Positive Affect and Control

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1. Conflict and control
Misleading information (e.g. in the flanker task) interferes with performance. However, it is known that conflict between behavioral tendencies drives up-regulation of control and thereby attenuates subsequent interference [1-3]. Common observation: 
→ less interference after conflict

Evidence 1: Monetary Gain

Method:
32 subjects performed a Flanker task with performance-independent feedback indicating monetary loss (€0.20), no loss/gain (€0.00), or monetary gain (€0.20).

Results:
Conflict + loss
Conflict + gain
Conflict
Reduced conflict adaptation after monetary gain

Conclusion:
Reward counteracts conflict adaptation [8]

Evidence 2: Positive Mood

Method:
91 subjects performed a Flanker task following experimental induction of a broad range of mood states with the help of imagination and music (cf. [9]).

Results:
Conflict + Anxiety
Conflict + Sadness
Conflict + Calmness
Conflict + Happiness
Reduced conflict adaptation in positive mood

Conclusion:
Mood valence but not arousal counteracts conflict adaptation

Future Research

Brain imaging
• How does the dopamine system modulate prefrontal activity?
• What is the role of frontal alpha asymmetry and approach/avoidance motivation [10]?

Emotion theory
• How is conflict related to cognitive dissonance [11]?
• What is the role of emotion regulation in conflict adaptation?
• Which traits moderate emotional modulation of conflict adaptation?

Psychopathology
• How is conflict adaptation changed in people with impaired emotional systems / disturbed monoamine levels (e.g., mood disorders)?
• How are emotional modulations of conflict adaptation related to these disorders?

References

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