

【文献調査】

Machine learning to differentiate between positive and negative emotions using pupil diameter

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1 タイトル

機械学習による瞳孔径を用いた快・不快感情識別

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3 出典

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4 アブストラクト

瞳孔径は個人の感情状態を識別するための信頼可能なパラメータとして示唆されている。本稿では、正と負の感情を検出し、識別するための機械学習技術を提案する。30名の被験者に陽性および陰性の刺激を与え、瞳孔反応を記録した。結果、正及び負の音刺激の処置中に瞳孔拡張において有意な増加を示し、負の刺激に対してより大きな増加を示した。さらに、タスク終了時に陽性刺激と比較して陰性の持続的拡張が認められ、正および負の感情の識別のために精度96.5%、感度97.93%、特異度98%となる機械学習アプローチに利用された。得られた結果は、異なる研究のために設計された、30人の参加者が陽性、陰性の感情を伴う単語を処理しながら記録した別のデータセットを用いて検証された。

5 キーワード

pupillometry, emotion recognition, classification, k-nearest neighbor algorithm, sensitivity analysis

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