

LETTERS

Edited by Jennifer Sills

Defining the happiness gap

IN THEIR REPORT “Conservatives report, but liberals display, greater happiness” (13 March 2015, p. 1243), S. P. Wojcik *et al.* show that liberals display more cheer in smiles, positive word choice, and use of positive emoticons. The authors explicitly contrast these findings to the allegedly higher happiness levels of conservatives found with self-report scales (1). However, as Wojcik *et al.* note, both the size and direction of the effect greatly depend on the type of measurement.

Such variation does not imply that ideological preferences cannot have a substantial effect on happiness in specific circumstances. Indeed, the so-called happiness gap may be context-dependent (1–3). For instance, a small relationship between conservatism and self-reported life satisfaction emerges in the United States, whereas it is absent in Europe (1). Unfortunately, Wojcik *et al.* have only presented U.S. data.

Moreover, their findings are partly based on the public behavior of politicians. Obviously, self-presentation has a strategic component and does not necessarily reflect one's true inner state (4). For liberal politicians, smiling is useful indeed, considering that especially left-wing voters prefer friendly and agreeable politicians (5).

The negligible main effects indicate that the question of whether liberals or conservatives are happier is rather futile in scientific terms. A more meaningful avenue for future studies would be investigating which contexts and life conditions affect happiness differently for conservatives and liberals (3, 6).

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Are conservatives happier than liberals?

Response

IN OUR ANALYSES of more than 6000 political liberals and conservatives, we found that conservatives reported greater life satisfaction than liberals, but that liberals displayed more frequent, more intense, and more genuine happiness in their behavior. We concluded from these findings that whether liberals or conservatives appear happier depends on how happiness is measured.

In their Letter, Van Hiel and colleagues reiterate that our analyses were primarily restricted to American participants. As we outlined in our Report's introduction, we made this decision because liberalism and conservatism have very different, sometimes even oppositional, meanings across different national contexts. Regardless, Van Hiel *et al.*'s specific concern is curious, given that the association between conservatism and self-reported life satisfaction in European samples ($r = 0.11$) does not appear to be weaker than in North American samples ($r = 0.09$) (1). Equally curious is their concern about the self-presentational components of happiness expression among politicians, given that our FACS analyses were purposefully implemented to differentiate between more and less genuine expressions of happiness, and that our findings replicated in samples of both politicians and the general public.

Van Hiel and colleagues oversimplify our complex pattern of results, mischaracterize

our findings as “negligible,” and then report that further scientific investigation is “futile.” But the relationship between ideology and subjective well-being is more productively and accurately understood as nuanced, and this nuance has both scientific and practical import. Why do measurements of such closely related constructs reveal opposing patterns of results? As revealed in our Report, group differences in self-reported life satisfaction can be driven by differences in self-enhancing styles of self-report (2). This finding has important implications for understanding subjective well-being research, given that self-reported life satisfaction is perhaps the most frequently used measure of subjective well-being (3, 4), and given the commonness of comparing self-reported subjective well-being across nonrandomized groups that may differ in self-enhancement (5).

In our view, the contradictory patterns of results across measures and methods do not cancel each other out to simply create “equal” levels of happiness. Instead, they provide insight into the complexity involved in the measurement of well-being, as well as in the psychological processes underlying human happiness.

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Protect researchers from harassment

IT IS DEEPLY troubling that an animal rights extremist campaign will stop an important line of research, and the entire scientific community should be concerned when, yet again, disruptive actions by extremists silence important, well-regulated science (“Researcher drops primate work,” *News In Brief*, 8 May, p. 613). It is unacceptable that researchers worldwide are subject to harassment, threats of violence, illegal taping, and property damage, and we urge aggressive enforcement of laws that protect responsible research, scientific institutions, and scientists.

The Society for Neuroscience has long urged research institutions to be proactive

in identifying and supporting researchers who experience animal rights threats. Nonhuman primate models, the research subject in this case, are critical for advancing scientific understanding of the brain, and to improve the health and well-being of humans and nonhuman species. Research on animals, including nonhuman primates, provides the basis for breakthroughs in the treatment of cancer, heart disease, and devastating infectious diseases like HIV, Ebola, and influenza. Monkey research played a key role in the development of deep-brain stimulation for treating conditions such as Parkinson's disease, depression, and obsessive-compulsive disorder. Biomedical research operates within the laws and guidelines set by multiple oversight bodies to ensure humane treatment of animals.

For neuroscience, this troubling news will only lengthen the time needed to better understand complex neural systems, which are crucial to find treatments for more than 1000 disorders—including addiction, schizophrenia, and Alzheimer's disease—which afflict more than 1 billion people worldwide. We urge the scientific community to make a strong stand about the irreplaceable role of animals in research, and for organizations to sign on to the international statement supporting animal research, found at the International Brain Research Organization (1).

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TECHNICAL COMMENT ABSTRACTS

Comment on “Principles of ER cotranslational translocation revealed by proximity-specific ribosome profiling”

David W. Reid and Christopher V. Nicchitta
Jan *et al.* (Research Article, 7 November 2014, p. 716) propose that ribosomes translating secretome messenger RNAs (mRNAs) traffic from the cytosol to the endoplasmic reticulum (ER) upon emergence of the signal peptide and return to the cytosol after termination. An accounting of controls demonstrates that

mRNAs initiate translation on ER-bound ribosomes and that ribosomes are retained on the ER through many cycles of translation.

Full text at <http://dx.doi.org/10.1126/science.aaa7257>

Response to Comment on “Principles of ER cotranslational translocation revealed by proximity-specific ribosome profiling”

Calvin H. Jan, Christopher C. Williams,
Jonathan S. Weissman

Reid and Nicchitta propose that most cellular translation is carried out by a noncycling pool of endoplasmic reticulum (ER)-associated ribosomes. However, proximity-specific ribosome profiling data place an upper bound of about 7 to 16% on the fraction of cytosolic protein translation carried out by ribosomes accessible to ER-tethered biotin ligases. Moreover, yeast pulse-labeling experiments argue against there being a static population of ER-associated ribosomes.

Full text at <http://dx.doi.org/10.1126/science.aaa8299>

Comment on “Planetary boundaries: Guiding human development on a changing planet”

Fernando Jaramillo and Georgia Destouni
Steffen *et al.* (Research Article, 13 February 2015, p. 736) recently assessed current global freshwater use, finding it to be well below a corresponding planetary boundary. However, they ignored recent scientific advances implying that the global consumptive use of freshwater may have already crossed the associated planetary boundary.

Full text at <http://dx.doi.org/10.1126/science.aaa9629>

Response to Comment on “Planetary boundaries: Guiding human development on a changing planet”

Dieter Gerten, Johan Rockström, Jens Heinke, Will Steffen, Katherine Richardson,
Sarah Cornell

Jaramillo and Destouni claim that freshwater consumption is beyond the planetary boundary, based on high estimates of water cycle components, different definitions of water consumption, and extrapolation from a single case study. The difference from our analysis, based on mainstream assessments of global water consumption, highlights the need for clearer definitions of water cycle components and improved models and databases.

Full text at <http://dx.doi.org/10.1126/science.aab0031>