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Investigating the Factor Structure of the Defensive Confidence Scale

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Background

Empirical investigations have demonstrated that individuals often demonstrate a systematic preference for information that is consistent with their existing belief structure (i.e., the selective exposure effect; Hart et al., 2009). Investigations have established that individuals' level of defensive confidence influences their willingness to engage with congenial and uncongenial information. Defensive confidence refers to an individual's belief in their capability to defend their beliefs from attack by external sources (Albarracín et al., 2004).

Our review of the existing literature indicates that defensive confidence is commonly assessed using the defensive confidence scale (Albarracín & Mitchell, 2004; Albarracín et al., 2008). Although the defensive confidence scale is commonly used in the psychological literature, investigations of the instruments' psychometric properties are scarce.

Therefore, the purpose of the current study was to investigate the latent structure of the defensive confidence scale using factor analytic techniques.

Method

Undergraduate students (N = 392, 70.4% female, 63.4% Caucasian, Mean Age = 24.4) completed the:

Defensive Confidence Scale:

• 12 items designed to assess how confident individuals are in their ability to defend their feelings and opinions $(\alpha = .85; Albarracín & Mitchell, 2004).$

Procedure:

- Participants completed the materials as part of their involvement in an undergraduate research pool.
- Participants completed the defensive confidence scale and a demographics questionnaire using the Qualtrics survey management platform.

Results

Confirmatory Factor Analysis

Prior investigations have provided evidence that items on the defensive confidence scale are assessing a single latent construct capturing individuals' differences in individual beliefs regarding their ability to successfully defend their existing views (Albarracín & Mitchell, 2004). We tested the validity of the proposed 1 – factor solution using confirmatory factor analysis. The confirmatory factor analysis model was fit using Maximum Likelihood Estimation. Results of the analysis indicated that the one factor solution provided a poor fit to the observed data, CFI = .73, TLI = .67, SRMR = .10, RMSEA = .14 [.13, .15].

Exploratory Factor Analysis

Next, an exploratory factor analysis using principal axis factoring with a Promax rotation was conducted to identify an alternative factor structure that provides a better fit to the observed data. Examination of factor eigenvalues, scree plot, and parallel analysis suggested that a 3 – factor solution was optimal. The first factor (Defensive Confidence – General, 5 – items) contained items focused on individuals' overall ability to defend their points of view (e.g., "I can defend my points of view when I want to"). The second factor (Defensive Confidence – Conflicting Information, 2 items) contained items focused on individuals ability to defend their views when confronted with information that directly challenges their belief structure (e.g., "Compared to most people, I am able to maintain my own opinions regardless of what conflicting information I receive"). The third factor (Defensive Weakness, 4 – items) contained reverse-scored items solely.

| Item | F1 (Defensive Confidence – General) | F2 Defensive Confidence – Conflicting Information | F3 – Defensive Weakness) |
|---|---|---|-----------------------------|
| During discussions of issues I care about, I can successfully defend my ideas. | .78 | | |
| I have many resources to defend my point of view when I feel my ideas are under attack. | .83 | | |
| When I pay attention to the arguments proposed by people who disagree with me, I feel confused and cannot think * | | | .71 |
| When trying to defend my point of view, I am not at all articulate.* | | | .75 |
| I have developed ways of "winning" when I debate issues I care about. | .61 | | |
| I could stand by my ideas in front of anybody. | | | |
| No matter what I read or hear, I am always capable of defending my feelings and opinions | | .97 | |
| I think of myself as somebody who has enough information to defend his or her points of view | .47 | | |
| Compared to most people, I am able to maintain my own opinions regardless of what conflicting information I receive. | | .65 | |
| Compared to people I know who are very successful at maintaining their point of view, I have somewhat weak, underdeveloped opinions.* | | | .66 |
| I can defend my points of view when I want to | .46 | | |
| I am unable to defend my own opinions successfully. * | | | .65 |

Note: * indicate reverse-scored item; Items were determined to share a meaningful relationship with a latent construct when factor

loadings exceeded .33 (Tabachnick & Fidell, 2013).

Conclusion

Results of the current examination call into question the unidimensionality of the Defensive Confidence Scale. Specifically, our results provide evidence that the defensive confidence scale is assessing two distinct components of the defensive confidence construct, capturing variation in "general defensive confidence" and defensive confidence when presented with anomalous information.

Further, our results provide additional evidence that the incorporation of reverse-scored items on survey measures often produces unintended pseudofactors (Distefano & Motl, 2006).

Overall, we believe researchers' ability to assess defensive confidence may be enhanced using a reduced version of the instrument that discards reverse scored-items and acknowledges the multidimensional nature of the defensive confidence construct.

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