### **Gonzaga University**

### The Repository of Gonzaga University

Psychology Faculty Scholarship

Psychology

2-25-2022

# Reply to Nielsen et al.: Social mindfulness is associated with countries' environmental performance and individual environmental concern

Niels Van Doesum Leiden University

Ryan Murphy University of Zurich

Marcello Gallucci University of Milano-Bicocca

Adam W. Stivers Gonzaga University, stivers@gonzaga.edu

Follow this and additional works at: https://repository.gonzaga.edu/psychschol

Part of the Psychology Commons

#### **Recommended Citation**

Van Doesum, N. J., Murphy, R. O., Gallucci, M., Aharonov-Majar, E., Athenstaedt, U., Au, W. T., Bai, L., Böhm, R., Bovina, I., Buchan, N. R., Chen, X.-P., Dumont, K. B., Engelmann, J. B., Eriksson, K., Euh, H., Fiedler, S., Friesen, J., Gächter, S., Garcia, C., ... Van Lange, P. A. M. (2022). Reply to Nielsen et al.: Social mindfulness is associated with countries' environmental performance and individual environmental concern. Proceedings of the National Academy of Sciences, 119(9), e2122077119. https://doi.org/10.1073/pnas.2122077119

This Article is brought to you for free and open access by the Psychology at The Repository of Gonzaga University. It has been accepted for inclusion in Psychology Faculty Scholarship by an authorized administrator of The Repository of Gonzaga University. For more information, please contact jamesh@gonzaga.edu.

## REPLY TO NIELSEN ET AL.: Social mindfulness is associated with countries' environmental performance and individual environmental concern

Niels J. Van Doesum<sup>a,b,1,2</sup>, Ryan O. Murphy<sup>c,d,2</sup>, Marcello Gallucci<sup>e,2</sup>, Efrat Aharonov-Majar<sup>f</sup>, Ursula Athenstaedt<sup>9</sup>, Wing Tung Au<sup>h</sup>, Liying Bai<sup>1</sup>, Robert Böhm<sup>j,k,1</sup>, Inna Bovina<sup>m</sup>, Nancy R. Buchan<sup>n</sup>, Xiao-Ping Chen<sup>o</sup>, Kitty B. Dumont<sup>p</sup>, Jan B. Engelmann<sup>q,r</sup>, Kimmo Eriksson<sup>s</sup>, Hyun Euh<sup>t</sup>, Susann Fiedler<sup>u</sup>, Justin Friesen<sup>v</sup>, Simon Gächter<sup>w</sup>, Camilo Garcia<sup>x</sup>, Roberto Gonzalez<sup>y</sup>, Sylvie Graf<sup>2</sup>, Katarzyna Growiec<sup>aa</sup>, Serge Guimond<sup>bb</sup>, Martina Hrebickova<sup>z</sup>, Elizabeth Immer-Bernold<sup>cc</sup>, Jeff Joireman<sup>dd</sup>, Gokhan Karagonlar<sup>ee</sup>, Kerry Kawakami<sup>ff</sup>, Toko Kiyonari<sup>99</sup>, Yu Kou<sup>hh</sup>, Alexandros-Andreas Kyrtsis<sup>ii</sup>, Siugmin Lay<sup>ii</sup>, Geoffrey J. Leonardelli<sup>kk,II</sup>, Norman P. Li<sup>mm</sup>, Yang Li<sup>nn</sup>, Boris Maciejovsky<sup>oo</sup>, Zoi Manesi<sup>pp</sup>, Ali Mashuri<sup>qq,rr</sup>, Aurelia Mok<sup>ss</sup>, Karin S. Moser<sup>tt,uu</sup>, Ladislav Motak<sup>vv</sup>, Adrian Netedu<sup>ww</sup>, Michael J. Platow<sup>xx</sup>, Karolina Raczka-Winkler<sup>sy</sup>, Christopher P. Reinders Folmer<sup>zz,aaa</sup>, Cecilia Reyna<sup>bbb</sup>, Angelo Romano<sup>a</sup>, Shaul Shalvi<sup>q</sup>, Claudia Simāo<sup>ccc</sup>, Adam W. Stivers<sup>ddd</sup>, Pontus Strimling<sup>eee</sup>, Yannis Tsirbas<sup>ii</sup>, Sonja Utz<sup>fff,g99</sup>, Leander van der Meij<sup>hhh</sup>, Sven Waldzus<sup>iii</sup>, Yiwen Wang<sup>ijj</sup>, Bernd Weber<sup>sy</sup>, Ori Weisel<sup>kkk</sup>, Tim Wildschut<sup>III</sup>, Fabian Winter<sup>mmm</sup>, Junhui Wu<sup>nnn,ooo</sup>, Jose C. Yong<sup>ppp</sup>, and Paul A. M. Van Lange<sup>pp,2</sup>,

Nielsen et al. (1) argue that Van Doesum et al. (2) need to consider three points for their interpretation of a positive association between individual-level social mindfulness (SoMi) and environmental performance (EPI) at the country level (3). The association is weaker when 1) it is controlled for GDP and 2) when the data of three countries are removed; also, 3) the data do not address the association between SoMi and individual-level environmental concern. We discuss these points in turn.

First, as we noted in a previous reply (4), there is a strong association between GDP and EPI (the Pearson correlation is 0.64 for raw GDP and 0.78 for log-transformed GDP). This should not be surprising, because, as the name reflects, EPI addresses "performance" which is linked to both motivation and the ability to do so. Ability is clearly associated with a country's resources to have an impact. Thus, the observed correlation is a valid result, on average across countries, and it should not be a surprise that GDP accounts for some of the shared variance between SoMi and EPI. Furthermore, we should note that EPI also accounts for shared variance between SoMi and GDP, and we see no strong reason to suggest that GDP should be considered a more proximal predictor of SoMi than EPI.

Second, our cross-national study included 31 countries (2). We agree that the sample is not very large. But leaving out the data of three countries for no special reason, other than that they are influential, is not convincing. In our view, it is good scientific practice to consider each data point as valuable and informative. Moreover, one could also arbitrarily remove three other countries and, in doing so, strengthen the association in the remaining data.

Third, Nielsen et al. (1) conducted a study to complement our data by examining the association between SoMi and four indicators of environmental concern. This study yielded associations that were small in magnitude, yet three of four correlations were statistically significant. Recall that SoMi is focused on dyads and uses a choice-related methodology with less reliance on language. Methodological differences may attenuate associations.

We regard Nielsen et al.'s (1) finding that an inherently dyadic measure predicts broader environmental concerns relevant to society's future as

Author contributions: N.J.V.D., R.O.M., M.G., and P.A.M.V.L. wrote the paper; and E.A.-M., U.A., W.T.A., L.B., R.B., I.B., N.R.B., X.-P.C., K.B.D., J.B.E., K.E., H.E., S.F., J.F., S. Gächter, C.G., R.G., S.G., K.G., S. Guimond, M.H., E.I.-B., J.J., G.K., K.K., T.K., Y.K., A.-A.K., S.L., G.J.L., N.P.L., Y.L., B.M., Z.M., A. Mashuri, A. Mok, K.S.M., L.M., A.N., M.J.P., K.R.-W., C.P.R.F., C.R., A.R., S.S., C.S., A.W.S., P.S., Y.T., S.U., L.v.d.M., S.W., Y.W., B.W., O.W., T.W., F.W., J.W., J.C.Y. revised the paper.

The authors declare no competing interest.

This article is distributed under Creative Commons Attribution-NonCommercial-NoDerivatives License 4.0 (CC BY-NC-ND).

<sup>&</sup>lt;sup>1</sup>To whom correspondence may be addressed. Email: n.j.van.doesum@fsw.leidenuniv.nl.

<sup>&</sup>lt;sup>2</sup>N.J.V.D., R.O.M., M.G., and P.A.M.V.L. contributed equally to this work.

Published February 25, 2022.

promising—and consistent with the broader idea that SoMi, as a case of kindness to another person, is connected to the presence and development of social capital. They also found associations between another dyadic measure of prosociality (social value orientation) and environmental concerns. These findings complement a recent finding that SoMi is associated with global sustainability, especially ecological footprint of consumption (5). It is important to recognize that there are myriad ingredients to building sustainable societies. Being socially mindful is likely to be one of them.

\*Social, Economic and Organisational Psychology, Institute of Psychology, Leiden University 2300 RB Leiden, The Netherlands; <sup>b</sup>Knowledge Centre for Psychology and Economic Behaviour, Leiden University 212 HS Leiden, The Netherlands; <sup>b</sup>Cepartment of Economics, University of Inano-Bioccac 2012 (Milano, Taly: Department of Psychology, Ben Guino University of Nano-Bioccac 2012 (Milano, Taly: Department of Psychology, University of Capenhagen 1333 Copenhagen 1333 Copenhagen

- 2 N. J. Van Doesum et al., Social mindfulness and prosociality vary across the globe. Proc. Natl. Acad. Sci. U.S.A. 118, e2023846118 (2021).
- 3 Environmental Performance Index, 2020 EPI Results. https://epi.yale.edu/epi-results/2020/component/epi. Accessed 22 October 2021.
- **4** N. J. Van Doesum et al., Reply to Komatsu et al.: From local social mindfulness to global sustainability efforts? Proc. Natl. Acad. Sci. U.S.A., 10.1073/pnas. 2119303118 (2022).
- 5 H. Komatsu, J. Rappleye, I. Silova, Social mindfulness for global environmental sustainability? Proc. Natl. Acad. Sci. U.S.A., 10.1073/pnas.2118710118 (2022).

<sup>1</sup> Y. A. Nielsen, K. A. Scigała, L. Nockur, T. A. G. Venema, S. Pfattheicher, A cautious note on the relationship between social mindfulness and concern with environmental protection. *Proc. Natl. Acad. Sci. U.S.A.*, 10.1073/pnas.2120348119 (2022).