The Role of Context in Interpreting Emotional Body Language in Robots

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Abstract : In the emerging world of human-robot interaction, people and robots will interact socially in real-world situations. This paper presents the results of an experimental study probing the interaction between situational context and emotional body language in robots. 34 people rated video clips of robots performing expressive behaviours in different situational contexts both for emotional expressivity on Valence-Arousal-Dominance dimensions and by selecting a specific emotional term from a list of suggestions. Results showed that a contextual information enhanced a recognition of emotional body language of a robot, although it did not override emotional signals provided by robot expressions. Results are discussed in terms of design guidelines on how an emotional body language of a robot can be used by roboticists developing social robots.