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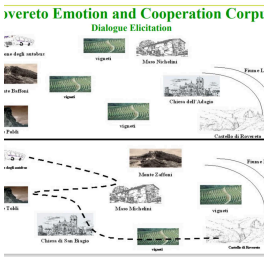
RECC Corpus Stimulus set and protocol



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We use this protocol and it's working

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Abstract

The Rovereto Emotion and Cooperation Corpus (RECC) is a new resource collected to investigate the relationship between cooperation and emotions in an interactive setting. Previous attempts at collecting corpora to study emotions have shown that this data are often quite difficult to classify and analyse, and coding schemes to explore emotions are usually found not to be reliable. We collected a corpus of task-oriented (MapTask-style) dialogues in Italian, in which the segments of emotional interest are identified using psycho-physiological indexes (Heart Rate and Galvanic Skin Conductance), which are highly reliable. We then annotated these segments with novel multimodal annotation schemes for cooperation (in terms of effort) and facial expressions (an indicator of emotional state). High agreement was obtained among coders on all the features. The RECC corpus is, to our knowledge, the first resource with psycho-physiological data aligned with verbal and nonverbal behaviour data. Attached are the giver and follower maps.

Attachments

PNG

RECC.png

1.6MB

1 **SET UP**

RECC consists of 21 interactions, 14 with a confederate, for a total of 280 min audiovisual and psycho-physiological recordings (heart rate and skin conductance). The psycho-physiological response was recorded and synchronized with video and audio recordings. The psycho-physiological data were recorded with a BIOPAC MP150 system. The face-to-face interactions were recorded with 2 Canon VC-C50i Digital Cameras and two free-field Sennheiser half-cardioid microphones with permanently polarized condensers before each speaker. Using the Map task, we elicited unscripted yet controlled conversations(Anderson et al. 1991). Two participants, the Giver and the Follower, have a map with some features in front of them. The maps were not identical. The Giver's task was to drive the other participant, the Follower, from a starting point (the bus station) to the finish (the Castle of Rovereto). The features between the start and the finish were in different positions and had different names. We decided not to advise the participants about those differences. Therefore, it was up to them to discover the differences between the two maps. The Giver and the Follower were native Italian speakers and did not know each other before the task. As in the HCRC Map Task, our corpus interactions have two conditions: full screen and short screen. In the full-screen condition, there was a barrier between the two speakers. In the short screen condition, a short barrier between the speakers allowed Giver and Follower to see each others' faces. The screen condition was counterbalanced.

2 **PROCEDURE**

Their heart rate, skin conductance, and temperature were measured during the task. A confederate at given time points interrupted the task and gave negative feedback on their task performance. The aim was to elicit negative emotions such as anger and/or frustration. In the emotion elicitation condition, the Follower or the Giver can alternatively be a confederate, aiming to anger the other participant. Before the task, we recorded the psycho-physiological baseline of each participant for five minutes. Then we recorded the first 3 min of the psycho-physiological outputs from the beginning of the task, which we called task condition. Here the speaker was not challenged by the confederate. After that, the confederate (the same person in all the interactions) performed uncooperative utterances in carefully controlled circumstances by acting negative emotion elicitation lines at minutes 4, 9 and 14 of the interaction.
The following lines were given by the confederate when acting the Follower role:
– You are sending me in the wrong direction; try to be more accurate!;
– It's still wrong. You are not doing your best. Try harder! Again, from where you stopped;
– You're obviously not good enough at giving instructions.

A control group was also recorded while playing the Map Task with the same maps but without confederate.
Eye contact, communicative role (Giver and Follower) and gender (male or female) were counterbalanced.