L2 users may converge in their production of L2 emotion vocabulary, as seen in our study.

To sum up, it is possible that ideologies of gender and emotion, the value of emotion talk in a particular speech community, the context of the interaction, and the identity of the interlocutors all affect the choice of emotion vocabulary and the frequency and the range of use of emotion words. In some contexts, such as in the first study and in the monolingual corpora of the second study, gender differences will be apparent, while in others, as in the

bilingual corpora of the second study and in Rintell (1984), there will be no significant gender differences.

Extraversion

The first study also demonstrated that extraversion played a significant role in the range of emotion vocabulary. This does not mean that extraverts feel emotions any differently than introverts, but rather that they may talk more freely and in more detail about them. This argument seems compatible with the view of extraverts as sociable, outgoing, gregarious, talkative, under-aroused individuals (Furnham & Heaven, 1998), in contrast with the introverts as reserved, quiet, and unassertive individuals. If, as research suggests, introverts are over-aroused individuals, they might unconsciously avoid talking about highly emotional matters and hence produce fewer emotion words in order to keep their arousal level from going over the optimal limit.

The extraverts' use of a wider range of emotional words could be linked to the same cause that makes them use more colloquial vocabulary (Dewaele & Furnham, 2000b). Both emotion and colloquial words can be threatening for interlanguage speakers. Inappropriate use of emotion words might affect the image of the self the speaker tries to project and fear of ridicule may thus keep a speaker from using new emotion vocabulary. Similarly, inappropriately used colloquial words may lead to pragmatic failure or, worse, sociolinguistic blunders. Extravert learners who are by nature less anxious and suffer less fear of punishment could be more confident about the completeness of their conceptual representations in the L2 and the resulting sociopragmatic competence in a wide range of registers. As a result, extravert learners may feel that using a wider range of emotion and colloquial words that translate their communicative intentions more accurately is worth the risk of loss of face.

Type of Linguistic Material

Finally, the results of the second study indicate that the type of linguistic material led to significant differences in the use of emotion lemmas and word tokens by the two monolingual groups and to slightly weaker but reversed differences in the bilingual groups. The retellings of *The Letter* yielded a higher proportion of emotion vocabulary among the monolinguals. The bilinguals, on the other hand, tended to produce more emotion vocabulary in the retellings of *Pis'mo*. These results underscore the need to examine the context of linguistic interaction, the topic of the conversation, and the influence of the type of linguistic material in the future studies of emotion vocabulary.

Directions for Future Research

To sum up, we have established that the two languages/cultures in consideration, the level of language proficiency, introversion/extraversion, gender of the speakers (and possibly their interlocutors), context of the interaction, and the type of linguistic material in question may influence the range and the frequency of use of emotion words in interlanguage. These findings raise a number of interesting questions and provide useful directions for future studies of emotion discourse of L2 users.

To begin with, together with the other studies discussed above, our two studies point to an interesting area where the relationship between language, emotion, and cognition could be productively investigated. Past research examined the role of affect in L2 learning and use (Anooshian & Hertel, 1994; Arnold, 1999; Bond & Lai, 1986; Clachar, 1999; Schumann, 1994, 1997, 1999). We suggest that the learning, representation, and use of IL emotion vocabulary could become another fertile area for investigation in SLA and bilingualism, and see three areas as particularly important for future investigation.

First of all, our studies pointed to five factors that may play a role in the process of use of L2 emotion vocabulary. It remains

to be seen how these and other factors impact the process of learning of emotion vocabulary, an inquiry that should always start with comparing emotion vocabularies, concepts, and scripts of any two linguistic communities and cultures in question. For instance, while it is clear that conceptual similarity will significantly ease the process of L2 learning and use (Pavlenko, 1999, 2000), the role of gender in the process of second language socialization and the learning of emotion vocabulary remains more enigmatic (Pavlenko, 2001a, 2001b). It is quite possible that in some contexts, male and female learners may be socialized into slightly different speech communities. Intriguing evidence comes from a study by Bijvoet (2002) who found gender differences in stylistic lexical competence in the L2 Swedish of Finnish immigrants to Sweden. In particular, she demonstrated that adult men had more difficulties in perceiving stylistic nuances in Swedish than adolescents and women. Bijvoet explains these differences by different activities in which the men and women in the study were involved, suggesting that women studied more for a profession, participated in language courses, established social contacts across ethnic borders, and acted as cultural intermediaries for the family.[6] Of particular importance for further investigation is the relationship between the perceived emotionality of the topic and the quality of IL production (Clachar, 1999) where the manipulation of topic, the type of linguistic material involved, and the type of emotion involved (Kelly & Hutson-Comeaux, 1999) might shed additional light on the relationship between emotions and IL speech and writing.

Second, while our studies focused on the frequency and range of the use of emotion words in IL speech, no examination of emotion discourse would be complete without considering the precise deployment of emotion words, metaphors, and scripts by L2 users. Looking at a wide range of languages and cultures, researchers need to examine how emotion concepts, scripts, and semantic networks are restructured in the process of second language socialization, and how differences between emotion

concepts and scripts of particular languages/cultures in question may influence the process of acculturation.[7]

Third, while the two present studies were limited to production, future inquiries also need to look at comprehension and, in particular, at the identification and categorization of emotions by IL speakers in cases where cultural scripts differ between the communities in question (Rintell, 1984). We see this type of inquiry as particularly important for the study of intercultural communication and miscommunication.

In short, we believe that we have provided a useful first step in the investigation of emotion vocabulary in interlanguage by delineating several variables that may influence the frequency and range of the use of emotion words in IL. We are now looking forward to further discussion of the multiple and complex ways language, emotion, and cognition interact in second language socialization and use.

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Notes

[1]For a discussion of possible gender effects in second language learning and bilingualism, see also Pavlenko, 2001a, 2001b.

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

[3]Using the same selection criteria as in Study 1.

[4]This finding was confirmed in a separate study on lexical diversity using the same corpus but including a higher number of subjects (N = 258) with 75 monolingual Russians and 80 monolingual Americans (Dewaele and Pavlenko, in press). A three-way ANOVA, with type of material, gender, and speaker group as fixed independent effects and lexical diversity values as dependent variable, showed a highly significant effect for speaker group ($F(4, 253) = 26.87$, $p < 0.001$, eta squared = 0.33). A Fisher's PLSD post-hoc test revealed highly significant differences between American and Russian monolinguals ($p < 0.001$), the latter obtaining higher values.

[5]For a detailed discussion, see Pavlenko, 2002b.

[6]See also Lainio, 1998; Pavlenko, 2001b.

[7]For further discussion, see Pavlenko, 2002b.

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Appendix A

Emotion Lemmas in French IL Produced by 29 Dutch L1 Speakers (188 Lemmas, 988 Word Tokens)

Nouns (*n* = 42)	*Adjectives* (*n* = 92)	*Verbs* (*n* = 39)	*Adverbs* (*n* = 15)
amour (love)	à l'aise (to be at ease)	aider (to help)	assez (enough)
avantage (advantage)	amoureux (in love)	aimer (to love)	beaucoup (many)
besoin (need)	amusant (funny)	amuser (to amuse)	bien (good)
caresse (caress)	antipathiques (not nice)	attirer (to attract)	certainement (certainly)
catastrophe (catastrophe)	beau/elle (beautiful)	avouer (to admit)	complètement (completely)
confiance (confidence)	bête (stupid)	baiser (to make love)	extrêmement (extremely)
connard (bastard)	bizarres (bizarre)	crier (to scream)	franchement (frankly)
courtisane (prostitute)	bon (good)	désoler (to upset)	justement (justly)
dégoût (disgust)	borné (narrow-minded)	détester (to detest)	mal (badly)
dépression (depression)	calme (calm)	détruire (to destruct)	mieux (better)
désavantages (disadvantage)	capable (capable)	énerver (to annoy)	préféremment (preferably)
disputes (quarrel)	certain (certain)	ennuyer (to be bored)	terriblement (terribly)
envie (craving)	cher (dear)	espérer (to hope)	tristement (sadly)
escapade (fugue)	chic (chic)	étonner (to surprise)	sûrement (certainly)
faillite (failing)	comique (funny)	exagérer (to exaggerate)	vraiment (really)
faute (mistake)	confortable (comfortable)	exciter (to excite)	
folie (madness)	content (happy)	fâcher (to anger)	
goût (taste)	corrupt (corrupt)	fatiguer (to tire)	
hypocrisie (hypocrisy)	dangereux (dangerous)	fichu (to be down)	
hypocrite (hypocrite)	décadent (decadent)	flipper (to freak out)	
idéalisme (idealism)	dommage (regrettable)	forcer (to force)	

Appendix A (cont.)

Nouns (n = 42)	*Adjectives* (n = 92)	*Verbs* (n = 39)	*Adverbs* (n = 15)
intérêt (interest)	dur (insensitive)	frustrer (to frustate)	
jalousie (jealousy)	égoïste (egoistical)	être gêné (to be ashamed)	
marre (fed up)	embêtant (annoying)	intéresser (to interest)	
morale (moral)	ennuyante (boring)	motiver (to motivate)	
motivation (motivation)	évident (evident)	obliger (to make smb do smth)	
pardon (pardon)	extrême (extreme)	plaire (to please)	
peur (anxiety)	facile (easy)	pleurer (to cry)	
plaisir (pleasure)	familier (familiar)	préférer (to prefer)	
prestige (prestige)	fantastique (fantastic)	profiter (to profit)	
problème (problem)	fatal (fatal)	protester (to protest)	
pute (hooker (insult))	fiable (reliable)	réussir (to succeed)	
reproche (reproach)	fidèle (faithful)	rire (to laugh)	
risque (risk)	fort (strong)	rompre (to break smth)	
salope (bitch (insult))	fou (crazy)	séduire (to seduce)	
sentiment (sentiment)	gai (gay, cheerful)	subir (to suffer)	
stress (stress)	gentil (sweet)	supporter (to put up with)	
succès (success)	grave (serious)	sympathiser (to sympathise)	
support (support)	heureux (happy)	tuer (to kill)	
sympathie (sympathy)	humoristique (funny)		
trac (fear)	hystérique (hysterical)		
volonté (will)	idéal (ideal)		
	idiot (idiot)		
	immoral (immoral)		

important (important)
impossible (impossible)
impressionnant (impressive)
intelligent (intelligent)
intéressant (interesting)
intolérant (intolerant)
jaloux (jealous)
joli (beautiful)
juste (just)
lourd (heavy)
macho (macho)
magnifique (magnificent)
malade (ill)
mauvais (bad)
méchant (mean)
meilleur (better)
monotone (monotonous)
négatif (negative)
nerveux (nervous)
neutral (neutral)
obéissant (obedient)
paresseux (lazy)
parfait (perfect)
plaisant (pleasant)
poli (polite)
positif (positive)

Appendix A (cont.)

Nouns (n = 42)	*Adjectives* (n = 92)	*Verbs* (n = 39)	*Adverbs* (n = 15)
	psychologique (psychological)		
	ridicule (ridiculous)		
	rigolant (amusing)		
	romantique (romantic)		
	sain (sane)		
	sec (dry)		
	senfoutiste (uncaring)		
	sérieux (serious)		
	sévère (strict)		
	sexy (sexy)		
	solidaire (supportive)		
	stupide (stupid)		
	submissif (submissive)		
	suffisant (sufficient)		
	sûr (certain)		
	sympa (nice)		
	sympathique (friendly)		
	terrible (terrible)		
	tranquille (quiet)		
	triste (sad)		
	vivant (vivacious)		
	vrai (true)		

Appendix B

Emotion Lemmas in L1 English Produced by 40 American Monolinguals (66 Lemmas, 270 Word Tokens)

Nouns (n = 16)	*Adjectives* (n = 33)	*Verbs* (n = 14)	*Adverbs* (n = 3)
anger	angry	annoy	alone
death	annoyed	care	angrily
depression	bad	comfort	emotionally
disbelief	bothered	console	
disgust	concerned	cry (-ing)	
distress	confused	deal	
emotion	crazy	distress	
feeling (-s)	depressed (-ing)	feel	
intrusion	disappointed	intrude	
love	distraught	invade	
mood	distressed	resent	
pity	disturbed (-ing)	sigh	
privacy	dramatic	sob	
problem	embarrassed	upset	
romance	emotional		
tears	frustrated (-ing)		
	mad		
	melancholic		
	passionate		
	perplexed		
	personal		

Appendix B (cont.)

Nouns (n = 16)	*Adjectives* (n = 33)	*Verbs* (n = 14)	*Adverbs* (n = 3)
	pissed (off)		
	private		
	romantic		
	sad (-dened)		
	shocked		
	surprising		
	terrible		
	tragic		
	traumatic		
	upset		
	worried		
	wrong		

Appendix C

Emotion Lemmas in L1 Russian Produced by 40 Russian Monolinguals (96 Lemmas, 253 Word Tokens)

Nouns (*n* = 24)	*Adjectives* (*n* = 29)	*Verbs* (*n* = 34)	*Adverbs* (*n* = 9)
chuvstva (feelings)	dorogoi (dear, darling)	chuvstvovat' (to feel)	gnevno, razgnevanno (in anger, in wrath)
dosada (annoyance)	dushevnoe (mental, soulful)	delit'sia (to share)	muchitel'no (in torment, in agony)
emotsii (emotions)	gorestnyi (sad, pitiful)	gorevat' (to grieve)	nedovol'no (with displeasure)
gore (grief, sorrow)	grustnaia (sad)	ispytyvat' (to experience)	nekhorosho (badly)
liubov' (love)	isporchennoe (spoiled)	khmurit'sia (to frown)	neokhotno (unwillingly)
napriazhenie (tension)	khoroshii (good)	lezt' [v dela] (to interfere)	nervno (nervously)
nastroenie (mood)	lichnoe (personal, private)	liubit' (to love)	neveroiatno (incredibly, surprisingly)
neliubov' (non-love, absence of it)	liubimyi (beloved)	metat'sia (to rush around in despair)	trevozhno (anxiously)
neudovol'stvie (displeasure)	liubovnyi (love, as in 'love letter')	ne nravit'sia (to dislike, be disliked)	veselo (joyfully, cheerfully)
oshchushchenie (sensation)	napriazhena (tense)	nervnichat' (to be nervous)	
otchaianie (despair)	nedovol'naia (dissatisfied)	ogorchat' (to upset someone)	
pechal' (sadness, sorrow, grief)	negativnaia (negative)	perezhivat' (to suffer things through)	
perezhivania (feelings, emotions)	nepriiatnoe (unpleasant)	porazit' (to shock, to strike)	

Appendix C (cont.)

Nouns (n = 24)	*Adjectives* (n = 29)	*Verbs* (n = 34)	*Adverbs* (n = 9)
rasstroistvo (frustration, disorder)	neradostnaia (unhappy)	potriasti (to shock, to astound)	
razocharovanie (disappointment)	nevmeniaemaia (crazy, mad, beside oneself)	prochuvstvovat' (to feel through)	
reaktsiia (reaction)	ogorchena (saddened)	raskryvat'sia (to open up)	
simpatiia (liking)	opechalena (chagrined)	rasserdit'sia (to get angry)	
slezy (tears)	pechal'naia (sad, chagrined)	rasstroit'sia (to get upset)	
sochuvstvie (compassion)	plokhoe (bad)	razdrazhat' (to irritate)	
soperezhivanie (empathy)	podavlennoe (depressed)	razocharovyvat' (to disappoint)	
sostoianie (state)	potriasennaia (stunned)	reagirovat' (to react)	
trevozhnost' (anxiety)	rasstroennaia (upset)	sochuvstvovat' (to sympathize)	
vpechatlenie (impression)	razdrazhena (irritated)	soperezhivat' (to empathize)	
vtorzhenie (invasion)	siiaiushchaia (brightened)	tronut' (to touch, to affect)	
	spokoinoe (peaceful)	ubivat'sia (to grieve)	
	veseloe (cheerful, upbeat)	udivliat' (to surprise)	
	vozmushchena (indignant)	ukhudshat'sia (to worsen)	
	vzvolnovannaia (agitated)	uspokaivat' (to calm someone)	
	zadumchivaia (pensive)	vmeshivat'sia (to interfere)	
		volnovat', vzvolnovat' (to upset)	

vzdykhat’ (to sigh)
zadet’ (to touch)
(za-)plakat’ (to cry)
zlit’ (to anger, to irritate)

Appendix D

Emotion Lemmas in English FL Produced by 20 Russian L1 Speakers (41 Lemmas, 123 Word Tokens)

Nouns (n = 7)	*Adjectives* (n = 28)	*Verbs* (n = 6)
emotions	alone	bear
feelings	angry	calm down
hope	annoyed	comfort
mood	anxious	cry
problem (-s)	astonished	disturb
spirit	bad	feel
trouble	crushed	
	depressed	
	difficult	
	disappointed	
	frightened	
	frustrated	
	gay (i.e. cheerful)	
	glad	
	good	
	irritated	
	miserable	
	nervous	
	pleasant	
	psychological	
	sad	

surprised
terrible
unhappy
unpleasant
upset
worse
wrong

Appendix E

Emotion Lemmas in English L2 Produced by 14 Late Russian L1 Speakers (51 Lemmas, 99 Word Tokens)

Nouns (n = 16)	*Adjectives* (n = 22)	*Verbs* (n = 12)	*Adverbs* (n = 1)
anger	afraid	bother	alone
death	angry	console	
desperation	annoying	cry	
disturbance	ashamed	die	
emotions	bad	feel	
frustration	disappointed	grieve	
heart	distressed	intrude	
illness	disturbed	like	
pain	dramatic	love	
privacy	emotional	sigh	
puzzlement	frustrated	upset	
reactions	happy		
sadness	irritated		
sorrow	nervous		
state	personal		
stress	preoccupied		
	puzzled		
	sad		
	surprised		
	unhappy		
	upset		
	worried		