The need to represent emotion-related states in EmotionML

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Marc Schröder

Introduction

The scientific literature distinguishes between emotions, which are short-lived, typically intense episodes, often triggered by an eliciting event and implying a certain action tendency, from emotion-related states which share some but not all properties with such fullblown emotions. This distinction is recognised in the current EmotionML working draft (Schröder et al., 2010) in the Glossary and in the definition of the <category> element, which both make it explicit that the specification intends to cover both emotions and emotion-related states. However, the list of "centrally defined default vocabularies" seems to list only vocabularies of fullblown emotions.

It seems worth discussing the question whether vocabularies for emotion-related states can and/or should be included in the EmotionML specification.

Types of emotion-related states in the scientific literature

Various classifications of emotion-related (or "affective") states have been proposed. Scherer (2005) proposes to distinguish between various types of affective states based on a set of "design feature" criteria, such as event focus, rapidity of change, synchronisation, behavioural impact, duration etc. On this basis, he distinguishes emotion from *preferences*, *attitudes*, *moods*, *affect dispositions* and *interpersonal stances*.

Cowie (2010) investigated different "emotion-related conditions" with a view to their commonality in everyday life. In an "ambulatory" study, ten subjects were called by phone at random times, for a total of 50 times per subject, over a period of several weeks; they were asked to indicate the type of state that they currently experienced. On this basis, common emotion-related states can be distinguished from rare ones. The common states, which were experienced more than 10% of the time, were: *mood* (36%), *stance towards object/situation* (26%) and *altered state of arousal* (22%). Various types of emotion, taken together, were experienced in less than 6% of the cases. Social conditions, including *interpersonal stances* and *interpersonal bonds*, were experienced 7% of the time.

These numbers indicate the practical relevance of descriptions of such emotion-related states. Specifically, it would seem necessary to ensure that states of *mood*, *stance towards object/situation* (which according to Cowie is the same as what Scherer calls *attitudes*), *altered states of arousal, interpersonal stances* and *interpersonal bonds* can be described in EmotionML.

On including emotion-related state vocabularies in EmotionML

In order to include a vocabulary for describing a given type of emotion-related state such as *mood*, *stance* etc. into EmotionML, it would be necessary to find a list of such terms in the literature which aims to be somewhat comprehensive or representative. It remains to be seen whether such lists exist.

Other possibilities for describing emotion-related states in EmotionML

At least approximately, it may already be possible to describe most emotion-related states given the current syntax of EmotionML. For example, *mood* may reasonably be represented using the dimension of *valence* in the Fontaine, Scherer, Roesch and Ellsworth (FSRE) set of emotion

dimensions (Fontaine, Scherer, Roesch, & Ellsworth, 2007); similarly, altered states of arousal can be represented using the FSRE dimension *arousal*.

Stances towards objects/situations and *interpersonal stances/bonds* might be represented, e.g., by using terms from one of the category vocabularies in the EmotionML specification together with the <reference> element to indicate the object or person that the state is "triggered by" or "targeted at".

Conclusion

There is evidence suggesting that emotion-related states are much more frequent in everyday life than fullblown emotions. Consequently, EmotionML, as a vehicle for representing emotions and related states in the use cases of annotation, recognition and synthesis, should be able to represent such states.

At the workshop, it may be worthwhile to discuss the extent to which the existing representations and vocabularies in EmotionML are already suited for this task. To what extent can emotion vocabularies be used to represent emotion-related states? Is such reuse appropriate or misleading? Are there representations and/or vocabularies that should naturally be added to EmotionML to better describe emotion-related states? Once these questions are answered, it may be possible to formulate in the specification some recommendations for representing emotion-related states in EmotionML.

References

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