

The Effect of Heart Rate and Valence of Emotions on Perceived Intensity of Emotion

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Abstract : This study aims to find out if heart rate variability and valence of emotion have an effect on perceived intensity of emotion. Psychology undergraduates (N = 60) from the University of the Philippines Diliman were shown 10 photographs from the Japanese Female Facial Expression (JAFFE) Database, along with a corresponding questionnaire with a Likert scale on perceived intensity of emotion. In this 3 x 2 mixed subjects factorial design, each group was either made to do a simple exercise prior to answering the questionnaire in order to increase the heart rate, listen to a heart rate of 120 bpm, or colour a drawing to keep the heart rate stable. After doing the activity, the participants then answered the questionnaire, providing a rating of the faces according to the participants' perceived emotional intensity on the photographs. The photographs presented were either of positive or negative emotional valence. The results of the experiment showed that neither an induced fast heart rate or perceived fast heart rate had any significant effect on the participants' perceived intensity of emotion. There was also no interaction effect of heart rate variability and valence of emotion. The insignificance of results was explained by the Philippines' high context culture, accompanied by the prevalence of both intensely valenced positive and negative emotions in Philippine society. Insignificance in the effects were also attributed to the Cannon-Bard theory, Schachter-Singer theory and various methodological limitations.

Keywords : heart rate variability, perceived intensity of emotion, Philippines , valence of emotion

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020