

# MODERN ETHICS?

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# COMMON PROBLEMS

COMMON PROBLEMS

COMMON SOLUTIONS

# INTEGRITY

## COMMON PROBLEMS

## COMMON SOLUTIONS

UNCOMMON PROBLEMS

UNCOMMON SOLUTIONS

# ETHICS

## UNCOMMON PROBLEMS

## UNCOMMON SOLUTIONS

UNCOMMON



COMMON

ETHICS



INTEGRITY



# ETHICS



# SET THE STANDARDS

TAUGHT THE  
STANDARDS

HOW TO THINK  
ABOUT ETHICS?

# SOCIOLOGY OF SCIENCE

# MERTONIAN NORMS

Norm	Counternorm

# MERTONIAN NORMS

Norm	Counternorm
Universalism	

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism

Twenty-nine research teams reached a wide variety of conclusions using different methods on the same data set to answer the same question (about football players' skin colour and red cards).

Twenty-nine research teams reached a wide variety of conclusions using different methods on the same data set to answer the same question (about football players' skin colour and red cards).

- Statistically significant effect
- Non-significant effect





# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy

Using the R package statcheck (v1.0.1), the HTML version of this article was scanned on 2016-08-05 for statistical results (t, r, F, Chi2, and Z values) reported in APA format (for specifics, see Nuijten et al., 2015). An automatically generated report follows.

The scan detected 16 statistical results in APA format, of which 3 contained potentially incorrect statistical results, of which 1 may change statistical significance ( $\alpha = .05$ ). Potential one-tailed results were taken into account when 'one-sided', 'one-tailed', or 'directional' occurred in the text.

The errors that may change statistical significance were reported as:  
 $t(305) = -1.66, p < .05$  (recalculated p-value: 0.09794)

The errors that may affect the computed p-value (but not the statistical significance) were reported as:

$F(2, 55.33) = 4.30, p < .01$  (recalculated p-value: 0.01837)

$F(2, 304) = 4.14, p = .01$  (recalculated p-value: 0.01683)

Note that these are not definitive results and require manual inspection to definitively assess whether results are erroneous.

#### Reference

Nuijten, M. B., Hartgerink, C. H. J., van Assen, M. A. L. M., Epskamp, S., & Wicherts, J. M. (2015). The prevalence of statistical reporting errors in psychology (1985-2013). *Behavior Research Methods*.  
<http://dx.doi.org/10.3758/s13428-015-0664-2>

# PubPeer

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Report

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**Unregistered Submission:** ( December 23rd, 2016 2:30pm UTC )

This is painful, and I learned something here. I was under the impression that since  $F\text{-statistic} = \text{squared } t\text{-statistic}$ , alpha for a one-tailed F-test would equate alpha for a one-tailed t-test. However, F-tests are already one-tailed, plus the  $F = t\text{-squared}$  equation only holds for  $df = 1$ . This is all nicely explained by Daniel Lakens at

<http://daniellakens.blogspot.nl/2016/04/one-sided-f-tests-and-halving-p-values.html>

Thus, the correct p-value here is indeed 0.09316 (which we also report). Needless to say, the effects found here, even though they emerge in three experiments, are rather weak. -CO

Reply

Report

Permalink

PubPeer

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**Peer 3:** ( January 8th, 2017 7:34pm UTC )

In fact, there is a an error in the first analysis.

We reported the wrong statistical test number, and we are sorry for that.

PubPeer

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# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy
Disinterestedness	

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy
Disinterestedness	Self-interestedness

The New York Times

SCIENCE

# *Physicists in Europe Find Tantalizing Hints of a Mysterious New Particle*

By DENNIS OVERBYE DEC. 15, 2015



The New York Times

SCIENCE

# *Physicists in Europe Find Tantalizing Hints of a Mysterious New Particle*

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SCIENCE

## *The Particle That Wasn't*

By DENNIS OVERBYE AUG. 5, 2016

Here's Marty Seligman, past president of the American Psychological Association (APA):<sup>1</sup>

APA presidents are supposed to have an initiative and I thought mine could be “evidence-based treatment and prevention.” So I went to my friend, Steve Hyman, the director of [National Institute of Mental Health]. He was thrilled and told me he would chip in \$40 million dollars if I could get APA working on evidence-based treatment.

So I told CAPP [which owns the APA] about my plan and about NIMH's willingness. I felt the room get chillier and chillier. I rattled on. Finally, the chair of CAPP memorably said, “What if the evidence doesn't come out in our favor?”

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy
Disinterestedness	Self-interestedness
Skepticism	

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy
Disinterestedness	Self-interestedness
Skepticism	Dogmatism

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy
Disinterestedness	Self-interestedness
Skepticism	Dogmatism
Governance	

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy
Disinterestedness	Self-interestedness
Skepticism	Dogmatism
Governance	Administration

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(PREPRINT) PUBLISHING

BY THE SCHOLARS  
FOR THE SCHOLARS

~~BY THE SCHOLARS~~  
~~FOR THE PUBLISHERS~~



# (PREPRINT) PUBLISHING

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AgriXiv

  
  PsyArXiv

 ENGINEERING  
engrxiv  
ARCHIVE

SOC  
ARXIV

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy
Disinterestedness	Self-interestedness
Skepticism	Dogmatism
Governance	Administration
Quality	

# MERTONIAN NORMS

Norm	Counternorm
Universalism	Particularism
Communality	Secrecy
Disinterestedness	Self-interestedness
Skepticism	Dogmatism
Governance	Administration
Quality	Quantity



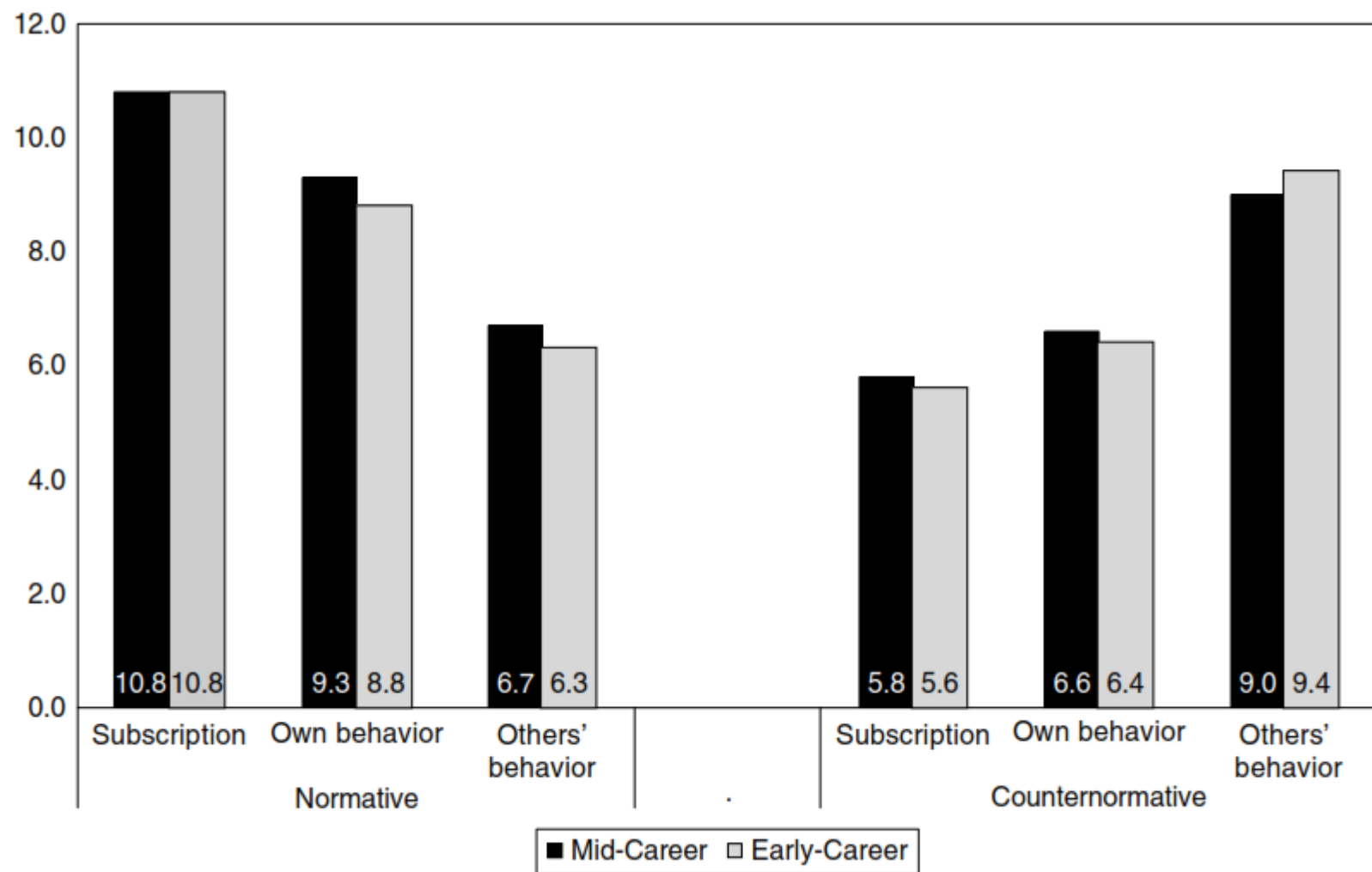


FIG. 2. Means of Normative and Counternormative Subscription and Behavior.

# OPEN SCIENCE = ETHICAL

Norm	Transparency?
Universalism	Improved documentation
Communality	
Disinterestedness	
Skepticism	
Governance	
Quality	

# OPEN SCIENCE = ETHICAL

Norm	Transparency?
Universalism	Improved documentation
Communality	Publicly share all findings
Disinterestedness	
Skepticism	
Governance	
Quality	

# OPEN SCIENCE = ETHICAL

Norm	Transparency?
Universalism	Improved documentation
Communality	Publicly share all findings
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Governance	
Quality	



# OPEN SCIENCE = ETHICAL

Norm	Transparency?
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Quality	

# OPEN SCIENCE = ETHICAL

Norm	Transparency?
Universalism	Improved documentation
Communality	Publicly share all findings
Disinterestedness	Increased accountability
Skepticism	Sharing promotes verification
Governance	Improve project management
Quality	

# OPEN SCIENCE = ETHICAL

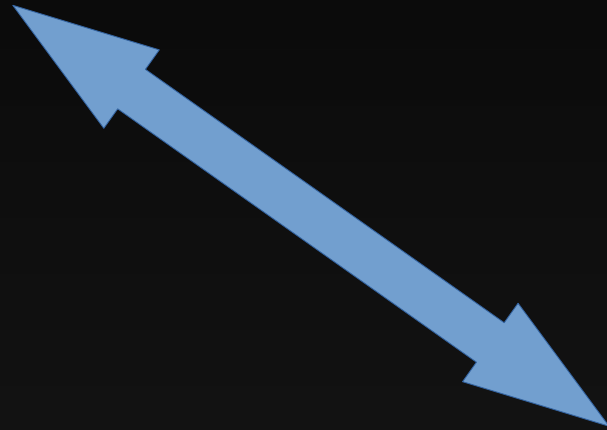
Norm	Transparency?
Universalism	Improved documentation
Communality	Publicly share all findings
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Skepticism	Sharing promotes verification
Governance	Improve project management
Quality	See above!

# OPEN SCIENCE = ETHICAL

Norm	Transparency?
Universalism	Improved documentation
Communality	Publicly share all findings
Disinterestedness	Increased accountability
Skepticism	Sharing promotes verification
Governance	Improve project management
Quality	See above!

# OPEN SCIENCE = DIFFICULT?

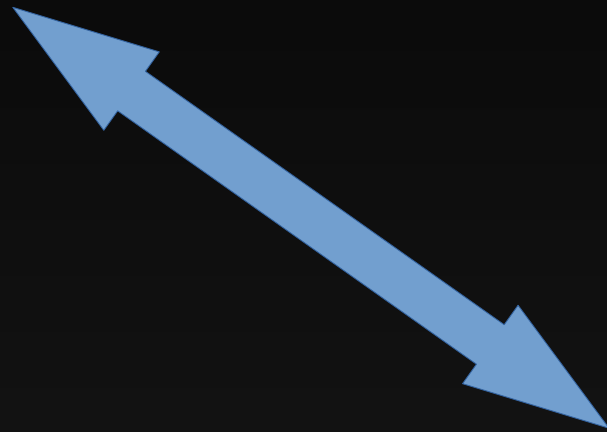
OPEN SCIENCE FRAMEWORK



LINK TO DROPBOX/GITHUB/+MORE

# OPEN SCIENCE = DIFFICULT?

OPEN SCIENCE FRAMEWORK (OSF.IO)



LINK TO DROPBOX/GITHUB/+MORE

URGENCY

# URGENCY

- Publication bias (example of secrecy)
- P-hacking (example of particularism)
- Reputation arguments (example of dogmatism)
- Access to knowledge = unsustainable (example of lack of governance and communality)
- Scholars evaluated not on quality but on bad metrics (Impact Factor, h-index, # of publications)



MERTONIAN NORMS PROVIDE  
FRAMEWORK FOR THINKING ABOUT  
ETHICS

TRANSPARENCY FITS THE MERTONIAN  
NORMS DIRECTLY

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