Development and Validation of the Need for Privacy Scale (NFP-S)

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The need for privacy accompanies various life situations, from the ride in a crammed tram to a conversation with a stranger on a dating app.

We define the need for privacy as an individual's cross-situational tendency to actively and consciously define, communicate and pursue a desired level of privacy. The need for privacy represents a higher-order psychological need (Doyal & Gough, 1991; Ryan & Deci, 2000), i.e. it is not characterized by a state of life-threathening deficiency, but its fulfillment aids the satisfaction of more fundamental needs, such as autonomy, emotional release, self-evaluation, and protected communication (Westin, 1967). The need for privacy constitutes a strong preference or liking, which manifests in various situations (Altman, 1975; H. Li et al., 2010; Masur, 2019; Teutsch et al., 2018; Visinescu et al., 2016). Building on Burgoon's (1982) privacy dimensions, we propose four different dimensions of the need for privacy: (i) informational need for privacy, the desire to be in control of information sharing to a broad audience; (ii) social need for privacy, which describes the affinity of individuals and groups to simultaneously strive for closeness with some people while establishing distance from others; (iii) psychological need for privacy, reflecting the deliberate control of one's cognitive inputs (attitudes, beliefs and values) and outputs (sharing information or secrets and seeking emotional support or advice); and (iv) physical need for privacy, the wish to be free from intrusion and surveillance and create personal space around oneself.

Building on the definition of the need for privacy as a personality trait, reflecting a higher-order need, we aim to develop a scale that captures the proposed need for privacy dimensions. Our goal is to provide a short, comprehensive instrument that can easily be administered in various situations.

The process of scale development and validation is oriented towards the recommended ten steps of scale development by Carpenter (2018). Following our precise definition, the first step was to develop items for the four need for privacy dimensions. Next, we used data from a longitudinal study collected in five waves between 2014 and 2017 to conduct exploratory factor analysis. We used an oblique promax rotation, since the dimensions are expected to

correlate. Thirdly, we applied confirmatory factor analysis to verify the multi-dimensional factorial structure and revise the item pool, if necessary. Lastly, we validated the scale in three steps. To assess construct validity, we investigated relations between the need for privacy and loneliness as well as online privacy concerns; both of which have shown to relate to the need for privacy (Hosman, 1991; Y. Li, 2011; Yao et al., 2007). Next, we explored gender differences in need for privacy (Hosman, 1991). Lastly, we determined criterion validity by determining correlations of the need for privacy and relevant online media constructs, i.e. online data protection and online information disclosure (Schäwel, 2019; Yao & Linz, 2008).

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