

Concepts of Emotion and Dimensional Ratings of Italian Emotion Words in Pre-adolescents

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Introduction

We shall present 2 studies that are part of a larger research project that investigated pre-adolescents' knowledge of emotion concepts - i.e., how pre-adolescents conceptualize emotions, and whether emotion categories are conceptually organized around *prototypes*, as found for adults (e.g., Fehr & Russell, 1984) - by analysing the meaning and the organization of the emotional lexicon.

Studies in cognitive science suggest that prototypical cognitive models can explain many aspects of emotional meaning. Within the prototype view, emotion concepts are fuzzy categories and are organized around their prototypical exemplar: the membership in the emotion category varies in degree as a function of the concept's family resemblance to a prototypical exemplar.

We assume that: *i*) emotional experiences are multicomponential (e.g., Frijda, 1986), *ii*) the variety of emotion terms is related to how people conceptualise emotions, and *iii*) emotion terms denote one or more specific features or components of the emotion (e.g., valence, intensity, duration), or its causes and consequences, or a pattern of such features.

Following the approach used by Zammuner (1998), two measures of prototypicality of emotion concepts were assessed, as follows: (1) the likelihood that a word is listed spontaneously by subjects as an instance of the emotion category (see also Galli, Zammuner & Romagnoli, 2005); (2) the likelihood that a word is quickly judged as referring to an emotion on a dichotomous rating task (word categorization). The main hypothesis was that prototypicality is a complex (often implicit) evaluation of a set of subjective-state aspects denoted by the word, i.e., *valence* (or hedonic tone), *intensity* and *duration*.

Method

In the first experimental study, each of 67 pre-adolescents (aged 10 to 14) judged 62 Italian emotion terms (and 62 filler terms) answering the question "Is [the term] an emotion?" by giving a Yes or Not judgement as quickly as possible (*word categorization task*, with reaction time as dependent variable). In the second study, three independent samples of pre-adolescents (N total: 278 subjects), assessed 62 emotion terms on the dimensions of *valence*, *intensity* and *duration*, answering pen-and-pencil questionnaires.

Results and Conclusion

On the average, 78.6 % of subjects correctly judged the 62 emotion terms. The majority of terms were correctly judged: 15 terms were judged correctly by at least 90% of subjects (e.g., *happiness*, *love*, *sadness* and also, *jealousy*, *embarrassment*, *calm*); other terms, e.g., *indignation*, *delight*, were judged instances of the emotion category by less than 50% of subjects. Correct reaction times, and correct emotion-term categorization frequencies, were negatively correlated ($r = -.84$, $p < .05$). Correlational analyses showed significant correlations among the various evaluations of emotion terms given by subjects; evaluations were correlated with frequency of free listing of emotion exemplars, and with mean reaction times of correct emotion-term categorization. Two regression analyses were performed to test the main hypothesis that valence, intensity and duration predict each prototypicality measure. Results showed that *valence* was the most important predictor of prototypicality, valence is likely to be more influenced by folk theory than other aspects. In addition, *duration* (but not *intensity*, as found for adults: see Zammuner 1998) appeared to be the dimension that subsumes information about other emotion features. In sum, obtained results confirm that pre-adolescents' emotion concepts are fuzzy categories, and that prototypicality judgements are summary-like evaluations of a complex computation that considers different emotional aspects denoted by a word.

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