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level of analysis that appears to motivate the exponents of that view: the level of phenomenology.

I focus on two problems. First, the norms we invoke in evaluating emotions are dissimilar to those we employ in judging the deliverances of sense perception. Although both emotion and perception are subject to criteria of correctness *vis a vis* the situation in which they occur, the latter is judged in terms of how well it presents something to the subject, while the former is evaluated in terms of how the subject ought to respond to the situation. That response can take three forms: cognitive, attitudinal, or volitional. I examine briefly all three with a view to assess whether they might, in some sense, permit the identification of emotion with perception.

The second problem concerns the exact nature of the kind of perception to which emotion is identified. Employing the tripartite distinction between sensory datum, interpretive content, and awareness of an object as intended by consciousness, I explore the possibility of locating value qualities at the level of the meaning of the act intending the perceptual object. However, seeing values as features of the meaning of what is perceived

seems to imply *either* that values first figure in the content of a judgement about what is perceived, or that the percept is itself conceptually loaded so as to enable the subject to perceive, say, a remark as slighting, complimentary, or duplicitous, before a separate act of judging or interpreting that remark is launched. The former disjunct amounts to the rejection of the perceptual approach in favour of a judgementalist theory of emotion. The latter disjunct entails that defenders of the perceptual model of emotion might need to abandon, or at least, rethink, the commitment to the non-conceptual account of perceptual content.

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## EMOTIONAL INTENSITY AND VALENCE IN BILINGUAL AUTOBIOGRAPHICAL MEMORIES

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In this study, we examined the effect of language and self-concept on emotional expression (intensity and valence) in autobiographical memories of Russian-English bilinguals. While some researchers find that the native language carries more emotional intensity than the second language (e.g., Bond & Lai, 1986; Gonzalez-Reigosa, 1976), others find no differences across the two languages (e.g., Lubin et al, 1985; Pizarro, 1995). Although the exact pattern continues to be debated, language choice does appear to influence accessibility of memories and of their emotional qualities (for a review, see Schrauf, 2000), so that some memories become more accessible or carry higher intensity when accessed in a particular language. To account for such differences, Marian and Neisser (2000) proposed the language-dependent memory hypothesis. Based on the encoding specificity principle, the language-dependent memory hypothesis suggests that accessibility of memories is influenced by a match between languages of encoding and retrieval, so that memories become more accessible when the language of retrieval corresponds to the language in which the memories were originally encoded. For the present study, we predicted that bilinguals' autobiographical memories would carry more emotional intensity when the language spoken at retrieval matched the language spoken during encoding. In addition, we examined the effect of self-concept (as

located along the individualism-collectivism continuum) on expression of emotional valence in bicultural bilinguals. Emotional valence has been found to vary across individualistic and collectivist cultures, with individualistic self-concept correlating positively with affect balance and subjective well-being (Basabe et al. 2002), and correlating negatively with depression (e.g., Sastry & Ross, 1998), as well as with social anxiety (e.g., Kleinknecht et al 1997). Building on these findings, we examined the relationship between self-concept and emotional valence of bilingual autobiographical narratives, predicting that memories associated with a collectivist culture would be more negative than memories associated with an individualistic culture.

Forty-seven Russian-English bilinguals, 23 males and 24 females, were interviewed in both languages, with language order counterbalanced. They were prompted with a cue word and asked to describe an event from their life that the cue brought to mind. After all memories were recorded, participants were asked to indicate their age and the language used at the time of each event. Memories were coded as Russian at encoding, English at encoding, or Mixed Russian and English at encoding. Memories were also coded for main agent (on a 1 to 5 scale, where 1 denoted self as main agent and 5 denoted someone else as main agent), emotional intensity (on a 1 to 6 scale, where 1 denoted no emotion and 6 extremely high intensity), and emotional valence (on a 1 to 7 scale, where 1 denoted completely negative affect and 7 denoted completely positive affect).

A second coder coded 10% of all data; point-to-point reliability between coders was 90%.

Emotional intensity across languages was analyzed using a 2-way repeated-measures ANCOVA with language of retrieval (Russian or English) and language of encoding (Russian or English) as independent variables. Results revealed no main effect of language at encoding or language at retrieval, but a significant interaction between the two,  $F(1,25)=5.845$ ,  $p<0.05$ . A post-hoc paired-sample t-test revealed that participants produced narratives that were more emotionally intense when the languages of encoding and retrieval matched ( $M=3.01$ ,  $SE=0.09$ ) than when they did not match ( $M=2.76$ ,  $SE=0.11$ ),  $t(43)=2.83$ ,  $p<0.01$ .

A 3-way ANOVA for each memory (with language of retrieval, language of encoding, and main agent as independent variables, and emotional valence as the dependent variable) revealed a main effect of agent,  $F(4,673)=10.30$ ,  $p<0.01$  and a main effect of language of encoding,  $F(1,673)=3.20$ ,  $p<0.05$ , but no effect of language of retrieval. That is, bilinguals' memories were more positive when the main agent in the memory was others- or group-oriented than when it was the individual self. Moreover, language at encoding influenced valence, so that memories encoded in Russian were least positive ( $M=4.01$ ,  $SE=0.14$ ), compared to memories encoded in English ( $M=4.47$ ,  $SE=0.19$ ) or in a mixed Russian and English environment ( $M=4.57$ ,  $SE=0.21$ ), with the latter reported as most positive.

Finally, a multilevel modeling approach was used to examine emotional intensity and affect by accounting for variability both within items and within participants. Preliminary findings corroborated the ANOVA results and suggested that autobiographical memories tended to be higher in emotional intensity when the languages of encoding and retrieval matched than when they did not match. We did not find emotional intensity to be stronger in bilinguals' native or second languages, instead it was the match or mismatch between languages of encoding and retrieval that influenced intensity. The idea that emotion is strengthened by a reinstatement of encoding language at the time of retrieval carries applied implications for services to bilingual clients, such as psychotherapy. It is consistent with the hypothesis of language-dependent memory (Marian & Neisser, 2000) and suggests that language functions similarly to other types of context (e.g., Davies & Thompson, 1988) in its influence on accessibility and emotional quality.

Memories encoded in Russian were rated as less positive than memories encoded in English; this result is consistent with findings of more intense and positive emotion in individualistic than in collectivist cultures (Basabe et al, 2002), but may also be a result of other differences (such as, for example, economic well-being and pre-selected immigrant group). At the same time, bilinguals' memories were reported as more positive when the main agent in the memory was other- or group-oriented than when it was self-oriented. The find-

ing that for these participants, more positive emotions are associated with group memories, while more negative emotions are associated with self-oriented memories suggests that bicultural Russian-English bilinguals may have a highly-developed interpersonal self, where interactions with others are valued and carry positive connotations. This, together with the fact that mixed memories were rated as most positive, suggests that the self of bicultural Russian-English bilinguals is integrated across cultures and that an amalgam of both cultures results in the most positive affect, a finding consistent with reported psychological benefits of biculturalism (LaFromboise, Coleman, & Gerton, 1993). In sum, these findings suggest that the emotional content of bilinguals' narratives is modulated by language spoken at any given time, by self-concept, and by the interaction between the two. Future work in this area may contribute to understanding the relationship between emotion and language in memory, within and outside bilingual contexts.

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