

INTRODUCTION

Conspiracy theories are scientifically unfounded convictions rooted in the belief that powerful groups spread misinformation and harm the public for malevolent objectives.^{1,2}

- Typically preceded by an event perceived as threatening or ambiguous.^{3,4}

Flat Earth belief holds that powerful world groups fake evidence about the Earth's round shape and that the Earth is a disc, surrounded by an ice wall, and covered by a dome.¹

- Lack of a clear precipitating event.
- Issues: societal polarization, distrust in the scientific community, stigma.¹⁻³

Gaps

- Belief in conspiracy theories is **not pathological** (i.e., a symptom of dysfunction) but is rather an outcome of a dynamic interaction of several factors.^{1,5,6}
- Flat Earth believers are **radical experimentalists**.¹
- Conspiracy mentality** is a generalized hatred towards and attribution of negative events to "societal elites".^{3,6-8}

OBJECTIVE

Research the thought patterns associated with the Flat Earth belief

- To better represent Flat Earth believers to prevent societal stigma
- To determine how to prevent the belief in a Flat Earth for the safety of society and the integrity of and trust in the scientific community.

Hypotheses

- The Flat Earth belief will be associated with a unique thinking pattern
- The Flat Earth belief will be associated with less rational thinking and more experiential thinking
- There will be a significant relationship between cognitive biases, thinking tendencies, and the Flat Earth belief

METHODS

Recruitment

- Students from two University of Toronto Scarborough introduction psychology courses through SONA.
- Adults from Flat Earth forums.

Criteria: in North America, 17 years old and over, conspiracy ideology or Flat Earth endorsement for Flat Earth recruits.

COGNITIVE MECHANISMS IN CONSPIRACY THEORIES



Mei Timpson
Supervised by Dr. Michael W. Best
Department of Psychology, University of Toronto Scarborough

METHODS

Procedure

- Digitalized Consent
- Gender and age
- Generic Conspiracist Beliefs Scale – 5 (GCB-5)⁹
- Davos Assessment of the Cognitive Biases Scale* (DACOBS)¹⁰
- Brief Core Schema Scales (BCSS)¹¹
- Dysfunctional Attitude Scale Short Form 1* (DAS-SF1)¹²
- Dysfunctional Attitude Scale Short Form 2 (DAS-SF2)¹²
- Rational-Experiential Inventory – 10* (REI-10)¹³
- Under/Overconfidence subscale from the Adult Decision-Making Competency (A-DMC)¹⁴
- Objectivism Scale*¹⁵
- Scenario Judgements Questionnaire (SJQ)¹⁶
- Ordinary Science Intelligence 2.0 (OSI_2.0)¹⁷
- Flat Earth Conviction scale
- Demographics survey
- Non-compulsory draw for Flat Earth recruits (50 CAD)/debriefing form for SONA recruits and up to 1.0 SONA credit

*=validity checks

Analysis:

SPSS Statistics Version 29.0.2.0 (20): unstratified and biological-sex-stratified regression, bivariate correlation, and independent samples two-sided t-test analyses.

Due to insufficient sample size in the Flat Earth Forum surveys (n=10), only SONA surveys (n=173) were used for analyses.

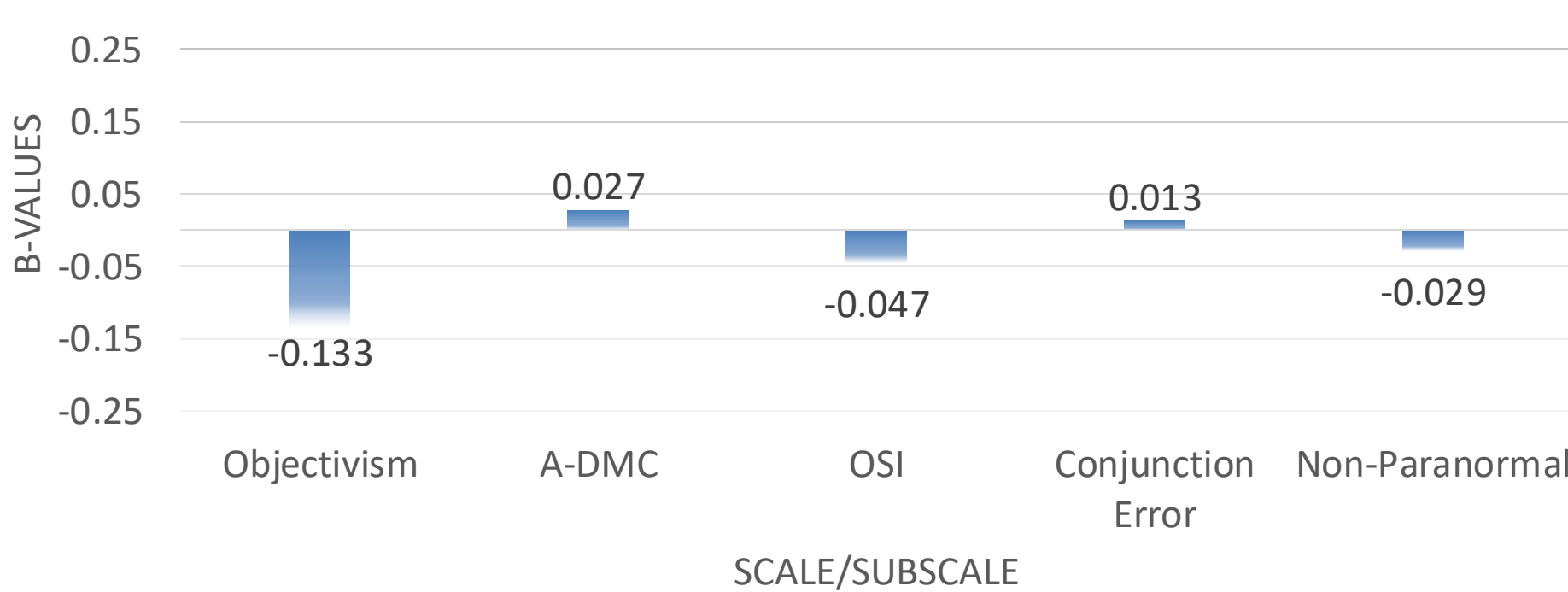
Due to insufficient endorsement in a flat earth, the thinking patterns associated with general conspiracy theory belief, represented by GCB-5, was assessed instead.

RESULTS

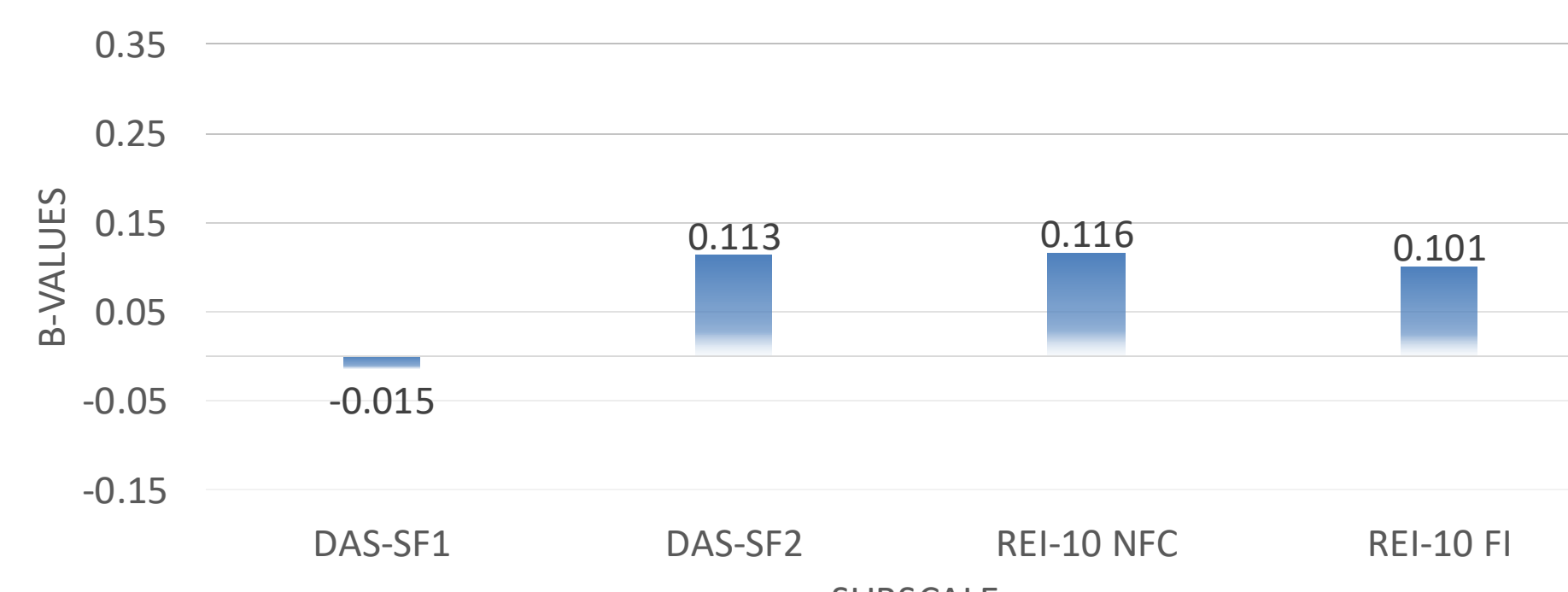
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GCB-5

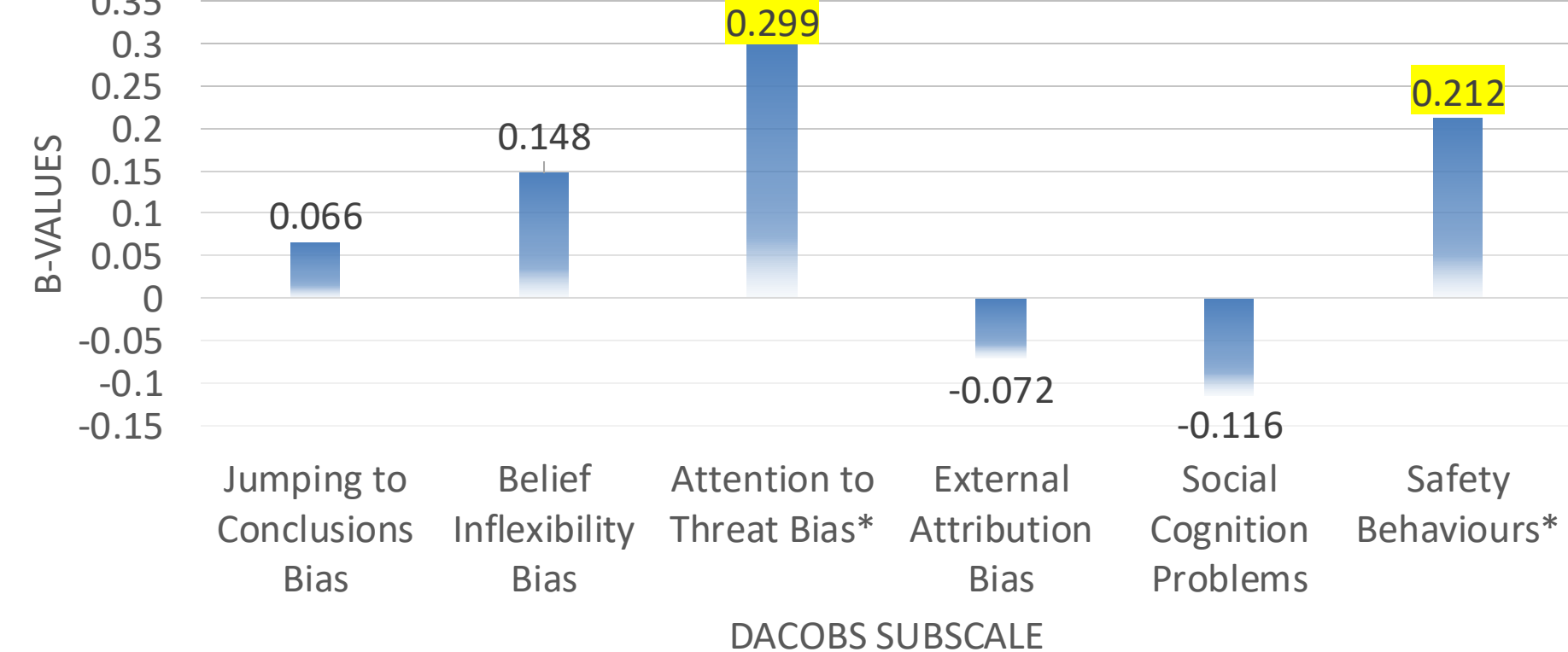
OBJECTIVISM, A-DMC'S UNDER/OVERCONFIDENCE, OSI, AND SJQ'S PREDICTION OF OVERALL GCB-5 SCORE USING B-VALUES



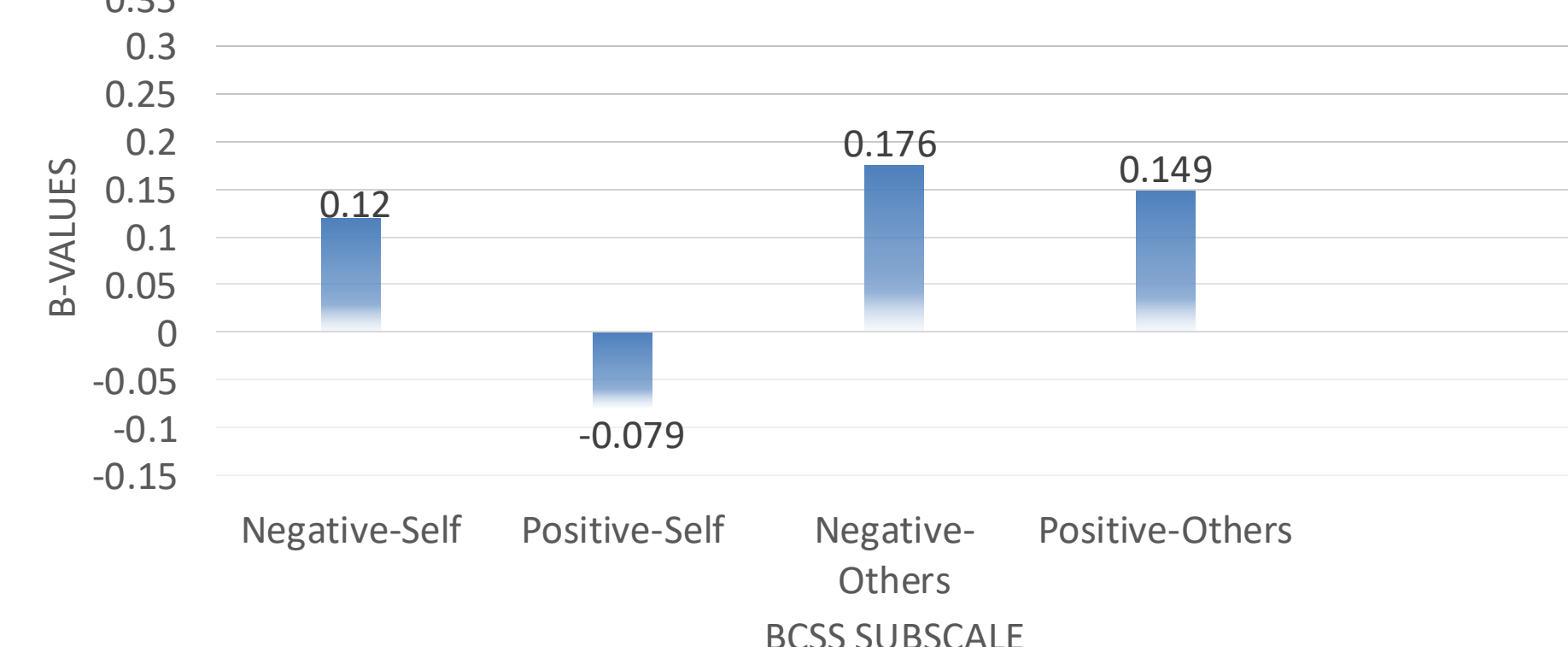
DAS-SF1, DAS-SF-2, AND REI-10'S PREDICTION OF OVERALL GCB-5 SCORE USING B-VALUES



DACOBS'S PREDICTION OF OVERALL GCB-5 SCORE USING B-VALUES

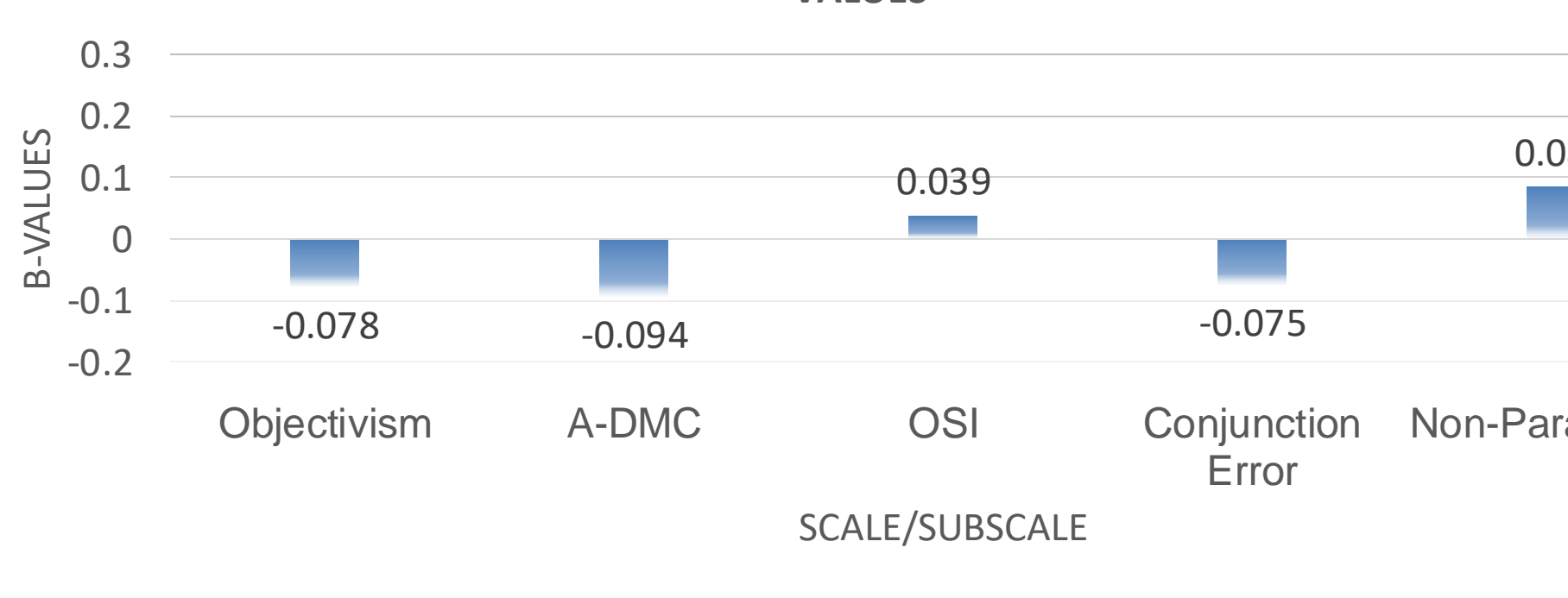


BCSS PREDICTION OF OVERALL GCB-5 SCORE USING B-VALUES

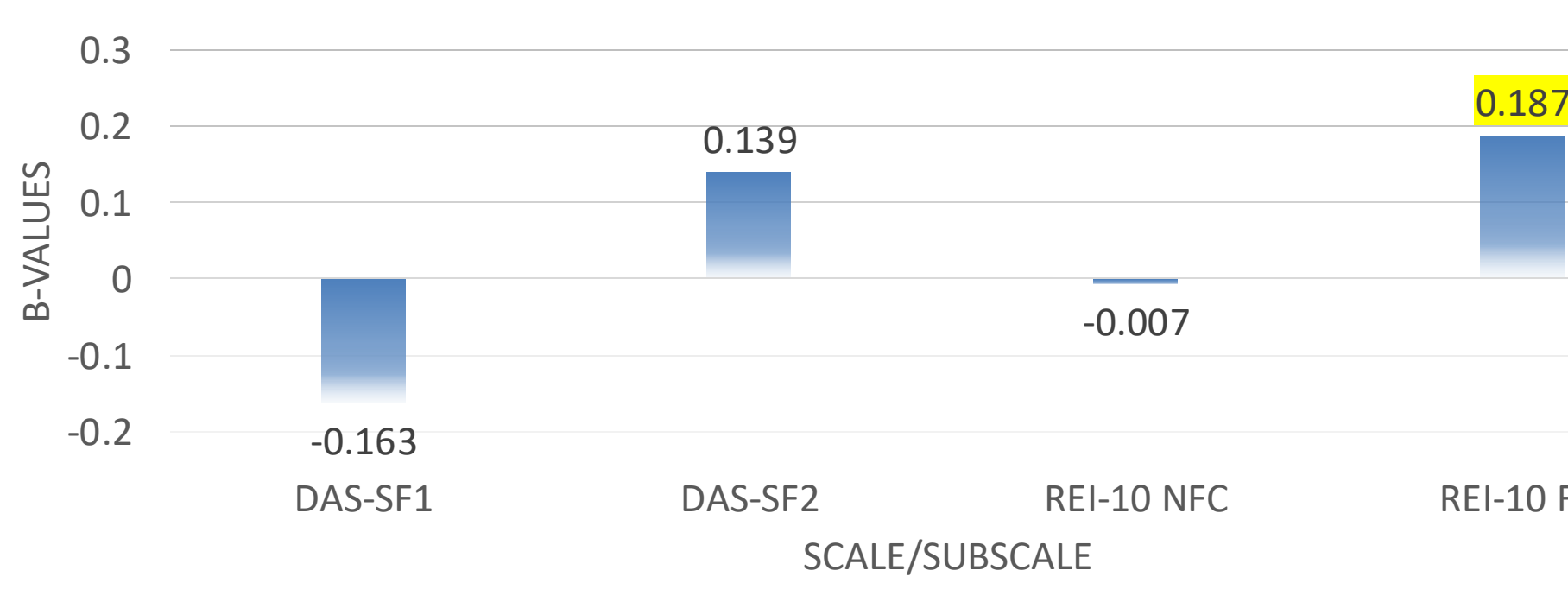


GCB-5's Extraterrestrial Cover-up Subscale

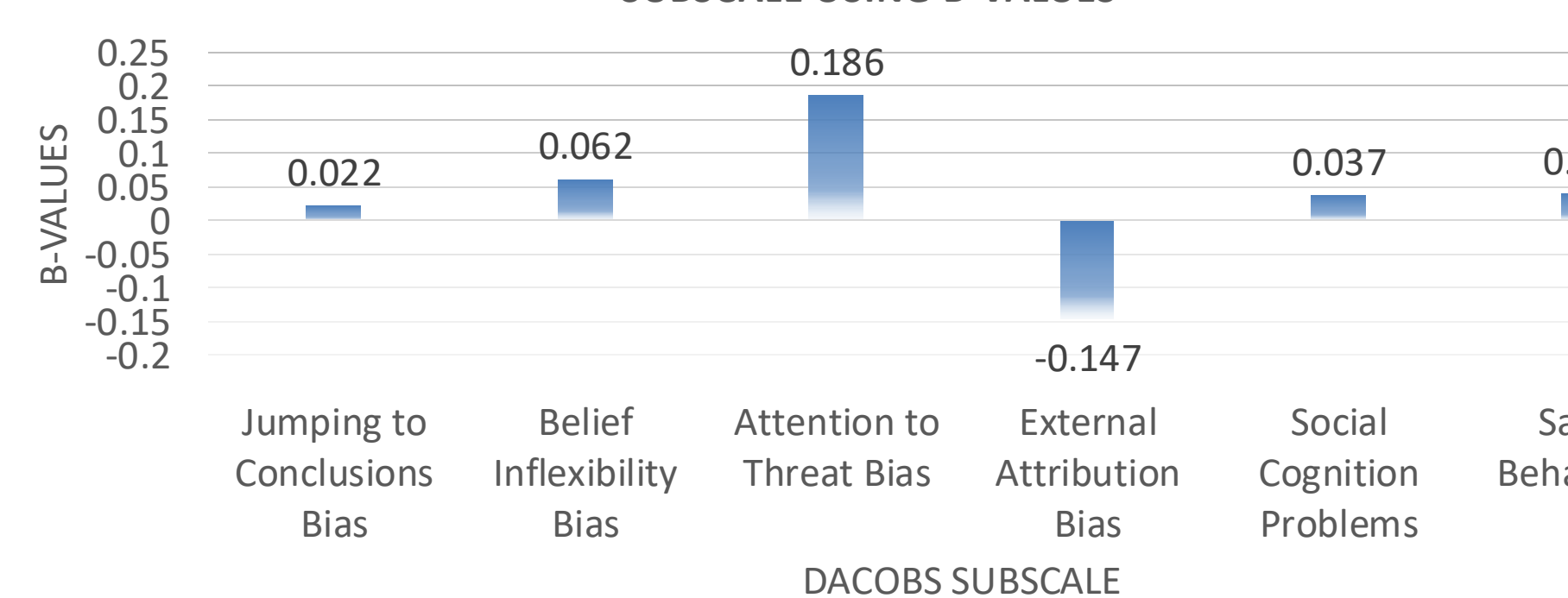
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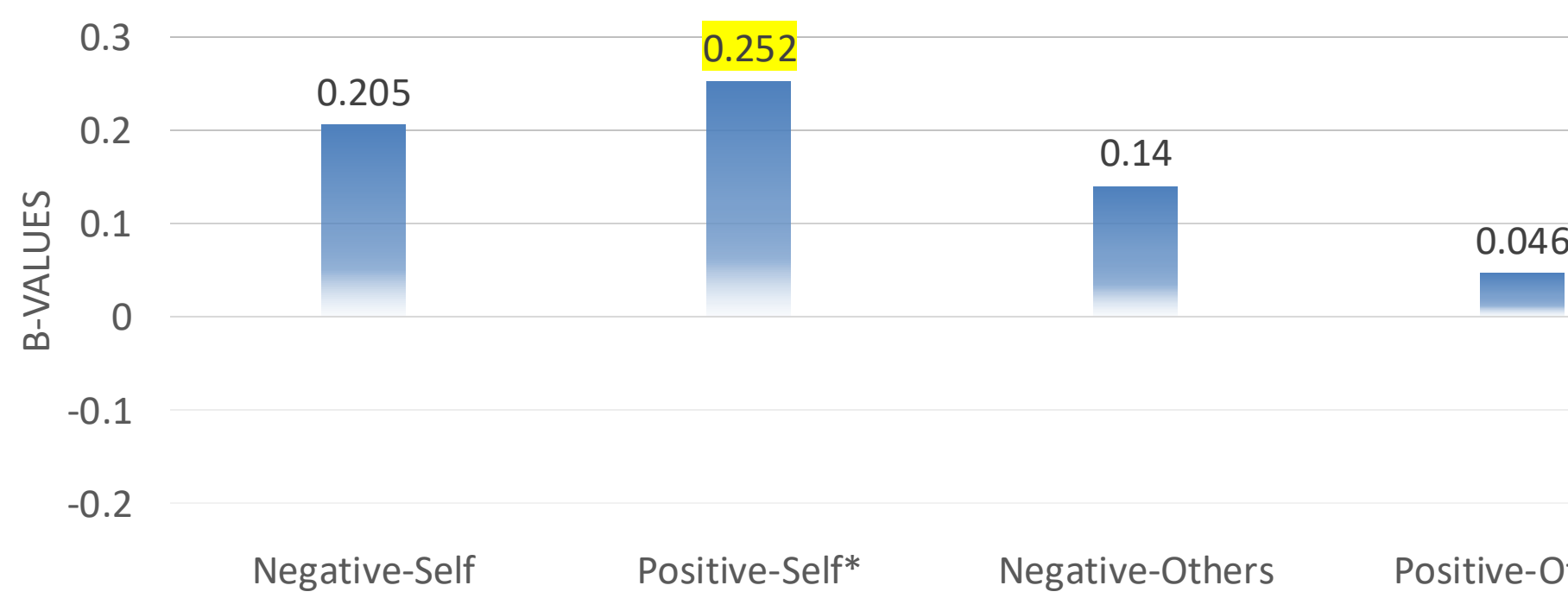
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DACOBS'S PREDICTION OF GCB-5'S EXTRATERRESTRIAL COVER-UP SUBSCALE USING B-VALUES



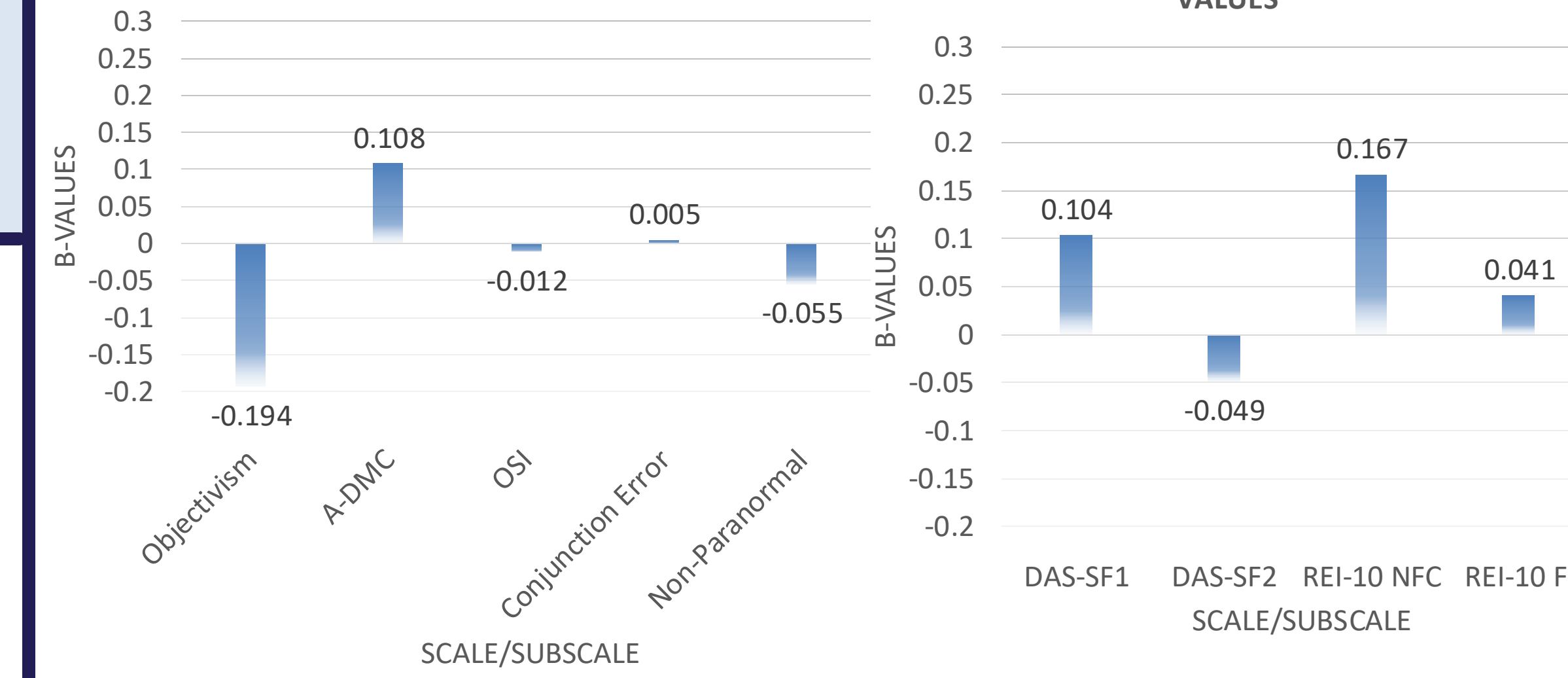
BCSS PREDICTION GCB-5'S EXTRATERRESTRIAL COVER-UP SUBSCALE USING B-VALUES



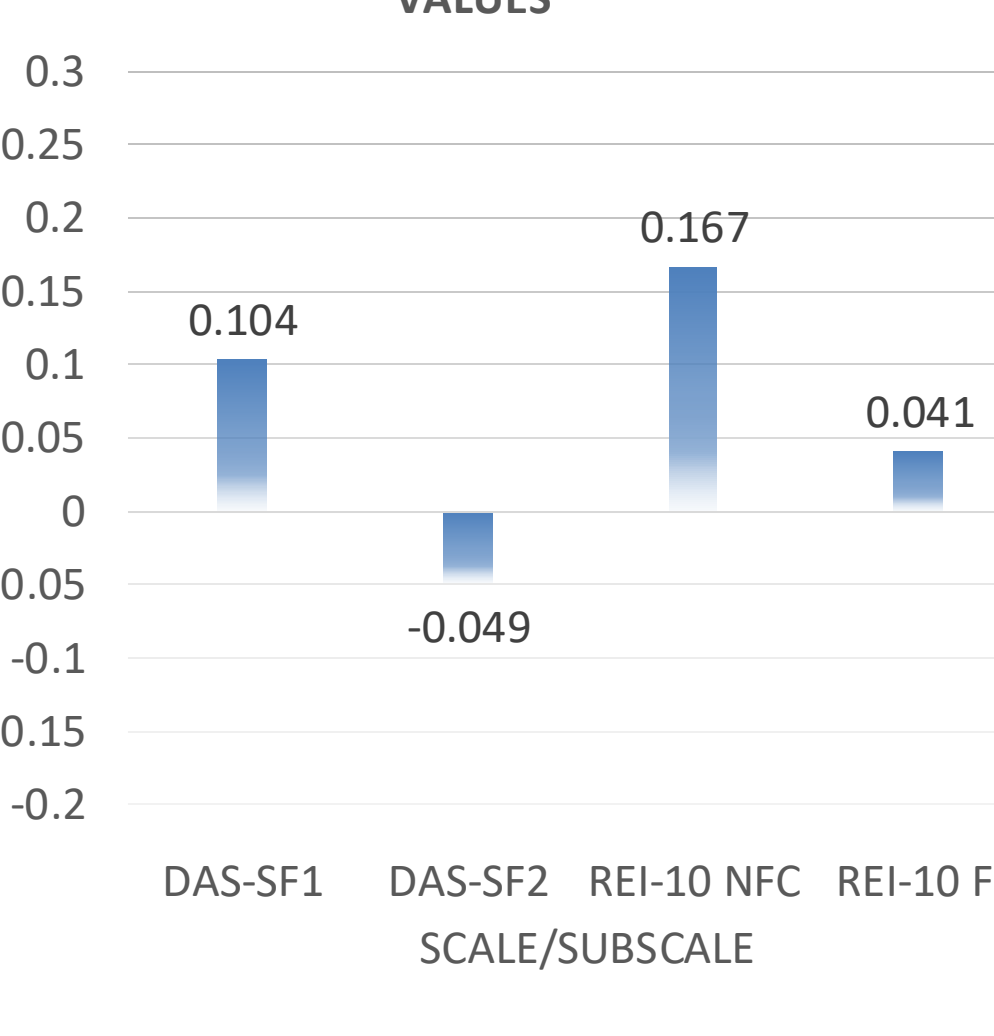
RESULTS

GCB-5's Malevolent Global Subscale

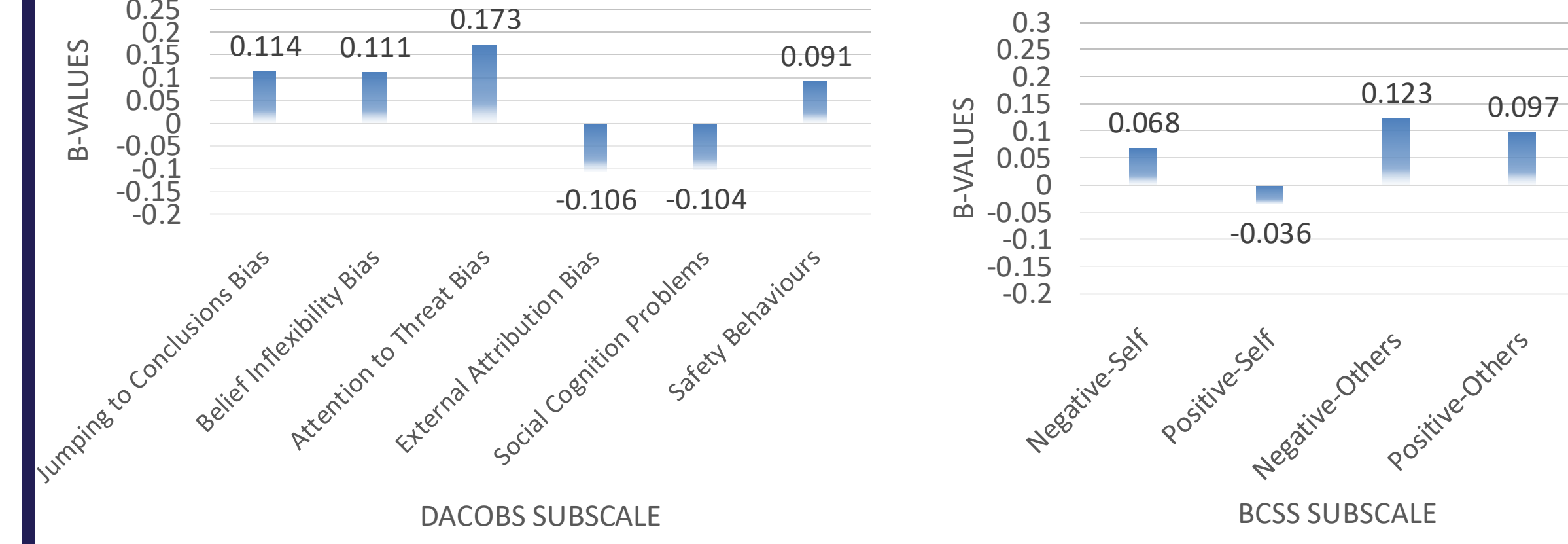
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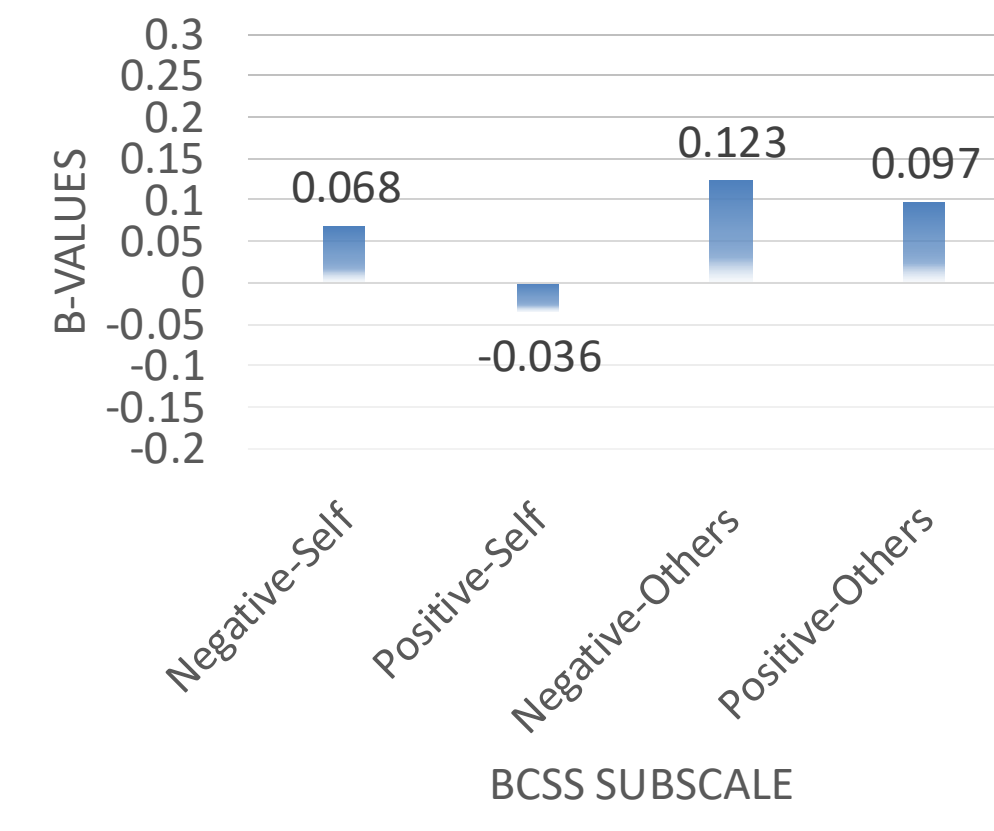
DAS-SF1, DAS-SF-2, AND REI-10'S PREDICTION OF GCB-5'S MALEVOLENT GLOBAL SUBSCALE USING B-VALUES



DACOBS'S PREDICTION OF GCB-5'S MALEVOLENT GLOBAL SUBSCALE USING B-VALUES



BCSS'S PREDICTION GCB-5'S MALEVOLENT GLOBAL SUBSCALE USING B-VALUE



DISCUSSION

- Greater attention to threat and safety behaviours predicted higher scores on the GCB-5.
- GCB-5 was significantly correlated with the attention to threat and negative-others subscales.
- Extraterrestrial cover-up was significantly predicted by Faith in Intuition and positive-self.

CONCLUSION

Implications

- Specific conspiracy theories may be characterized by different cognitive mechanisms.¹⁸
- Prominent (4% of university students); trust in the scientific community, social cohesion, and stigma?
- Attention to threat and safety behaviours: techniques to reduce threats.
- Intuitive thinking: education on and promotion of analytical thinking.
- More research needed on positive-self.

Limitations

- Predominantly women sample (>3/4)
- Inability to run analyses on the Flat Earth belief
- Predominantly Asian sample
- University students
- Cross-sectional
- Utilization of GCB-5 instead of full GCB

References:

