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Positive mood induction enhances performance –
briefly be happy and do well

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Special Thanks to:

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All the Participants

Introduction

Some of us have spent years researching the effects of psychoactive substances or other factors (e.g. Sleep loss) on mood and performance. The belief was that the agent (e.g. Alcohol, caffeine) working psychopharmacologically, produced direct effects on the CNS - *RESULTING* in changes in mood and performance.

CNS action -> modifies neural/brain activity -> alters mood, performance

This simple study set out to assess the effects of a positive mood induction on performance
mood change -> performance change?

Background

Rauscher Shaw and Ky (1993) visuo-spatial-temporal reasoning IQ scores were temporarily (10-15mins.) enhanced after listening to 10 minutes of Mozart piano sonata (Mozart sonata for two pianos K. 488 Vs relaxation tape and silence). This was labelled the ‘Mozart effect’.

Rausher et al (1995) repeated with a spatial paper folding and cutting task. Bangerter and Heath (2004) – misunderstanding of limitations of the study (see also Raucher and Hinton 2006).

Support from further studies – e.g. Jausovic et al (2006) improved performance in spatial rotation task after listening to Mozart; but not just Mozart’s music (e.g. Ridout et al 1998).

Conclusion

Listening to some forms of music enhances spatial performance.

Does the enhanced performance simply result from increased arousal – or some other ‘cortical effect’ of listening to music (e.g. The ‘Trion’ model of enhanced pattern activity/ability – Lang and Shaw 1990).

Background contd.

Thompson et al 2001 – Mozart (happy) Vs albinoni (sad) – enjoyment, arousal, and mood investigated. Significantly greater arousal and mood with Mozart, and spatial task performance. Concluded pleasant and enjoyable stimuli induce positive arousal and mood – labelled the ‘arousal and mood hypothesis’.

Supported by later research – for example:

Schnellenberg et al 2006 – cognitive task performance increase depended on enjoyment arousal of the music – rather than music per se.

Several studies have supported the arousal and mood hypothesis – including:

Jones et al 2006, Mamarella et al 2006, Schellenberg et al 2006, Roth and Smith 2008).

Background contd.

Whilst music has been shown to positively enhance performance of other types of cognitive task (e.g. Backward digit span – Steele et al 1997, mathematical ability – Rascher 2002, Taylor and row 2012).

Music and visual attention – Chen et al 2013.

Could a spatially rich activity enhance cognitive ability by increasing enjoyment arousal and mood? - Jones et al 2006.

Aims

The present study set out to investigate whether positive mood induction using a creative drawing task could enhance performance (as well as positive mood).

Method

Thirty-one healthy adults (19-26, mean 22 years; males:females 12:19) participated in 2 counterbalanced mood induction conditions each of 10 minutes duration. Positive mood was induced through a creative drawing task of happy memories, friends etc., whilst neutral mood was induced by reading a leaflet on UK facts and figures. Mood induction was followed by Bond and Lader VAS mood assessment, and cognitive performance using a test battery (Penscreen.com). A 15 minute 'cool down' watching a neutral DVD separated mood conditions.

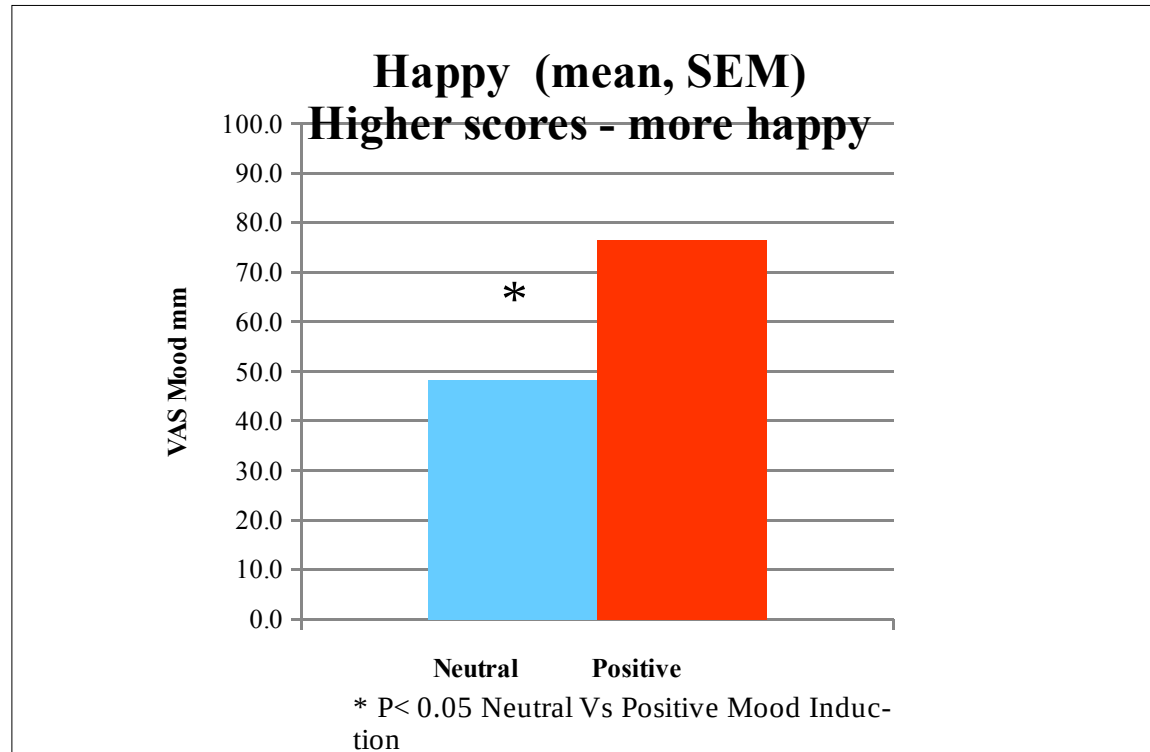
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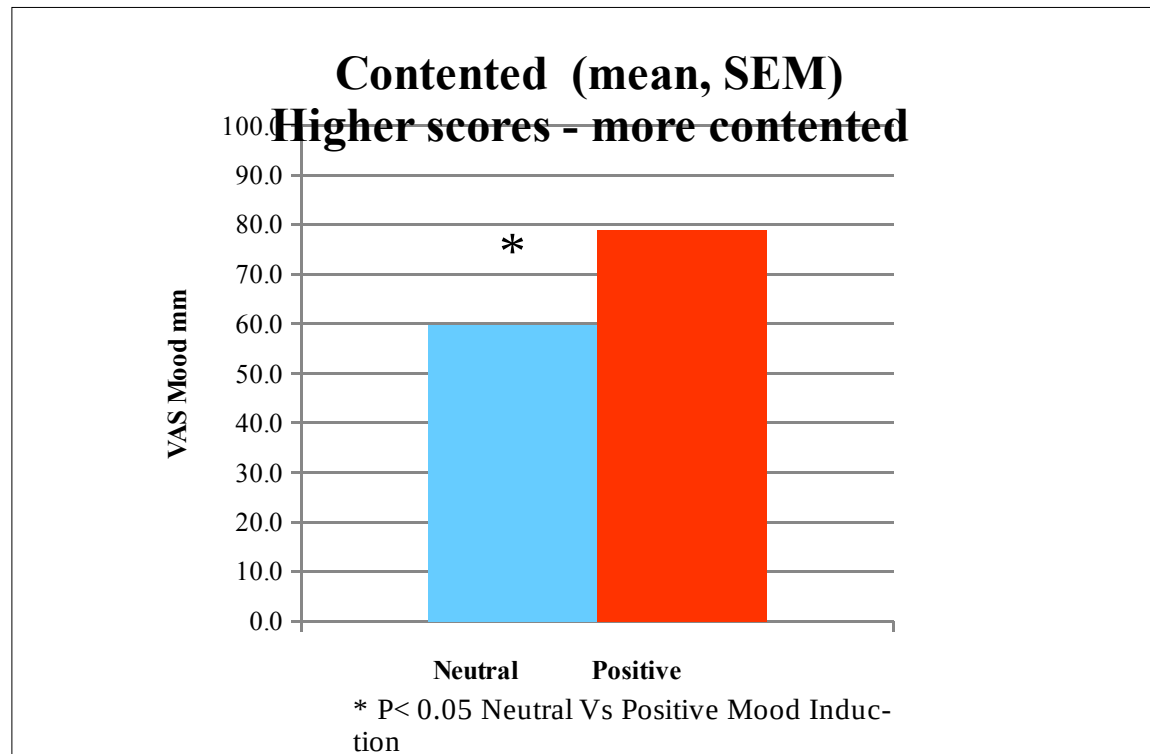
Strengths

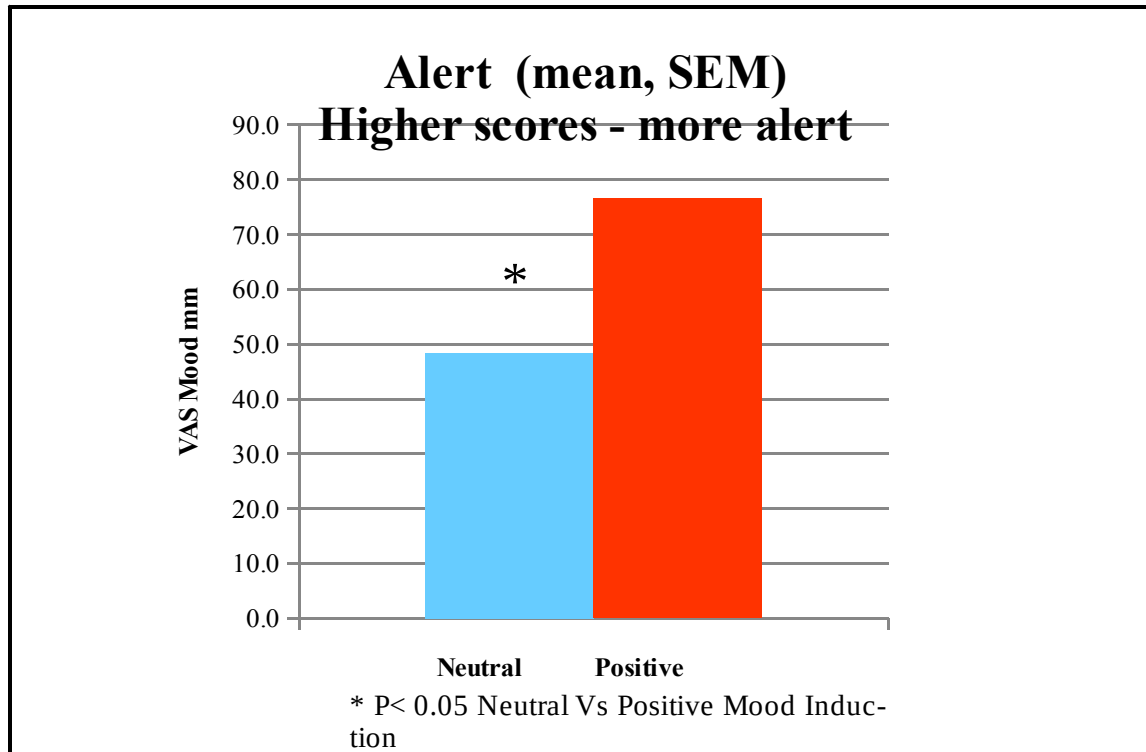
Weaknesses

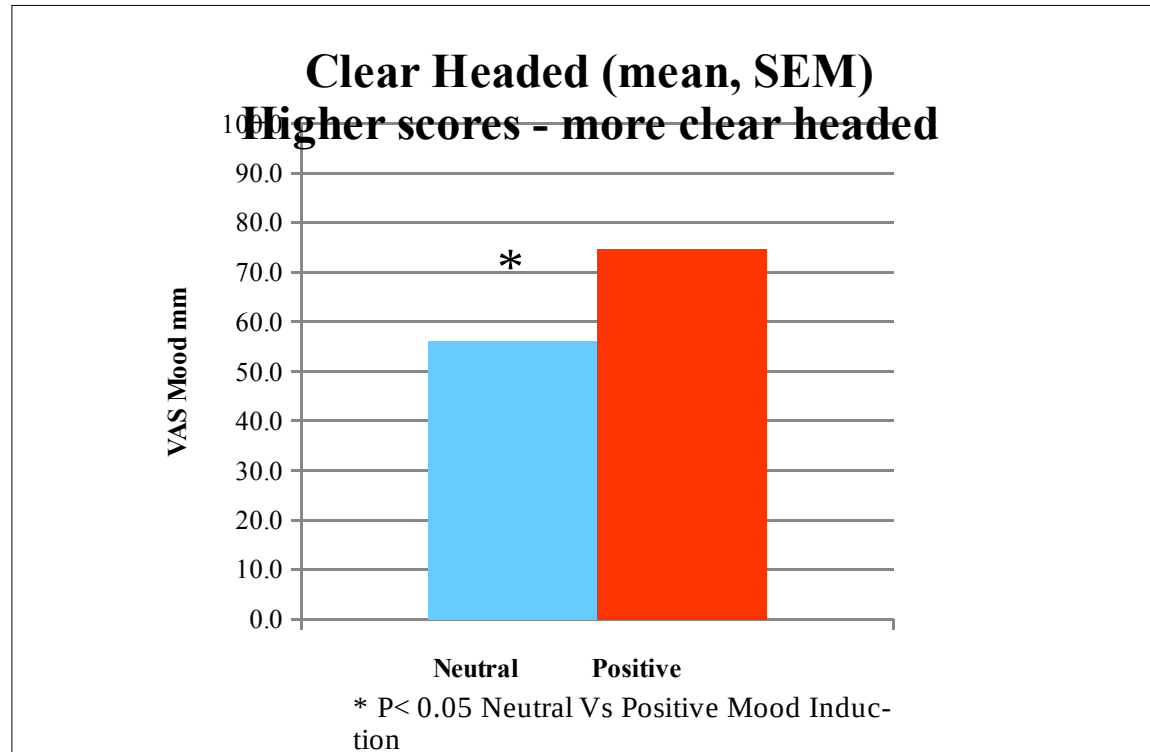
The positive mood induction task included a motoric element. Although participants were not continuously drawing – but reflecting on memories and creating drawings.

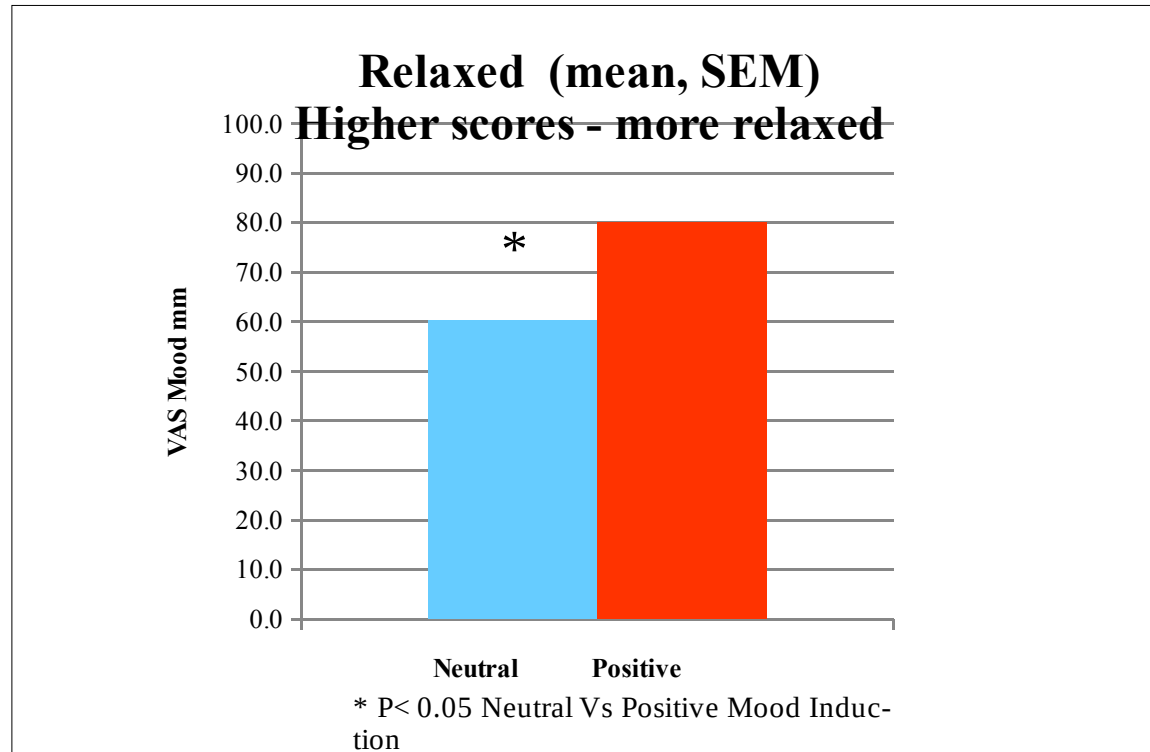
However, we know that simple motor actions can speed responses (e.g. Chewing gum). So, a better comparator and/or motor action control needed for next phase.....

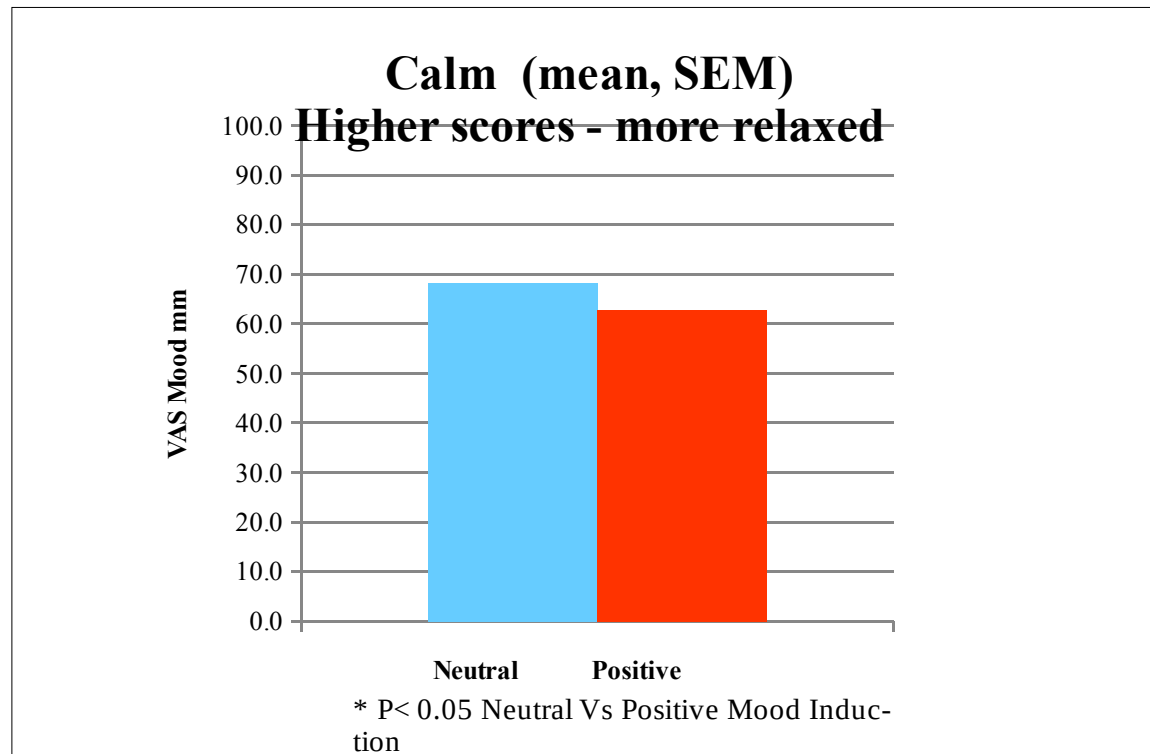










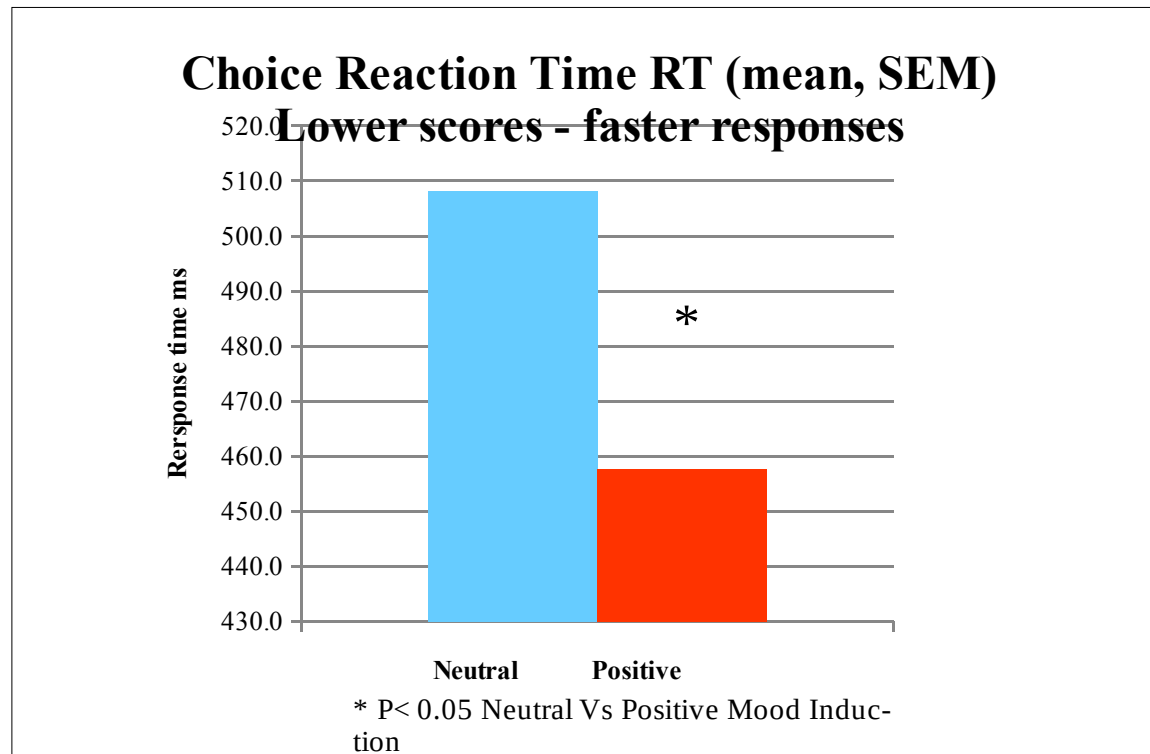


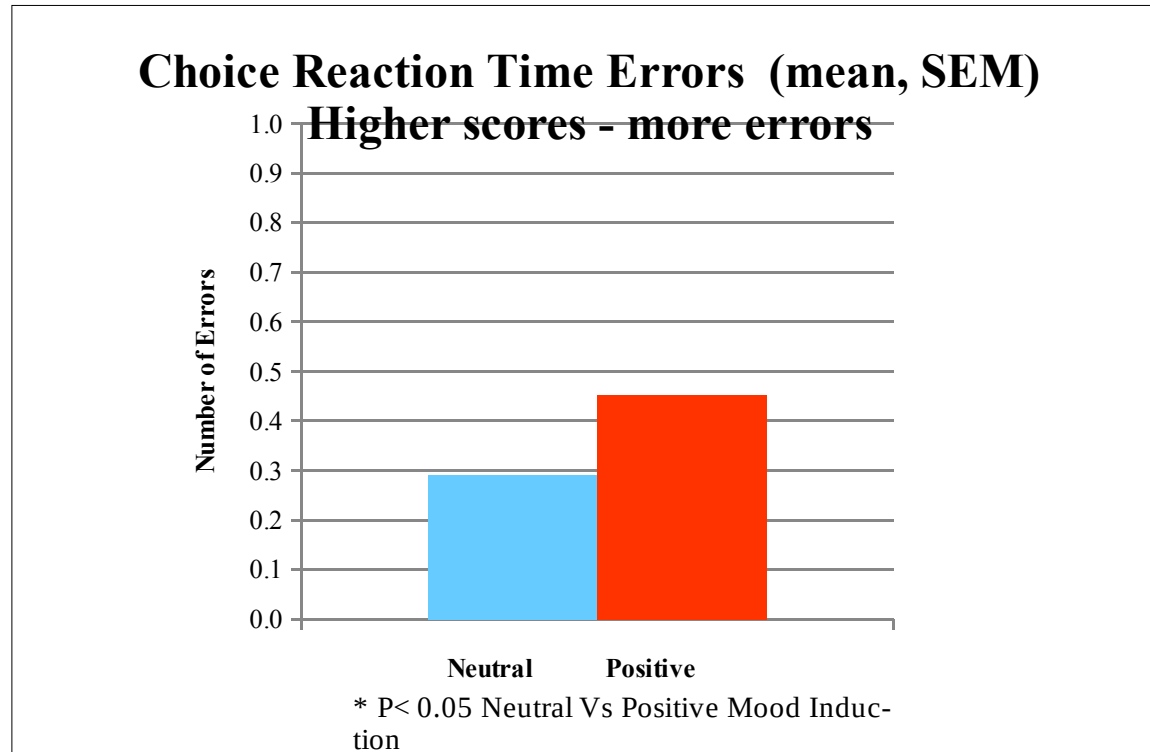
VAS Mood – Summary

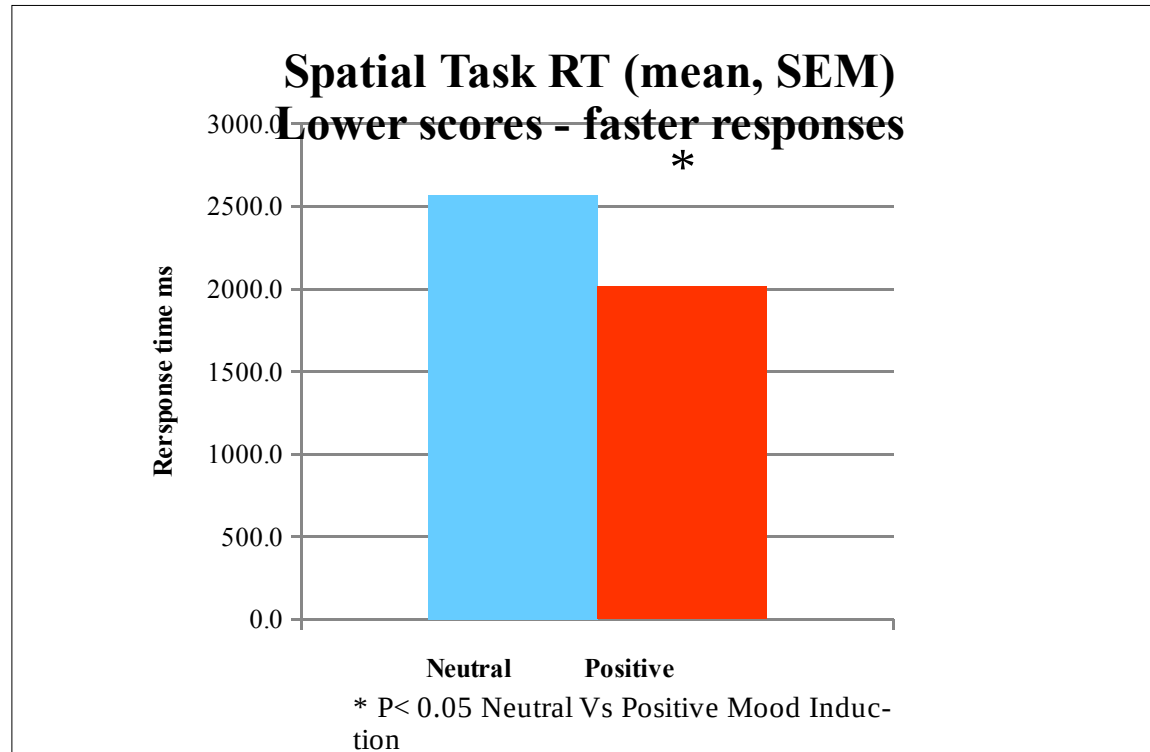
The positive mood induction technique (remembering and then drawing happy memories) was successful in that participants reported being more happy and contented compared to the neutral task. There was also an increase in alertness and feeling clear headed - but not more 'excited'. Interestingly, participants also reported being more relaxed after positive mood induction.

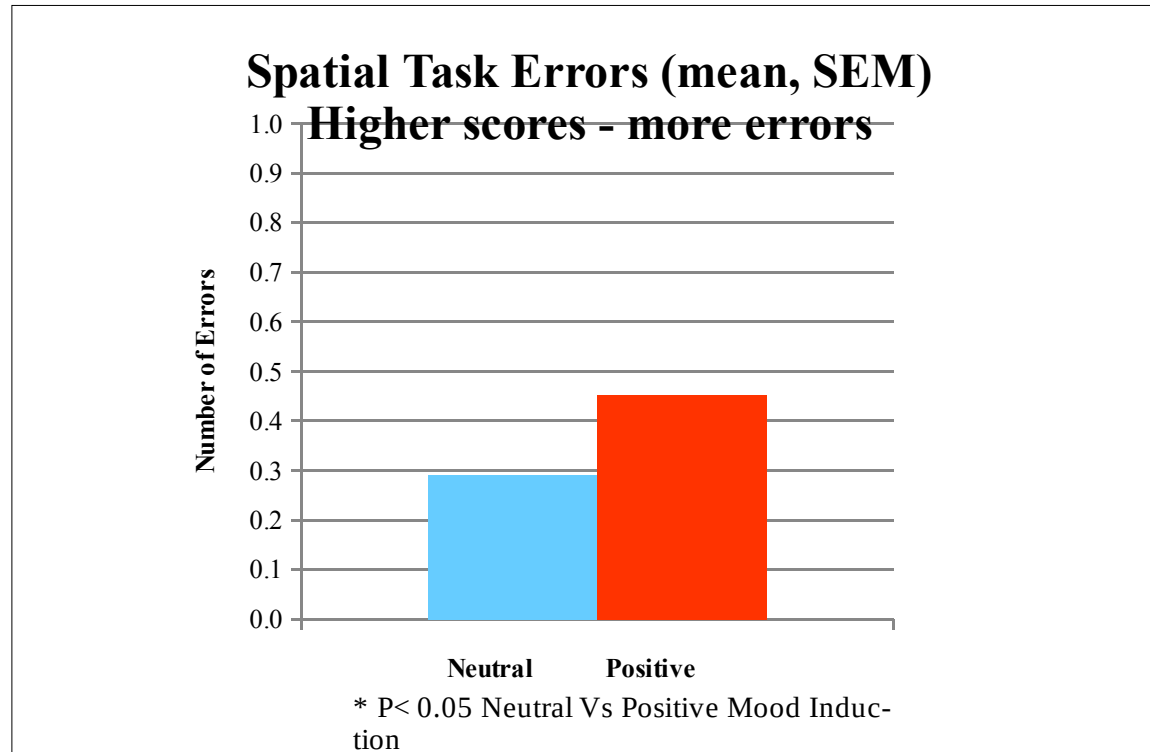
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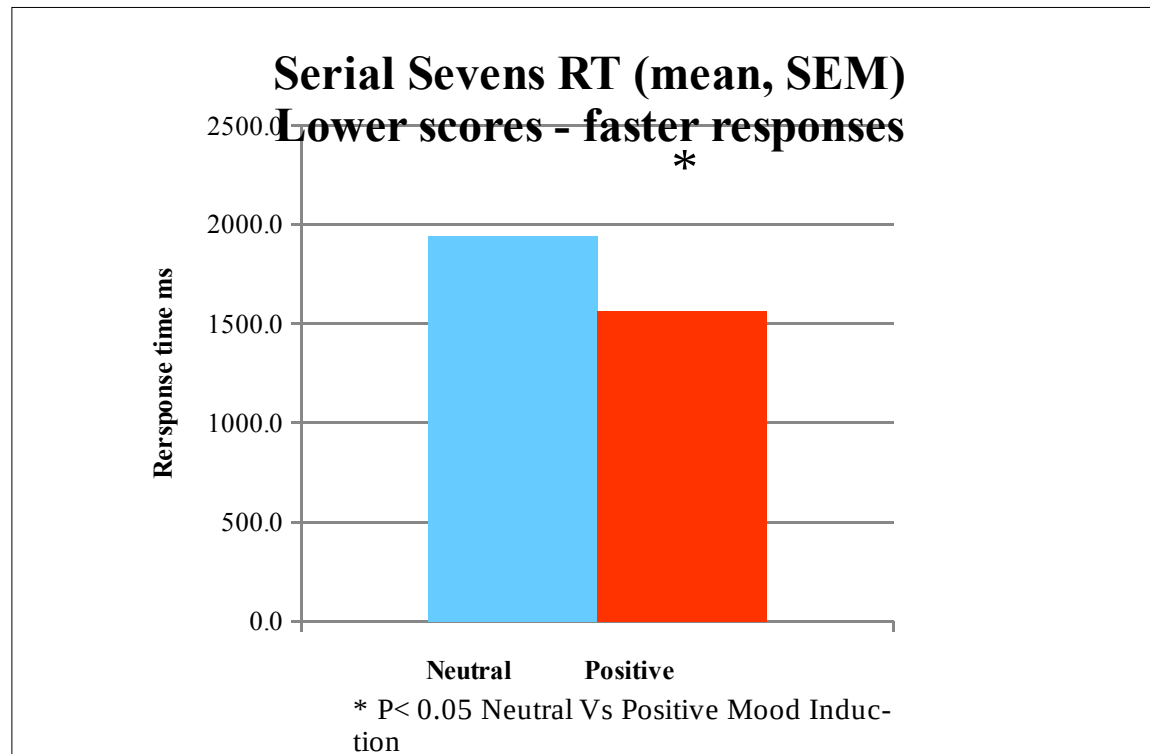
Performance Results (Penscreen)

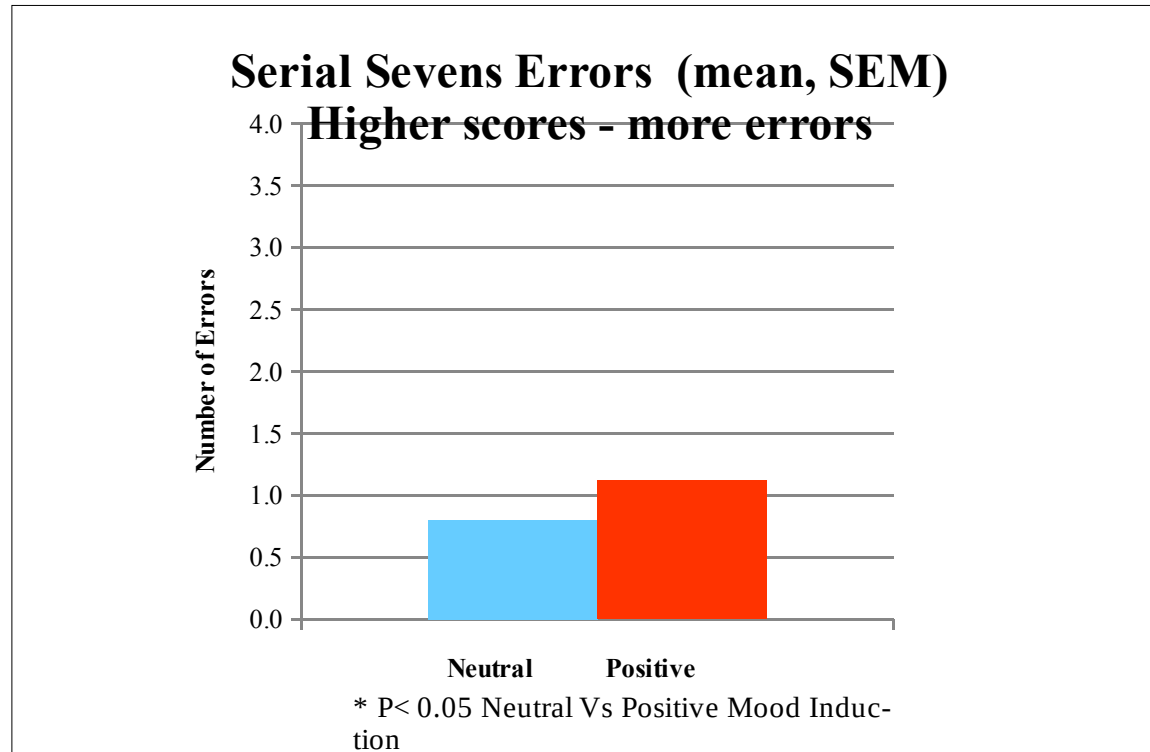


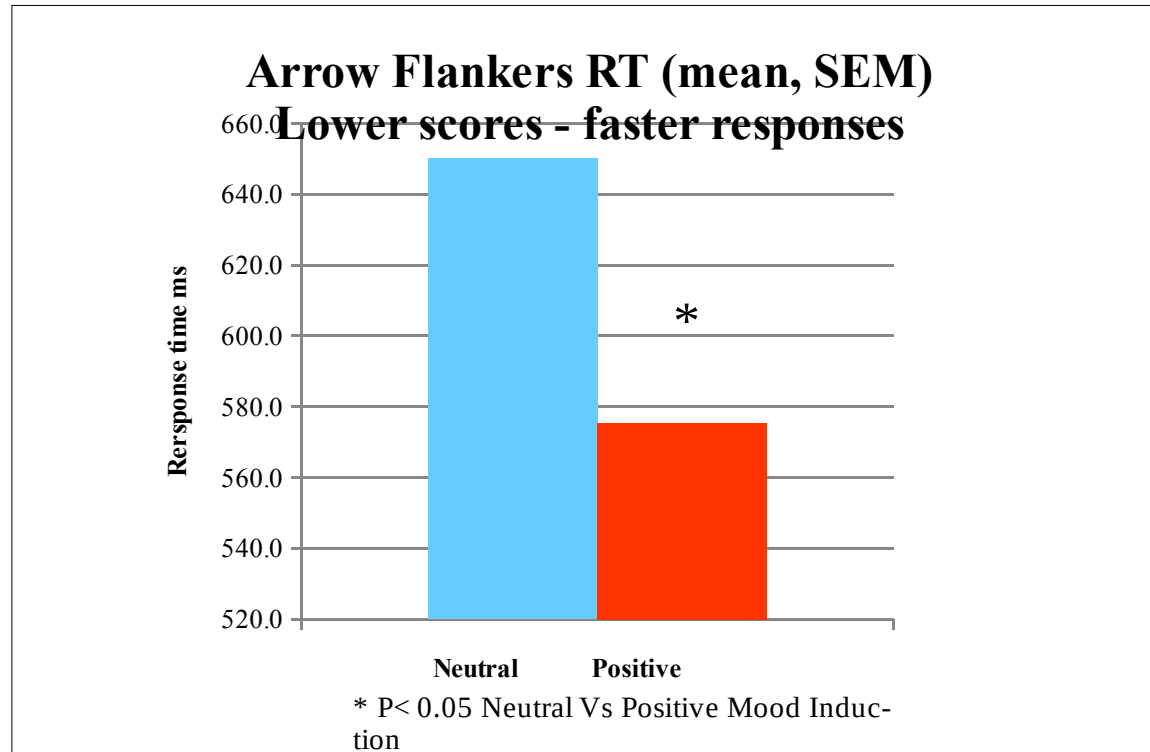


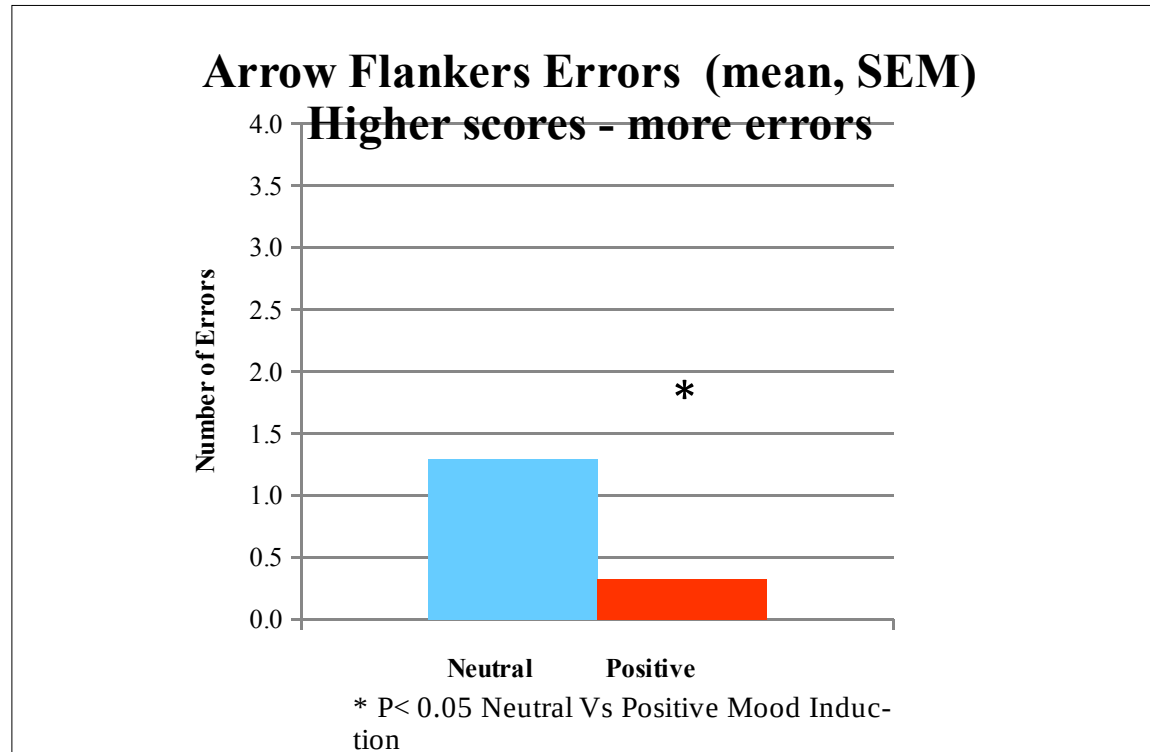


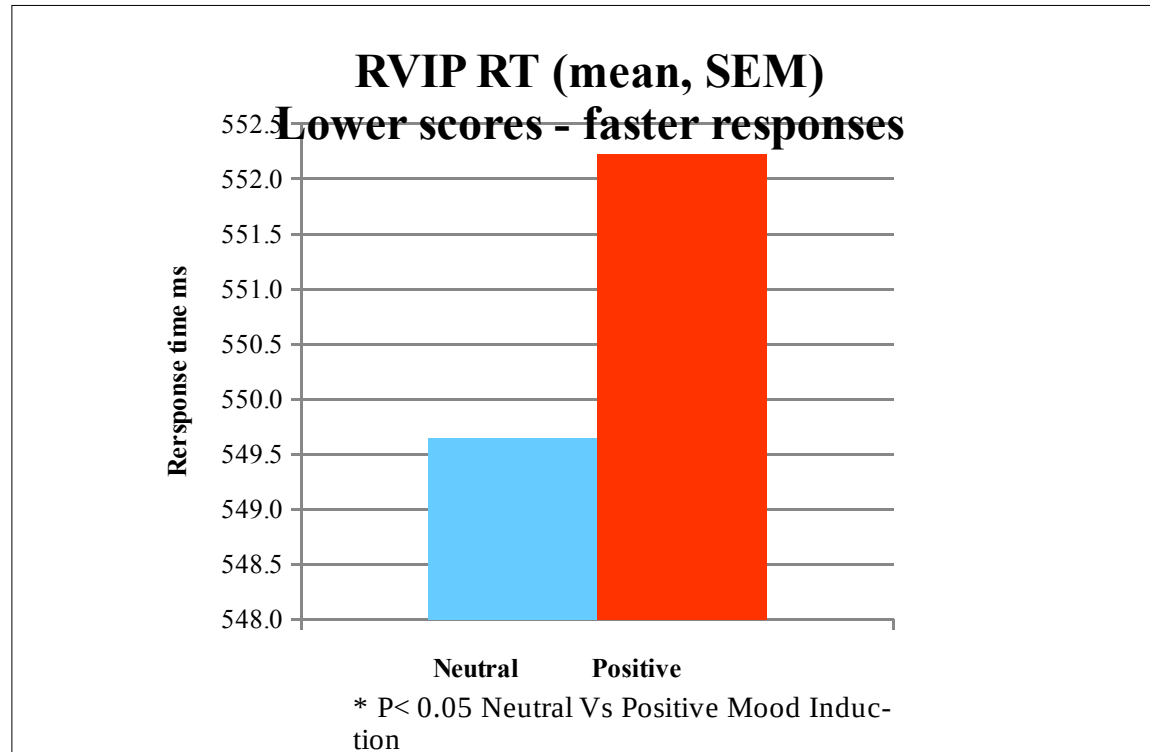


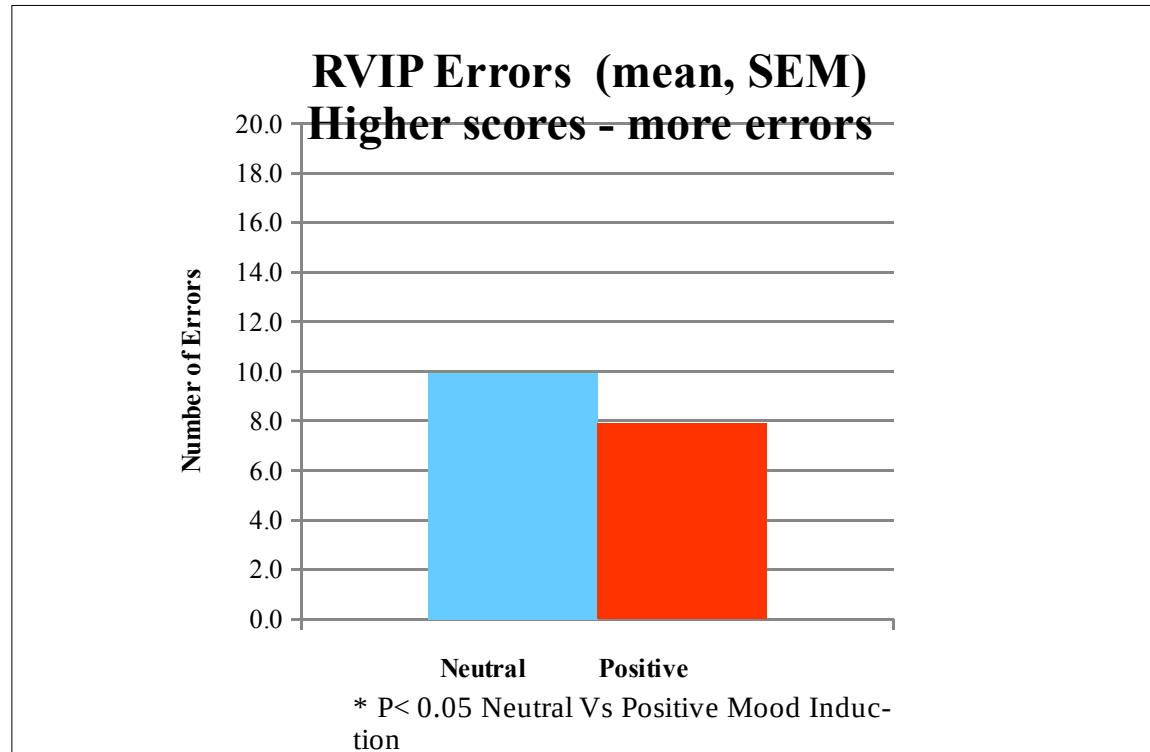












Performance Tests – Summary

Response times (correct responses) were consistently faster after positive mood induction compared to the neutral condition – for all but the (demanding and not liked by many students) RVIP task – so query a rapid negative mood response?

NB. The number of correct responses was not affected.

The number errors failed to show significant differences (though some means higher and some lower for positive mood induction, although the arrow flankers task (divided attention and response inhibition) did show a reduction in errors for the neutral flanker condition.

Strengths

Simple design – that significantly enhanced positive mood.
Performance task was a ‘light touch’ and did not tax/tire participants.

Weaknesses

The positive mood induction task included a motoric element (as have other studies). Although participants were not continuously drawing – but reflecting on memories and creating drawings. Further, whilst participants were subjectively more alert – they were also more relaxed after positive mood induction.

However, we know that simple motor actions can speed responses (e.g. Chewing gum). So, a better comparator and/or motor action control needed for next phase.....

Conclusion

A simple task that did not involve music (and hence no ‘music effect’) did result in more positive mood.

However, subjective ‘arousal’ per se was not increased

Participants were - more happy, contented, alert, and clear-headed, and relaxed but not calm.

Performance

There were - faster correct responses for choice reaction time, little man spatial task, serial 7’s, arrow flankers, but not rapid information processing. There was a reduction in neutral errors for arrow flankers, but not other errors or effects on inhibition. This was not a simple ‘speed-accuracy trade off as error scores were largely unaffected.

Overall – some support for the ‘arousal and mood hypothesis’ – but not just arousal?

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Conclusion

Be Happy and perform better!

Huffington Post:

[Marilyn Tam](#)

Speaker, author of "The Happiness Choice" consultant, board-certified executive/corporate/leadership coach

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A Happy Worker Is a Productive Worker

Posted: 07/31/2013 8:04 am

[A 2011 Harvard Business Review article](#) stated that the level of happiness has a profound impact on workers' creativity, productivity, commitment and collegiality.

Current American Psychological Association [research findings](#) show that people want contentment, love and happiness derived from meaningful work.

The End – Happy Memories!

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My Youthful Happy Memories from – Practice Quiz ready for Daryl next year...







My Youthful Happy Memories from – Practice Quiz ready for Daryl next year...

Gold Star

Charlotte Rampling in Zardoz

21 swiss roles..... (21st birthday)