CHANGING IMPLICIT SELF-CONCEPTS: A META-ANALYSIS
Andrei Rusu1,2, Silvia Rusu1, Florin Alin Sava3
Psychology Department, West University of Timisoara, Romania; 2Faculty of Psychology, “Alexandru Ioan Cuza” University of Iasi, Romania

ABSTRACT

OBJECTIVE: The current study was conducted with the aim of developing a meta-analytic investigation of the degree in which the implicit self-concepts can be modified.

DATA SOURCES: A sample of 8 publications ranged between 2004 and 2010 were revealed from the search in the Psychinfo and ProQuest Dissertations & Theses databases, from which emerged 16 relevant studies.

SELECTION CRITERIA: Only randomized trials were included, with either implicit or explicit manipulations of the IVs, and implicit measured DVs.

RESULTS: Cohen's d effect sizes were computed. Significant overall effect size in favor of changing implicit self-concepts in the desired direction was found. Studies focused on implicit interventions revealed considerably higher mean effect size compared to those using explicit interventions.

CONCLUSIONS: Implicit self-concepts can be modified (as revealed by implicit measures), and implicit appear to be superiorly efficient than explicit interventions.

METHOD

Literature search was based on articles published in journals indexed in the Psychinfo and ProQuest Dissertations & Theses databases using keywords such as: implicit cognition AND change; evaluative conditioning.

Main selection criteria were: (1) randomized trials; (2) with either implicit or explicit manipulations of the independent variables; and (3) implicit measured dependent variables.

16 ES emerged from the sample of 8 publications: 4 of them were based on an explicit interventions (e.g., cognitive behavioral therapy) and 12 on implicit interventions (e.g., evaluative conditioning); 12 tested the self-esteem as an implicit self-concept and 4 tested anxiety as an implicit self-concept.

A fixed effect model meta-analysis was computed using the specifications provided by Borenstein, Hedges, Higgins and Rothstein (2009).

RESULTS

<table>
<thead>
<tr>
<th>Grouping criteria</th>
<th>n</th>
<th>Mean effect size</th>
<th>SE</th>
<th>95% CI of effect size</th>
<th>z score</th>
<th>p value</th>
<th>Q test for homogeneity</th>
<th>f²</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>16</td>
<td>0.342</td>
<td>0.016</td>
<td>0.31, 0.37</td>
<td>21.806</td>
<td>&lt; .01</td>
<td>441.409</td>
<td>.01</td>
<td>96.60</td>
</tr>
<tr>
<td>Explicit interventions</td>
<td>4</td>
<td>0.148</td>
<td>0.035</td>
<td>0.07, 0.21</td>
<td>4.199</td>
<td>&lt; .01</td>
<td>27.760</td>
<td>.01</td>
<td>89.19</td>
</tr>
<tr>
<td>Implicit interventions</td>
<td>12</td>
<td>0.390</td>
<td>0.018</td>
<td>0.35, 0.42</td>
<td>22.257</td>
<td>&lt; .01</td>
<td>376.160</td>
<td>.01</td>
<td>97.07</td>
</tr>
<tr>
<td>Anxiety</td>
<td>4</td>
<td>0.500</td>
<td>0.035</td>
<td>0.43, 0.56</td>
<td>14.455</td>
<td>&lt; .01</td>
<td>12.130</td>
<td>.01</td>
<td>75.26</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>12</td>
<td>0.301</td>
<td>0.018</td>
<td>0.26, 0.33</td>
<td>17.111</td>
<td>&lt; .01</td>
<td>403.054</td>
<td>.01</td>
<td>97.27</td>
</tr>
</tbody>
</table>

CONCLUSIONS

Overall: The mean ES revealed is moderate, statistically significant and strong. The level of between-study variance is high.

Implicit vs. Explicit interventions: The mean ES of studies designed to change implicit associations with implicit methods (e.g., EC) is significantly larger than the mean ES from studies based on explicit interventions (e.g., CBT).

Anxiety vs. Self-esteem: There is a significantly larger mean ES when the target self-concept is implicit anxiety than in the case of implicit self-esteem. Also the level of between-study variance is high.


STUDIES INCLUDED IN THE META-ANALYSIS


Dijksterhuis (2004a)

Dijksterhuis (2004b)

Dijksterhuis (2004c)

Dijksterhuis (2004d)

Dijksterhuis (2004e)

Ceschi et al. (2009)

Baccus et al. (2005)

Gammer et al. (2008)

Correspondence concerning this poster should be addressed to Andrei Rusu, andrei_rusu@yahoo.com.

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