Effect of “diagnosis threat” in clinical setting

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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

<table>
<thead>
<tr>
<th>Study goal</th>
<th>Type of tasks</th>
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<tbody>
<tr>
<td>DT</td>
<td>To study cognitive deficits</td>
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<tr>
<td>Boost</td>
<td>To compare with Alzheimer disease patients</td>
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<tr>
<td>Neutral</td>
<td>To study sensory capacities</td>
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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 : $F (2) = 6.86, p = .01$

  • 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 : $r = .37$

MEDIATION ANALYSIS
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).

REFERENCES