

Abstract

Abstract of thesis entitled:

The locus of holistic processing: relationships between the composite effects for facial judgments on identity, emotional expression and gender

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The aim of this study is to examine whether holistic processing, a hallmark of face perception, takes place at an early stage of face processing shared by all facial judgments, or at later stages specific for processing different facial information such as identity, expression and gender. In Study 1, a composite paradigm was used where the two face halves could differ in identity, expression, or both. Participants' performance on recognizing the identity (or expression) from half of the face was influenced by incongruent identity (or expression) from the other half, but unaffected by incongruent expression (or identity) from the other half. This indicates that holistic processing of identity and expression are independent of each other. In Study 2, we found that the magnitude of holistic processing for identity and expression as measured by separate face composite tasks were not correlated across individuals. In Study 3, we also found no correlation between the magnitudes of holistic processing for identity and gender. The dissociation found between holistic processing of

different facial information suggests that holistic processing does not originate from the general visual encoding required for all facial judgments. Instead it emerges later in processes devoted specifically to different facial judgments.

摘要

从 Bruce 和 Young (1986) 面孔识别的模型出发, 面孔的加工要经过最初的结构编码的阶段, 然后经过表情分析、面孔识别单元以及负责加工性别、种族等视觉处理单元, 所以对于表情、面孔身份和性别的加工通路是并行分离的。本研究旨在探讨对面孔的整体加工发生在知觉加工的早期阶段, 例如结构编码阶段, 还是发生在具有任务特定性的知觉加工的晚期阶段。

在研究一中, 实验采用面孔组合范式, 一共有三种不同的面孔组合: 上半张脸和下半张脸的身份相同, 但表情不同; 上半张脸和下半张脸的表情相同, 但身份不同; 上半张脸和下半张脸的身份和表情皆不相同。研究一的结果发现, 当要求被试识别半张脸的身份(或表情)时, 识别表现会受到另半张脸的身份(或表情)相同与否的影响, 然而不会受到另半张脸的表情(或身份)相同与否的影响。说明对面孔身份和对面孔表情的整体加工是彼此独立的。在研究二和研究三中, 从个体差异的角度探讨对面孔身份和表情的整体加工, 以及面孔身份和性别的整体加工之间的关系。结果发现, 无论对面孔身份和表情的整体加工还是面孔身份和性别的整体加工, 它们之间都是彼此独立的。

本研究结果表明, 面孔的整体加工并不发生于知觉加工的早期阶段, 而是发生在知觉加工的晚期阶段。此外, 整体加工具有任务特定性, 取决于对面孔信息(比如身份、表情、性别)的判断。