

YOU PROVED ME RIGHT!



References

effects of age-based stereotype threat on older adults performance in technology

Authors: Lilli Scherf, Wanda Denecke, Amelie Große, Abd-u-Rahman Siddiqi, Elias Chrysiakakis, Louis Gresser
Advisor: Dr. M. Clara P. de Paula Couto

INTRODUCTION

Can exposure to age-stereotypes undermine performance in self-relevant tasks? Research shows that age stereotypes negatively impact older adults by creating self-fulfilling prophecies (Lamont et al., 2015; Meisner et al., 2011; Steele & Aronson, 1995). This happens because stereotypes are internalized over time and influence aging (Levy, 2009). Older adults are often negatively viewed in technology use, but the effects of age-based stereotype threat (ABST) here are understudied (Lamont et al., 2021). This study examined ABST's impact on older adults' performance in technology tasks. We hypothesized that (1) ABST worsens performance and that (2) self-efficacy, the importance of technology, and intergenerational contact moderate this effect.

METHODS

Design

Mixed-design: 2 (Group: Control vs. ABST, between-subjects) x 2 (Performance assessment: before vs. after technology tasks, within-subjects).

Power analysis

indicated a minimum of 110 participants to detect a medium effect ($d = .50$).

Sample Description

		ABST (N=50)	Control (N=56)	Overall (N=106)
Sex	female	33 (66.0%)	37 (66.1 %)	70 (66.0%)
Age	Mean (SD) [Min, Max]	65.8 (8.25) [51.0, 86.0]	66.2 (8.86) [50.0, 84.0]	66.0 (8.54) [50.0, 86.0]

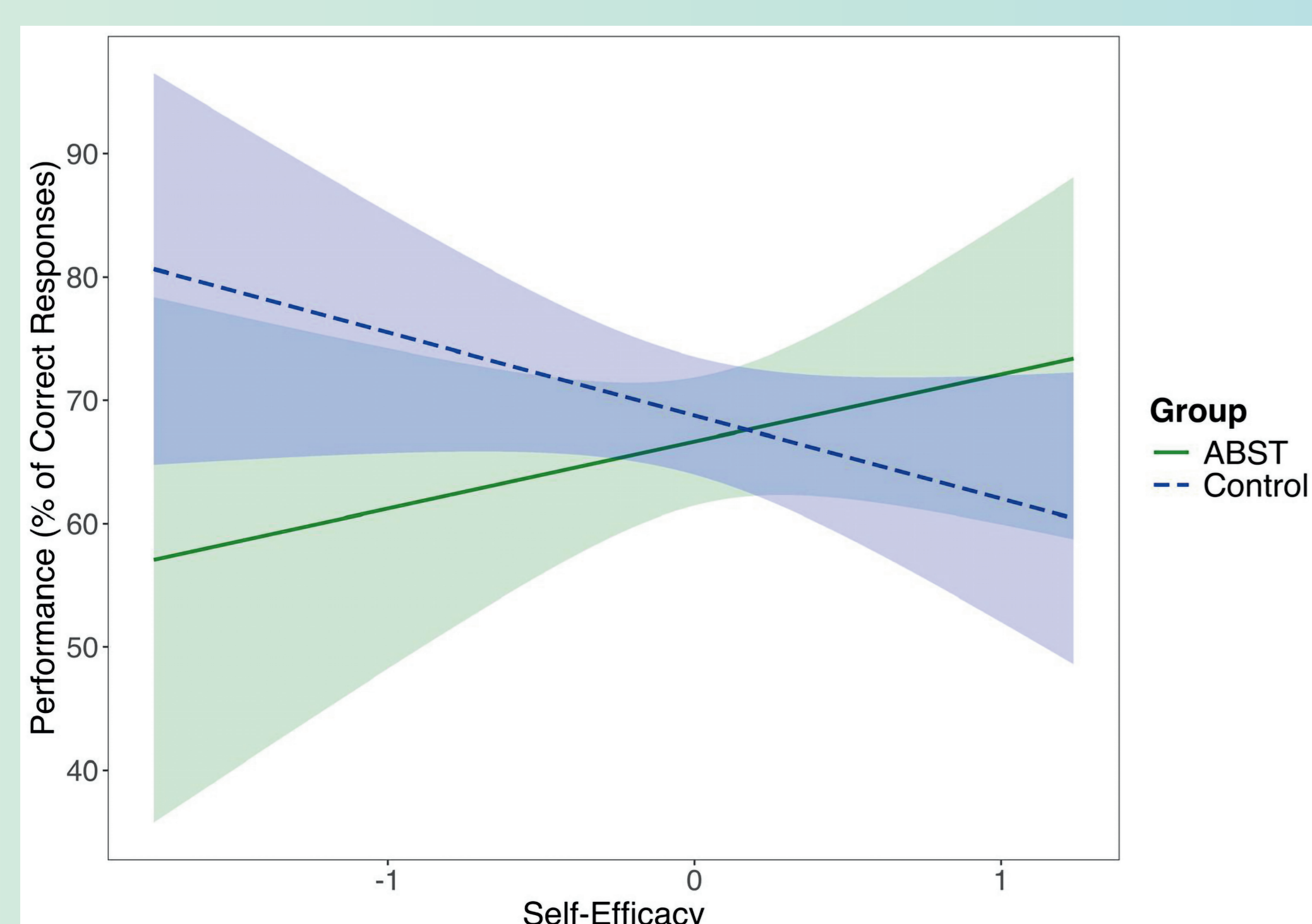
RESULTS

Age and Performance: Older participants in our sample exhibited worse performance in technology tasks.

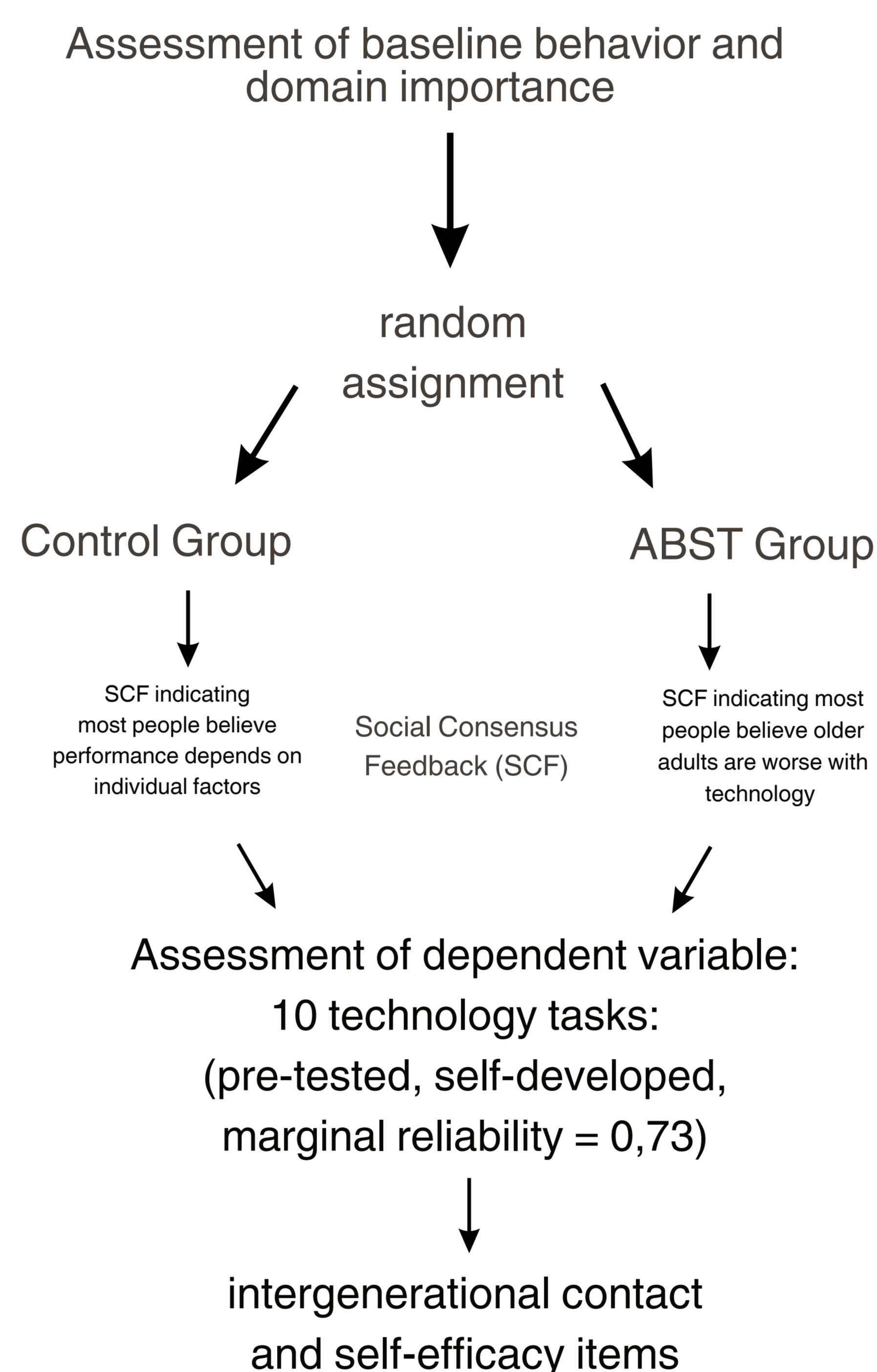
Self-Efficacy and Group Interaction: A significant interaction between self-efficacy and group was found. $B = 6.09, p = .045$

Performance Differences Between Groups:

- At low self-efficacy, no significant difference in performance between Control ($M = 69.26, SD = 21.47$) and ABST groups ($M = 62.86, SD = 20.77$).
- At high self-efficacy, no significant difference in performance between Control ($M = 67.24, SD = 20.86$) and ABST groups ($M = 71.85, SD = 18.61$).
- The difference between groups was less pronounced at high levels of self-efficacy.

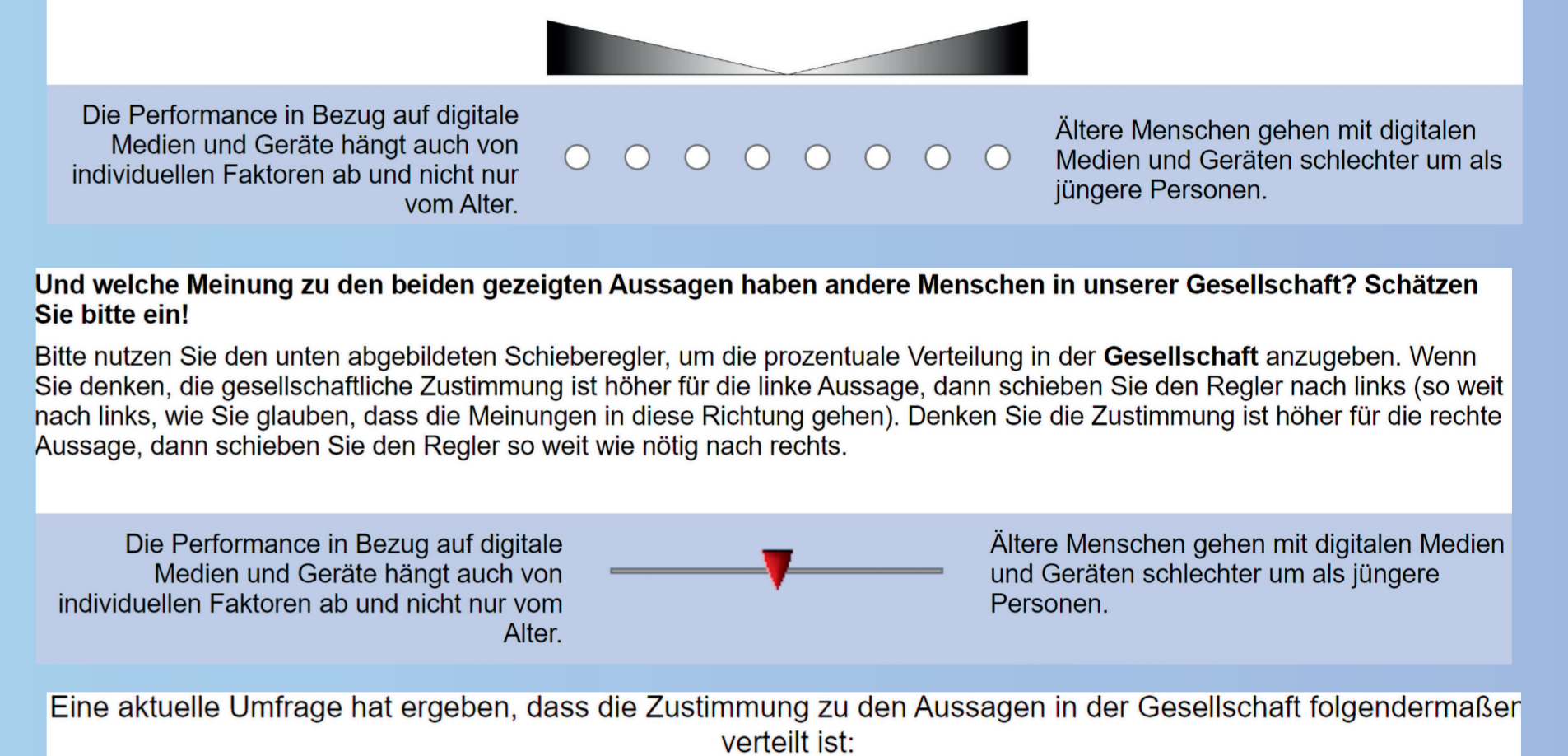


PROCEDURE

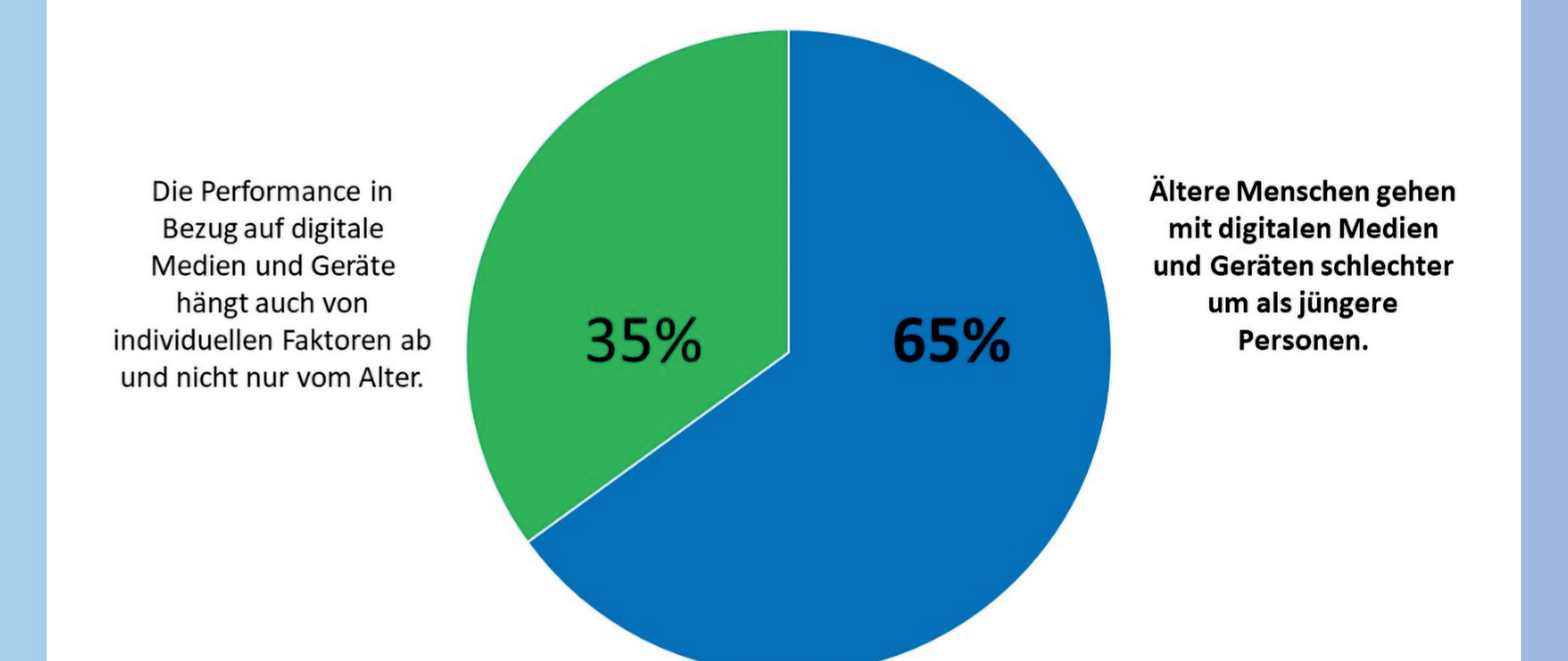


Manipulation to induce ABST

Jeder Mensch hat bestimmte Vorstellungen und Einstellungen zum Thema Alter und Altern. Im Folgenden werden jeweils zwei Aussagen gegenübergestellt.
Wenn Sie eher der linken Aussage zustimmen, kreuzen Sie bitte ein Kästchen auf der linken Seite an, und zwar umso weiter links, je stärker Sie dieser Aussage zustimmen. Wenn Sie eher der rechten Aussage zustimmen, kreuzen Sie bitte ein Kästchen auf der rechten Seite an.

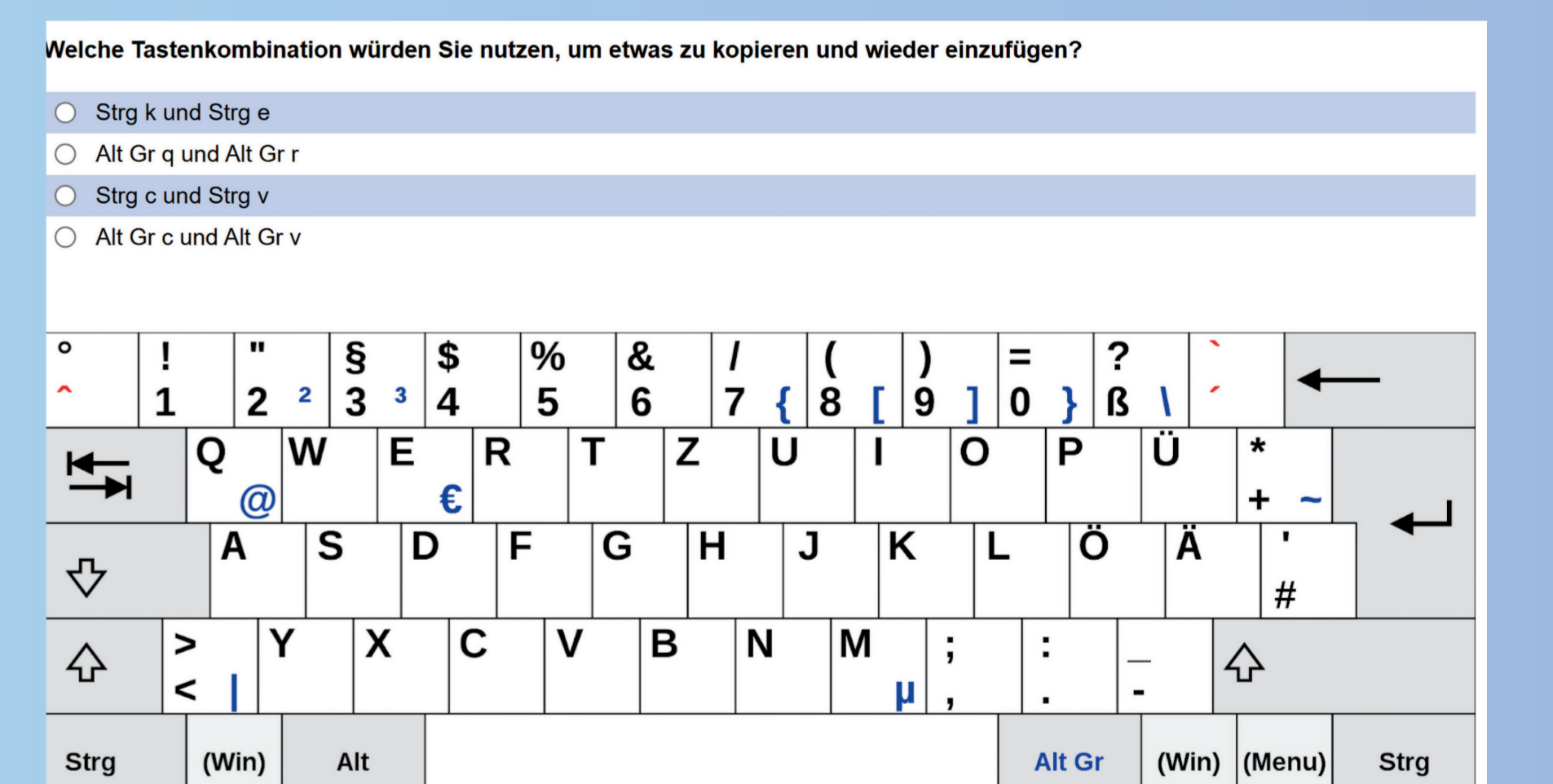


Eine aktuelle Umfrage hat ergeben, dass die Zustimmung zu den Aussagen in der Gesellschaft folgendermaßen verteilt ist:



Laut einer aktuellen Umfrage stimmt die Mehrheit der Bevölkerung welcher Aussage zu?
 Die Performance in Bezug auf digitale Medien und Geräte hängt auch von individuellen Faktoren ab und nicht nur vom Alter.
 Ältere Menschen gehen mit digitalen Medien und Geräten schlechter um als jüngere Personen.

Task example



DISCUSSION

Study Findings

- No significant performance differences between ABST and Control groups in technology tasks, but interaction with self-efficacy.

Possible Explanations:

1. High Motivation:
 - ABST group was highly educated and interested in science. --> Motivation to perform well, counteracting the negative ABST effects.
2. Self-Regulation:
 - ABST group used effective self-regulation strategies to manage stress.
 - Staying calm helps maintain performance. (Vohs & Baumeister, 2004)
3. Manipulation Effectiveness:
 - The ABST manipulation might not have worked as intended.
 - The stereotype about older adults' technological ability is strong. (Mariano et al., 2022)
 - The control group might also have experienced ABST effects simply by participating in the study.

Implications of the significant self-efficacy by group interaction:

- Performance varies with self-efficacy levels.
- Higher self-efficacy may make individuals more resilient to stereotype threat, leading to better performance.
- Interventions to reduce effects of ABST should take that into account.