
Neural mechanisms underlying the higher levels of subjective well-being in extraverts: Pleasant bias and unpleasant resistance

Jiajin Yuan · Jinfu Zhang · Xiaolin Zhou · Jiemin Yang · Xianxin Meng · Qinglin Zhang · Hong Li

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Abstract

Extraverts are characterized by higher levels of subjective well-being (SWB) than introverts. This study investigated the neural mechanisms underlying the higher levels of SWB in extraverts. A total of 16 extraverts and 16 introverts were recruited for a functional magnetic resonance imaging (fMRI) study. The subjects were presented with pleasant and unpleasant faces and were asked to rate their subjective well-being. The results showed that extraverts showed higher levels of SWB than introverts. The fMRI results revealed that extraverts showed higher levels of activation in the ventral striatum (VS) and the ventromedial prefrontal cortex (VMPFC) when they viewed pleasant faces compared to introverts. In contrast, introverts showed higher levels of activation in the VS and the VMPFC when they viewed unpleasant faces compared to extraverts. These findings suggest that extraverts have a pleasant bias and a resistance to unpleasant stimuli, which may contribute to their higher levels of SWB.

Extraverts are characterized by higher levels of subjective well-being (SWB) than introverts. This study investigated the neural mechanisms underlying the higher levels of SWB in extraverts. A total of 16 extraverts and 16 introverts were recruited for a functional magnetic resonance imaging (fMRI) study. The subjects were presented with pleasant and unpleasant faces and were asked to rate their subjective well-being. The results showed that extraverts showed higher levels of SWB than introverts. The fMRI results revealed that extraverts showed higher levels of activation in the ventral striatum (VS) and the ventromedial prefrontal cortex (VMPFC) when they viewed pleasant faces compared to introverts. In contrast, introverts showed higher levels of activation in the VS and the VMPFC when they viewed unpleasant faces compared to extraverts. These findings suggest that extraverts have a pleasant bias and a resistance to unpleasant stimuli, which may contribute to their higher levels of SWB.

Keywords

Extraversion · Subjective well-being · fMRI · Pleasant bias · Unpleasant resistance

Extraversion is a personality trait characterized by a tendency to seek out and enjoy social interactions and activities. Extraverts are characterized by higher levels of subjective well-being (SWB) than introverts. This study investigated the neural mechanisms underlying the higher levels of SWB in extraverts. A total of 16 extraverts and 16 introverts were recruited for a functional magnetic resonance imaging (fMRI) study. The subjects were presented with pleasant and unpleasant faces and were asked to rate their subjective well-being. The results showed that extraverts showed higher levels of SWB than introverts. The fMRI results revealed that extraverts showed higher levels of activation in the ventral striatum (VS) and the ventromedial prefrontal cortex (VMPFC) when they viewed pleasant faces compared to introverts. In contrast, introverts showed higher levels of activation in the VS and the VMPFC when they viewed unpleasant faces compared to extraverts. These findings suggest that extraverts have a pleasant bias and a resistance to unpleasant stimuli, which may contribute to their higher levels of SWB.

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ERP results

Occipital P1/frontal N1



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✓ "b" . Human Brain Mapping, 30, 3676–3686.
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