The role of privacy cynicism in shaping privacy behavior online:

A close replication of Choi et al. (2018) and Lutz et al. (2020)

Previous scholars have long struggled to explain the paradoxical relationship between privacy concerns and behaviors (for an overview, see Kokolakis, 2017). Among other things, scholars argued that the benefits of disclosing and opening up outweigh the risks involved, people lack the skills to protect themselves online, or the methods used were simply inappropriate. However, none of these explanations fully explains why the relationship between privacy concerns privacy behavior remains at best small (cf. meta-analysis by Baruh et al., 2017) .

A recent explanation focuses on user resignation, apathy, or fatigue. The argument is that the complexity of online privacy leaves users uncertain about whether they should be concerned, leads to mistrusts towards the companies that collect their data, and ultimately results in feelings of powerlessness and resignation (Hoffmann et al., 2016). Choi et al. (2018) and Lutz et al. (2020) were among the first to quantitatively study the role of privacy cynicism/fatigue in shaping online privacy behavior (Fig. 1). Whereas the former found that privacy fatigue positively predicted both intentions to disclose personal information and disengagement with privacy overall, the latter found that mistrust positively and resignation negatively predicted privacy protection behaviors. Despite these initial findings, not much is known about the robustness of these effects. In fact, attempts to closely replicate individual findings are scarce in privacy research and communication research overall. In light of this, our goal was to conduct an exact replication of the two original studies.

Methods

We conducted a preregistered cross-sectional survey with $n = 787$ participants ($M_{age} = 53.06$, $SD = 17.5$; 60.5% female) in which we replicated both studies at the same time. We used the exact same scales and measures as described in the original studies. We first estimated the exact same structural equation models (SEM) that were described in the original papers and then modified these models to increase model fit. To assess replication success, we followed the framework proposed by LeBel et al. (2018). evaluated individual paths from both models based on whether or not a signal is detected (i.e.,

a significant effect was found), and whether or not it is consistent with the original effect size (original effect size included in 95% confidence interval).

Results and Discussion

In the case of Choi et al., all four paths yield significant effect sizes in the same direction of the original study (Fig. 2). However, effect sizes were slightly smaller for the relationships between privacy concerns and both outcomes. In the case of Lutz et al., many original effect sizes are included in the replication's confidence intervals (Fig. 2). However, whereas mistrust likewise positively predicted higher privacy protection, resignation resulted in a similarly negative, yet non-significant relationship. Uncertainty led to less privacy protection behavior, a relationship that was non-significant in the original study. The distribution of effect sizes did not differ between original and replication (Fig. 3A) and effect sizes correlated highly ($r = .91$; Fig. 3B). In fact, 75% of the estimated paths across both models replicated perfectly and 79% aligned in significance and direction. Finally, given that we replicated both studies in one survey, we explored the relationships between different subdimensions of privacy cynicism/fatigue and the different privacy behaviors in more detail (Fig. 4). Whereas resignation was the strongest positive predictor of disclosure intention and disengagement, it did not predict engagement privacy protection. Emotional exhaustion, in contrast, positively predicted all three outcomes. Uncertainty predicted privacy protection behavior, but not disclosure or disengagement. Overall, both studies, for the most part, replicated. This lends further credence to the suggested role of privacy cynicism/fatigue in shaping online privacy behavior.

References

Baruh, L., Secinti, E., & Cemalcilar, Z. (2017). Online privacy concerns and privacy management: A meta-analytical review. *Journal of Communication*, *67*(1), 26–53. https://doi.org/10.1111/jcom.12276.

Choi, H., Park, J., & Jung, Y. (2018). The role of privacy fatigue in online privacy behavior. *Computers in Human Behavior*, *81*, 42–51.

Hoffmann, C. P., Lutz, C., & Ranzini, G. (2016). Privacy cynicism: A new approach to the privacy paradox. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, *10*(4).

Kokolakis, S. (2017). Privacy attitudes and privacy behaviour: A review of current research on the privacy paradox phenomenon. *Computers & Security*, *64*, 122–134.

LeBel, E. P., McCarthy, R. J., Earp, B. D., Elson, M., & Vanpaemel, W. (2018). A unified framework to quantify the credibility of scientific findings. *Advances in Methods and Practices in Psychological Science*, *1*(3), 389–402.

Lutz, C., Hoffmann, C. P., & Ranzini, G. (2020). Data capitalism and the user: An exploration of privacy cynicism in Germany. *New Media & Society*, *22*(7), 1168–1187.
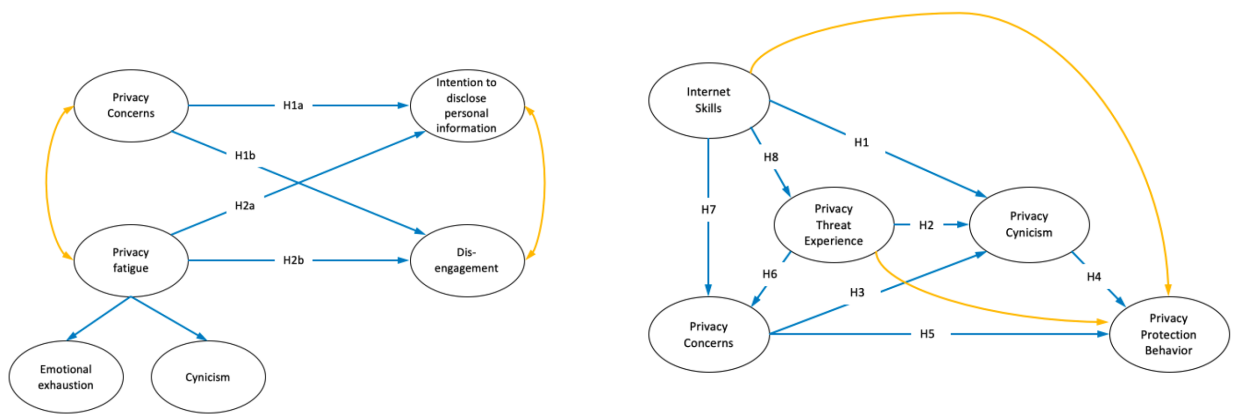
Fig. 1. Conceptual models by Choi et al, 2018 (left) and Lutz et al., (2020). Yellow paths represent additional paths that we estimated in the modified replication.
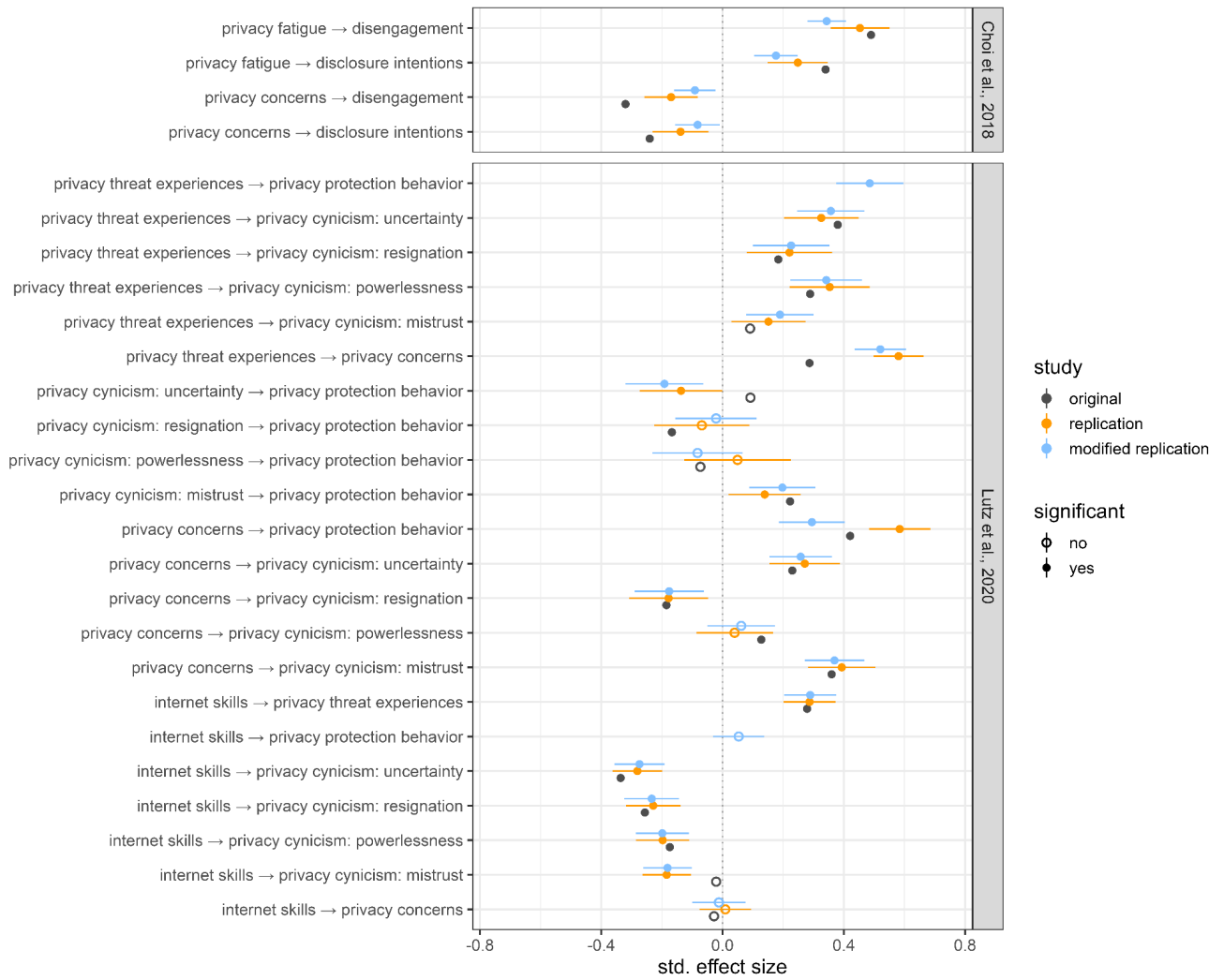
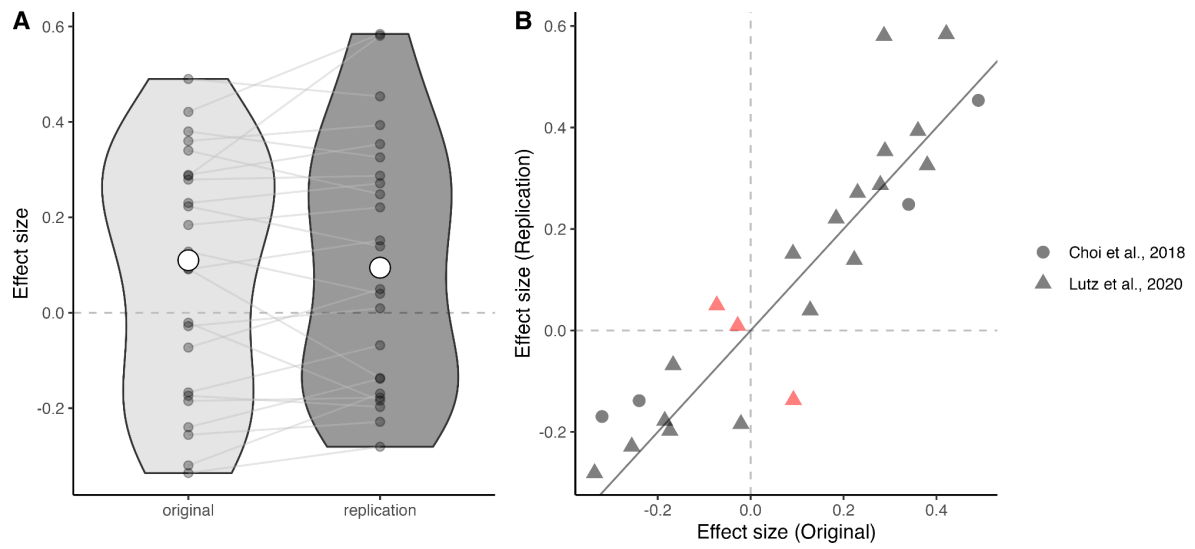*Fig. 2.* Results of the two replications.

Fig. 3. Comparison between original and replication effect sizes across all models in all three studies. Each dot is one path in a model. A: Mirrored density plots of the differences between original effect sizes and replication effect sizes. B: Original study effect size versus replication effect size. Red dots are paths that show a different direction in the replication.
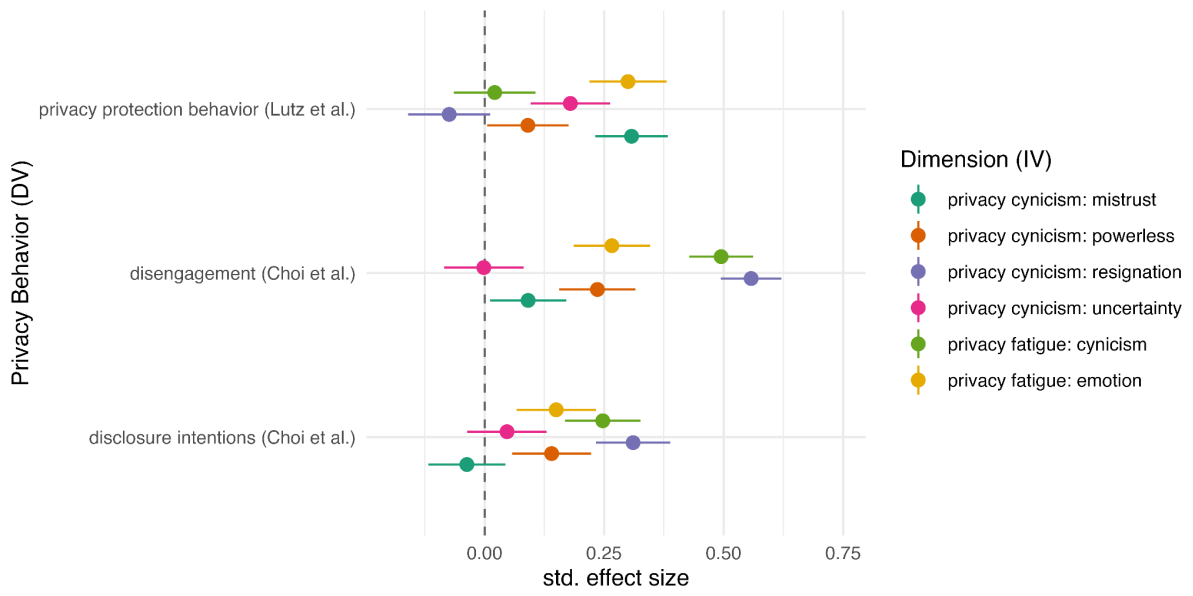
Fig. 4. Results from bivariate structural equation models estimating the relationship between subdimensions of privacy cynicism/fatigue and privacy behaviors.