Effect of "diagnosis threat" in clinical setting

Megan Fresson, Benoit Dardenne, & Thierry Meulemans

Department of Psychology: Cognition and Behavior, University of Liege (Belgium)

INTRODUCTION

- When reminded of their neurological history, mild traumatic brain injured (TBI) students underperform on neuropsychological tests (Suhr & Gunstad, 2002).

- To date, this "diagnosis threat" (DT) phenomenon has mainly been studied in a non-clinical and high-functioning population (university students).

- "Stereotype boost" refers to performance improvement in a domain when individuals of a group (A) are compared to a (stigmatised) group (B) known to be poor in this domain.

- With mild TBI students, Trontel, Hall, Ashendorf, & O'Connor (2013) showed that academic self-efficacy could explain the effect of stereotype threat on cognitive tasks.

STUDY GOALS

- To study DT and the stereotype boost phenomenon in a clinical setting with a clinical population (stroke and TBI patients).

- To investigate the mediating role of cognitive self-efficacy.

METHOD

PARTICIPANTS

- Stroke or TBI.
- 18 – 55 years old.
- Recruited in clinical setting.
- Randomly assigned to one of three conditions.

STEREOTYPE ACTIVATION

	Study goal	Type of tasks
DT	To study cognitive deficits	Cognitive tasks
Boost	To compare with Alzheimer disease patients	Cognitive tasks
Neutral	To study sensory capacities	Sensory tasks

Session 1

- Double blind testing.
- Consent written and false sensory tasks.
- Stereotype activation.
- Cognitive tasks with two stereotype "reactivation".
- Questionnaires (mediating variables).

Session 2 (one week later)

- Three baseline tasks.
- Debriefing.

RESULTS

DIAGNOSIS THREAT ON COGNITIVE TASKS

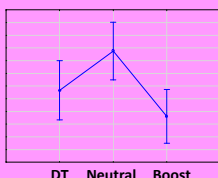- No effect on attentional and memory tasks

- Effect on executive tasks
  - Ancova results
    - Stereotype effect : $F(2) = 6.86$, $p = .01$
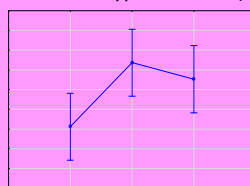
DT   Neutral   Boost

  - Post-Hoc
    - Neutral > DT ($p = .03$)
    - Boost > DT ($p = .05$)

DIAGNOSIS THREAT ON SELF-EFFICACY

- Ancova results
  - Stereotype effect : $F(2) = 6.89$, $p = .01$
  - Post-Hoc :
    - Neutral > DT ($p = .08$)
    - Neutral > Boost ($p = .02$)

  - Executive f. X Cog. Self-Efficacy : $r = .37$

DT   Neutral   Boost

MEDIATION ANALYSIS
with bootstrapping method (Preacher & Hayes, 2004)

Indirect effect of X on Y :

- Effect = .017 (Boot SE = .099)
  - Bs between -.06 and .58

DISCUSSION

DT ONLY ON EXECUTIVE FUNCTIONS

- Executive functions are known to be the most sensitive to stereotype effects (Schmader, Johns, & Forbes, 2008).

NO STEREOTYPE BOOST EFFECT

- Choking under pressure hypothesis (Baumeister, 1984)
  - The stereotype boost condition could have posed a (too) great pressure to perform well on individuals.
  - As a consequence, this pressure (threat) had impacted their cognitive self-efficacy.

NO MEDIATING EFFECT OF COGNITIVE SELF-EFFICACY

- Need to include multiple explanatory mechanisms (interacting together?) in mediation analysis (Schmader et al., 2008; Smith, 2004).

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