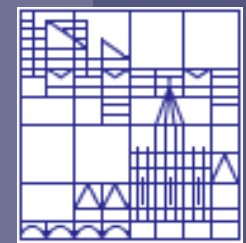


The Effects of Simple Plans Under Conditions of Induced Stress

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Goal Intentions

„I want to attain/become X!“

➤ Desired end states:

- behaviors, e.g., eat healthy
- events, e.g., run a marathon
- outcomes, e.g., become famous

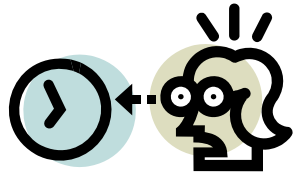
➤ Impact:

- evaluations
- emotions
- behaviors

⇒ realization requires mental effort (e.g., Michalski, 2008)



Stress and Goal Achievement



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Implementation Intentions

(Gollwitzer, 1993, 1996, 1999)

“If I encounter situation X, then I will do Y!”

- if-then plans
 - support goal intentions
 - specify a situation and a goal-directed behavior
 - when, where, and how to achieve an intention
-
- ⇒ realization is automatic, requiring little mental effort
(e.g., Brandstätter, Lengfelder, & Gollwitzer, 2001; Lengfelder & Gollwitzer, 2001)
 - ⇒ promote goal striving even under adverse conditions
(Gollwitzer & Sheeran, 2006; Achtziger & Gollwitzer, 2008)

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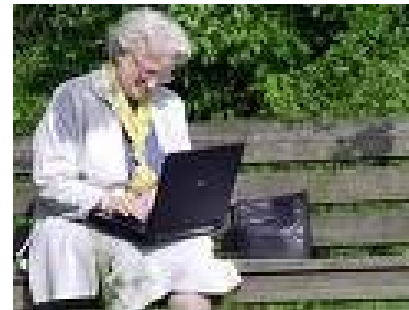
Processing of Social Information

Are old people...?

unhealthy, old-
fashioned, crabby,
take medicine



athletic, fast,
use a laptop,
listen to pop music



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Processing of Social Information

- knowledge-based impression formation
- categorization
- ⇒ saves mental effort
- ⇒ helps us to understand the world
- ⇒ positive self-esteem
- ⇒ ...
- ⇒ stereotypic thinking ⇒ prejudice ⇒ discriminating behavior



Avoiding Stereotypic Thinking

Processing of individual information

(e.g., Brewer, 1989; Fiske & Neuberg, 1990)

⇒ highly salient

Stress

⇒ Individual information is neglected (e.g., Stangor & McMillan, 1992)

⇒ Mental effort necessary to process individual information



Means of Supporting the Processing of Highly Individual Information under Stress

1. **Goals:** realization requires a lot of mental effort
 - ⇒ not able to support the processing of highly individual information under stress (e.g., Sherman & Frost, 2000)
2. **Implementation intentions:** realization requires little mental effort
 - ⇒ able to support the processing of individual information even under stress (Michalski, 2008; Achtziger, Michalski, & Gollwitzer, in prep.)



Study

Can implementation intentions improve the processing of individual information under stress?

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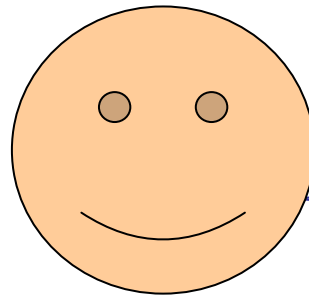
Procedure

$N = 127$ (67 female, 60 male students at the Universität Konstanz)

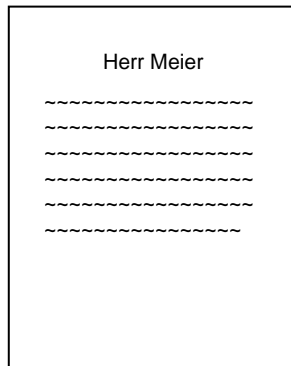
- Task: Impression formation of an old man living in a retirement home by reading a story about Mr. Meier's behaviors:
 - stereotypic information
 - neutral information
 - highly individual information
- Induced stress (no stress vs. stress)



Manipulation of Stress



und-und-
und-und-



Primary Task



1,5 seconds

Secondary Task

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Procedure

$N = 127$ (67 female, 60 male students at the Universität Konstanz)

- Task: Impression formation of an old man living in a retirement home by reading a story about Mr. Meier's behaviors:
 - stereotypic information
 - neutral information
 - highly individual information
- Induced stress (no stress vs. stress)
- Self-regulation strategy (no strategy vs. goal intention vs. implementation intention)



Manipulation of Intention

Goal Intention:

„I want to form an unbiased impression of Mr. Meier.“

Implementation Intention:

„And if it means: „Once a month...“,
then I will consider these activities.“



Procedure

$N = 127$ (67 female, 60 male students at the Universität Konstanz)

- Task: Impression formation of an old man living in a retirement home by reading a story about Mr. Meier's behaviors:
 - stereotypic information
 - neutral information
 - highly individual information
- Induced stress (no stress vs. stress)
- Self-regulation strategy (no strategy vs. goal intention vs. implementation intention)
- Long-term memory tests: free recall, cued recall, recognition
- Final questionnaire



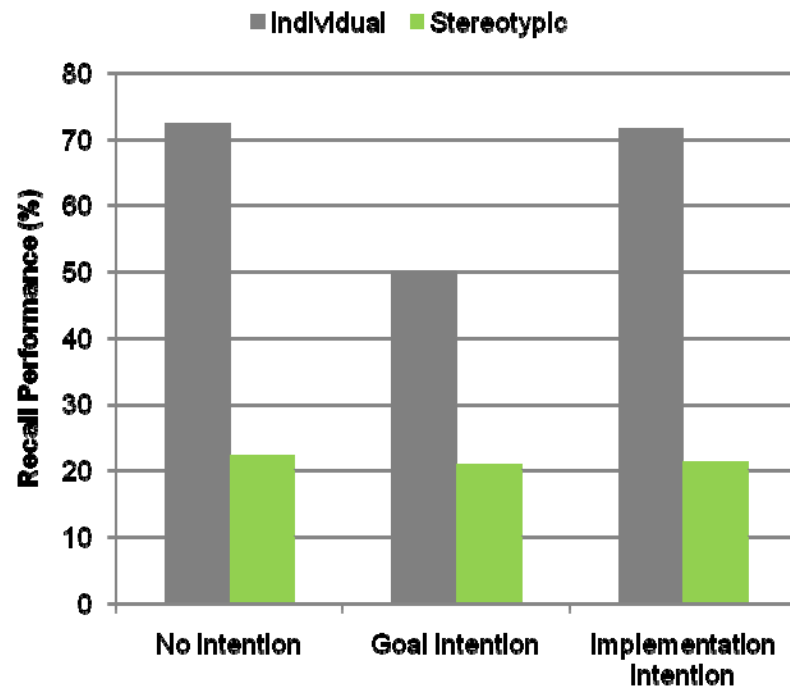
Hypothesis

In the stress condition, participants with an implementation intention will remember the individual information better than participants with a goal intention or participants with no intention.

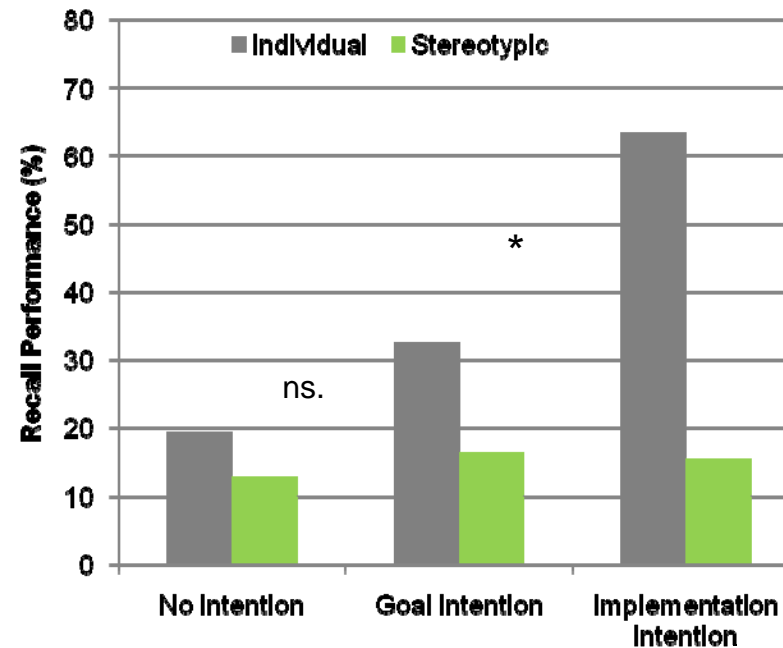


Results: free recall task

No mental stress



Mental stress



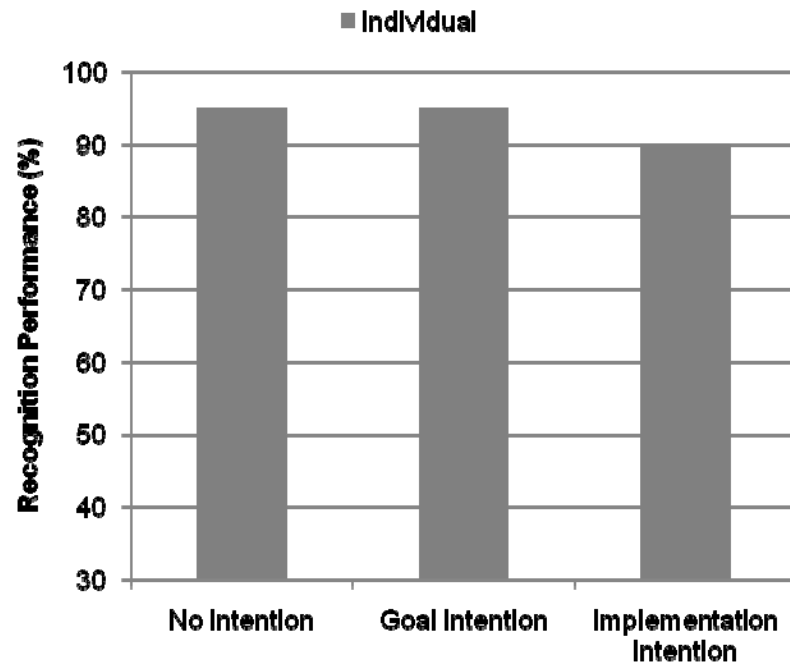
Intention x Mental Stress x Kind of Information:
 $F(2, 121) = 5.14, p < .01, \eta^2 = .08$

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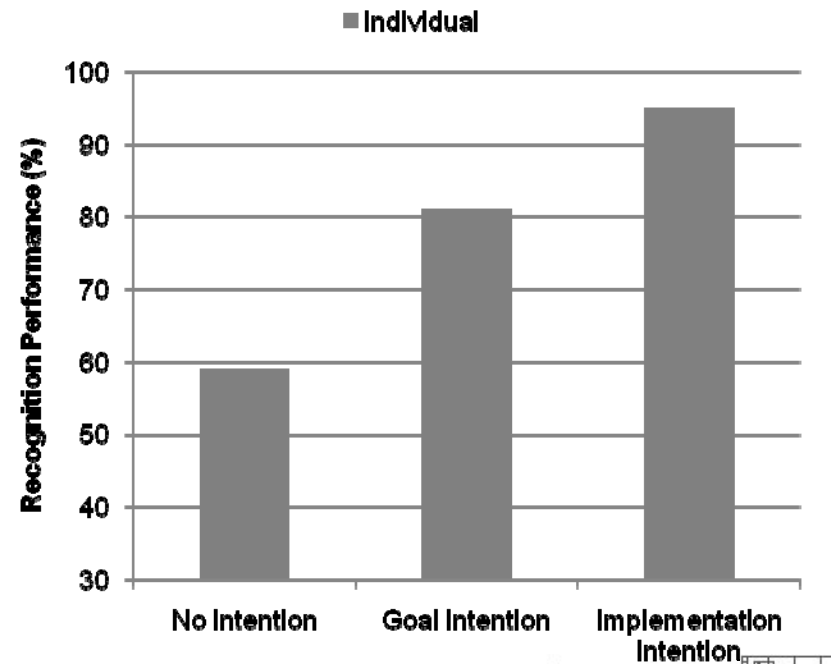


Results: recognition

No mental stress



Mental stress



Discussion

1. Memory performance was worse under stress.
 2. The formation of a goal intention was not sufficient enough to support the processing of individual information under mental stress.
 3. The formation of an implementation intention improved the processing of highly individual information even under mental stress.
- ⇒ Findings support the automaticity notion of implementation intentions: immediate, effortless, and without further conscious intent.



Conclusions

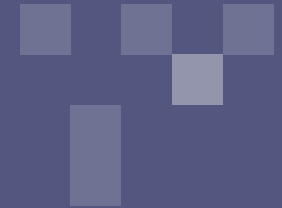
- ✦ Goal achievement (e.g. goal to be fair towards other people) is impaired by stress
 - ✦ Simple plans (implementation intentions) can support goal achievement even under mental stress
- ⇒ furnish people with implementation intentions if they encounter situations in which they are confronted with foreign social groups



Thank you for your attention!

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Effectiveness of Implementation Intentions

IF-component:

Hightened activation of the mental representation of the critical cue

⇒ Easily detected, readily attended to, successfully remembered
(e.g., Aarts, Dijksterhuis, & Midden, 1999; Achtziger, Bayer, & Gollwitzer, under review)

THEN-component:

Automatic action initiation:

- Immediate (e.g., Cohen, Bayer, Jaudas, & Gollwitzer, 2008)
- Efficient (e.g., Brandstätter, Lengfelder, & Gollwitzer, 2001)
- Without awareness (e.g., Bayer, Achtziger, Moskowitz, & Gollwitzer, in press)



Associative Network of the Stereotype „Hauptschüler“

