Action oriented individuals are less vulnerable to ego depletion

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BACKGROUND

Action orientation is the ability to start and maintain actions despite difficulties and distracting thoughts (Kuhl, 1994). In contrast, state orientation is associated with an inability to initiate actions in the face of difficulties and problems. Sport psychologists found that action oriented athletes were better at managing their physical resources, as indicated by lactate concentration, than state oriented athletes during effortful sport exercises (Heckhausen & Strang, 1988; Strang, 1994). Adopting the ego depletion research paradigm (Muraven & Baumeister, 2000), we tested whether the effect of action orientation may be extended to the management of mental resources as well.

METHOD

Experiment 1

d2-Test → effortful physical exercise → d2-Test

- N = 20 (athletes)
- high error variance in d2-Test (Lines 8-14 *minus* Lines 1-7) as an index of ego depletion
- strength circuits at the limit of athletes' peak performance (20 min) as a manipulation

Experiment 2

critical fusion frequency → vigilance task → critical fusion frequency

- N = 28 (athletes)
- critical fusion frequency as an index of ego depletion (low frequency = high depletion)
- vigilance task (25 min) as a manipulation (Vienna Test System software)

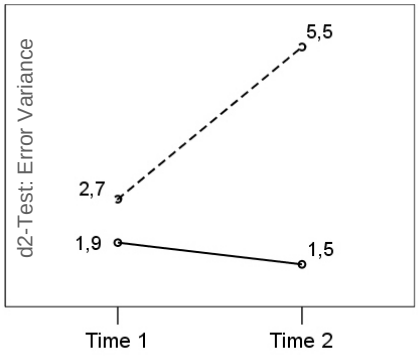
Experiment 3

effortful vs. easy senso-motor task → Stroop task

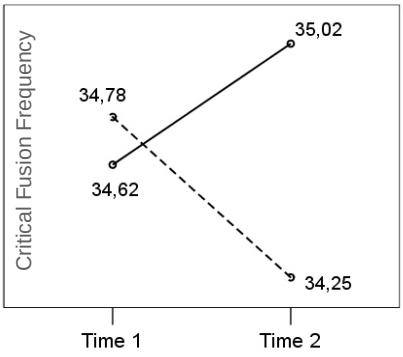
- N = 73 (sport students)
- Stroop interference test as DV (high interference = high ego depletion)
- frustrating vs. easy senso-motor task (15 min) as a manipulation (VTS software)

Action vs. state orientation was assessed with Kuhl's (1994) action control scale; subjective effort & affective arousal were controlled.

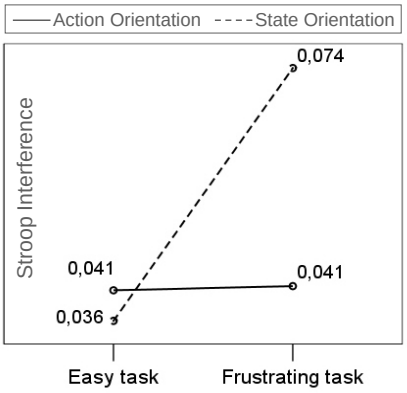
RESULTS



	β	ΔR^2
Step 1		.28*
Error Variance T1	.53*	
Step 2		.18*
Error Variance T1	.49*	
Action Orientation	-.43*	



	β	ΔR^2
Step 1		.98**
Critical Freq. T1	.94**	
Step 2		.04*
Critical Freq. T1	.95**	
Action Orientation	.21*	



	β	ΔR^2
Step 1		.08*
Condition	-.23*	
Action Orientation	-.15	
Step 2		.05*
Interaction	.23*	

DISCUSSION

In all three experiments, higher action orientation systematically predicted less ego depletion. Action oriented individuals managed their mental resources better than state oriented individuals. Possible explanations/underlying mechanisms:

- action orientation is associated with intuitive self-regulation (Koole & Jostmann, 2004) which is less depleting than conscious self-control (Baumeister, Schmeichel & Vohs, 2007)
- action orientation facilitates positive affect (Kuhl, 1994) which has been found to moderate ego depletion (Tice, Baumeister, Shmueli & Muraven, 2006)
- action orientation is associated with the ability to reduce overarousal (Heckhausen & Strang, 1988)