The new framework in action: Open science and pioneering funding

Editor-in-Chief's Introduction to the Issue

Gregg R. Murray

In their introduction in the previous issue, the incoming editorial team laid out a "new framework" for this journal (Murray, Beall, Fletcher, Grillo, Senior, & Mansell, 2020). The framework identified open science, in particular pre-registered studies and registered reports, as one point of emphasis. In this special issue, these innovations are on full display to important effect.

In the summer of 2018, the journal, in conjunction with guest editors Michael Bang Petersen, Joshua M. Tybur,and Patrick A. Stewart, issued a call for proposals for "research on how, why, and when the emotion of disgust shapes political attitudes and behaviors." As the call notes, disgust is a basic emotion that serves as a powerful motivator of human behavior (Oaten, Stevenson, & Case, 2009; Tybur, Lieberman, & Griskevicius, 2009). While it is usually associated with considerations of food, sex, and disease, research suggests that disgust also plays a role in political behavior. For instance, some research has associated disgust with individuals' ideological leanings (e.g., Inbar, Pizarro, Iyer, & Haidt, 2012; Smith, Oxley, Hibbing, Alford, & Hibbing, 2011; Terrizzi, Shook, & Ventis, 2010), while other research has associated it with prejudice against vulnerable groups such as the homeless, immigrants, and the LGBTQ community (e.g., Aarøe, Petersen, & Arceneaux, 2017; Clifford & Piston, 2017; Inbar, Pizarro, Knobe, & Bloom, 2009; Navarrete & Fessler, 2006). Of significance for democratic societies, research has also suggested that this emotion influences political deliberation such that disagreeable political arguments evoke disgust in some individuals thereby motivating them to avoid thoughtful evaluation of views they oppose (MacKuen, Wolak, Keele, & Marcus, 2010). From a broad view, research into disgust places emotional and biological processes beside strict rationality among the pillars of political behavior.

The call included two significant components. First, the research projects were required to adhere to strong open science principles in the form of reproducible research. In particular, the selected projects had to identify publicly methods and expectations prior to data collection in the form of pre-registered studies or registered pre-analysis plans (i.e., registered reports). Further, if accepted for publication, the authors were required to make their study materials public before release of the special issue. For its part, the journal committed to making final publication decisions be independent from outcomes, including null findings and failed replications.

Second, the Association for Politics and the Life Sciences (APLS), the scholarly society that founded and owns Politics and the Life Sciences, offered funding of \$1,500 USD for data collection and related research expenses for each of up to seven projects. This investment in science by APLS is noteworthy. In this time of controversy over the costs and financial dynamics of the enterprise of scholarly publication, APLS stands out along with a small handful of other scholarly societies that reinvest their journals' revenues back into the production of science. As well, the reinvestment made by APLS constituted the majority of the revenues it received from the journal that year. Put another way, the scientific endeavor, not, for instance, the association or editors, was the primary beneficiary of the association's financial revenues received from the publisher for that year. This is a laudable financial model that greatly benefits science and that could serve to address some of the long-term concerns about finances in the scholarly publication enterprise.

The response to the call was positive and the findings fruitful. In the end, seven projects were funded, with six of the resulting articles published in this issue. The seventh article, for which timely data collection became unrealistic due to a natural disaster followed by the coronavirus pandemic, is scheduled to be published in a future issue. This is yet another reminder that even expertly planned research can go awry and, in general, "doing" science is hard. The guest editors give an overview of the findings and their implications for disgust research in the next article (Petersen, Tybur, & Stewart, 2020).

I will take the opportunity here, though, to highlight the valuable contribution made by the open science approach – that is, study and analysis plan registration

doi: 10.1017/pls.2020.24

prior to data collection – required for the articles in this special issue. The detailed findings appear and should be reviewed in the individual articles, but, in broadest terms, the results include a large proportion of null findings that raise a number of important and interesting questions for current and future disgust researchers. These results, though, should not be surprising. Allen and Mehler (2019) report that pre-registered biomedical and psychological science studies report null finding for between 61% and 66% of their hypotheses, while traditional (i.e., non-registered) studies report null findings for from 5% to 20% of hypotheses. It is likely that results such as these are the norm researchers can expect from advances in the scientific process in the form of open science practices.

Finally, it is important to thank the many reviewers for their well-considered and insightful feedback on the multiple manuscripts and revisions that they supported. Further, it is crucial to acknowledge and thank the guest editors of this special issue, Michael Petersen, Josh Tybur, and Patrick Stewart, for their expert, diligent, and time consuming efforts on behalf of the journal, the authors, and, indeed, the scientific endeavor. Finally, it is important to also acknowledge and thank the Association for Politics and the Life Sciences for investing in and advancing science. This is the new framework in action.

References

Aarøe, L., Petersen, M. B., & Arceneaux, K. (2017). The behavioral immune system shapes political intuitions: Why and how individual differences in disgust sensitivity underlie opposition to immigration. *American Political Science Review*, 111(2), 277-294.

Allen, C., & Mehler, D. M. (2019). Open science challenges, benefits and tips in early career and beyond. *PLoS biology*, 17 (5), e3000246.

Clifford, S., & Piston, S. (2017). Explaining public support for counterproductive homelessness policy: The role of disgust. *Political Behavior*, 39(2), 503-525.

Inbar, Y., Pizarro, D., Iyer, R., & Haidt, J. (2012). Disgust sensitivity, political conservatism, and voting. *Social Psychological and Personality Science*, 3(5), 537-544.

Inbar, Y., Pizarro, D. A., Knobe, J., & Bloom, P. (2009). Disgust sensitivity predicts intuitive disapproval of gays. *Emotion*, 9(3), 435-439.

MacKuen, M., Wolak, J., Keele, L., & Marcus, G. E. (2010). Civic engagements: Resolute partisanship or reflective deliberation. *American Journal of Political Science*, 54(2), 440-458.

Murray, G., Beall, A., Fletcher, A., Grillo, M., Senior, C., & Mansell, J. (2020). Politics and the Life Sciences: The Rise of a New Framework. *Politics and the Life Sciences*, 39(1), 1-3. doi: 10.1017/pls.2019.21

Navarrete, C. D., & Fessler, D. M. (2006). Disease avoidance and ethnocentrism: The effects of disease vulnerability and disgust sensitivity on intergroup attitudes. *Evolution and Human Behavior*, 27(4), 270-282.

Oaten, M., Stevenson, R. J., & Case, T. I. (2009). Disgust as a disease-avoidance mechanism. *Psychological Bulletin*, 135(2), 303-321.

Petersen, M. B., Tybur, J. M., & Stewart, P. A. (2020). Disgust and political attitudes: An introduction. *Politics and the Life Sciences*, 39(2). https://doi.org/10.1017/pls.2020.23

Smith, K. B., Oxley, D., Hibbing, M. V., Alford, J. R., & Hibbing, J. R. (2011). Disgust sensitivity and the neurophysiology of left-right political orientations. *PloS one*, 6 (10), e25552.

Terrizzi Jr, J. A., Shook, N. J., & Ventis, W. L. (2010). Disgust: A predictor of social conservatism and prejudicial attitudes toward homosexuals. *Personality and Individual Differences*, 49(6), 587-592.

Tybur, J. M., Lieberman, D., & Griskevicius, V. (2009). Microbes, mating, and morality: Individual differences in three functional domains of disgust. *Journal of Personality and Social Psychology*, 97(1), 103-122.