

# THE NEW ATLANTIS

A JOURNAL OF TECHNOLOGY & SOCIETY

## QUESTIONS ABOUT

### Sexuality and Gender

Findings from the Biological, Psychological, and Social Sciences

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**Report** (English): [www.thenewatlantis.com/sexualityandgender](http://www.thenewatlantis.com/sexualityandgender)

**Report** (Spanish): [www.thenewatlantis.com/sexualidadygenero](http://www.thenewatlantis.com/sexualidadygenero)

**Trailer** (English & Spanish): [https://www.youtube.com/watch?v=O9RE\\_VD1nf8](https://www.youtube.com/watch?v=O9RE_VD1nf8)

**Twitter:** [@TNAjournal](https://twitter.com/TNAjournal)

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1. *Does the report argue that being gay or transgender is a choice?*

No. The report explicitly states that “sexual orientation is not a choice,” but demonstrates that, according to currently available scientific research, “biological factors cannot provide a complete explanation” for sexual orientation and argues that “environmental and experiential factors may also play an important role.” The report does not argue that gender identity is chosen, but notes that “almost nothing is well understood when we seek biological explanations for what causes some individuals to state that their gender does not match their biological sex.”

2. *Does the report prove that the “born that way” hypothesis is false?*

No. The report shows that the “born that way” hypothesis is not supported by scientific evidence. Observing that something has not been proved true is not the same as demonstrating that it is false. What is false is the claim that the “born that way” hypothesis is supported by science.

3. *Does the report argue that sexual orientation or gender identity can be changed through therapy?*

No. The report argues that “sexual orientation may be quite fluid over the life course for some people” and observes that “only a minority of children who experience cross-gender identification will continue to do so into adolescence or adulthood.” The report does not advocate trying to change—or confirm—a person’s sexual orientation or gender identity through therapy. The report’s authors are especially wary of medical interventions directed at children.

The report argues strongly for better addressing the mental health problems (anxiety, depression, suicide) and behavioral and social problems (substance abuse, intimate partner violence) that non-heterosexual and transgender populations experience at much higher rates than the general population.

4. *The report questions the meaning of “sexual orientation” and related terms. Doesn’t the American Psychological Association provide a definition?*

The report includes [an extensive discussion](#) (see pages 15 to 25) of the APA’s definition of “sexual orientation” and the lack of consistency in the way this and related terms have been used in scientific studies. Reading a range of studies in this field will show that this ambiguity presents a significant challenge for research design and interpretation. The report quotes two respected scholars, Lisa M. Diamond and Ritch C. Savin-Williams, on this point:

The more carefully researchers map these constellations—differentiating, for example, between gender identity and sexual identity, desire and behavior, sexual versus affectionate feelings, early-appearing versus late-appearing attractions and fantasies, or social identifications and sexual profiles—the more complicated the picture becomes because few individuals report uniform inter-correlations among these domains.

Lisa Diamond has also observed that “there is currently no scientific or popular consensus on the exact constellation of experiences that definitively ‘qualify’ an individual as lesbian, gay, or bisexual.”

5. *Did the authors simply pick the studies that would support their conclusions?*

No. Throughout the report, Drs. Mayer and McHugh take care to describe and explain the evidence on all sides of the questions they discuss. At the beginning of [Part Two](#), they explain their methodology in reviewing the scientific literature related to mental health outcomes and social stress:

[E]ach section begins by summarizing the most extensive and reliable meta-analyses—papers that compile and analyze the statistical data from the published research literature. For some areas of research, no comprehensive meta-analyses have been conducted, and in these areas we rely on review articles that summarize the research literature without going into quantitative analyses of published data... [W]e also discuss a few select studies that are of particular value because of their methodology, sample size, controls for confounding factors, or ways in which concepts such as heterosexuality or homosexuality are operationalized; and we discuss key studies published after the meta-analyses or review articles were published.

“Sexuality and Gender” is 143 pages long and cites nearly 200 peer-reviewed studies in 373 notes. Nevertheless, no scientific paper can address every previous study in its field, and no methodology for selecting studies is beyond criticism. Drs. Mayer and McHugh “readily

acknowledge that this report is neither an exhaustive analysis of the subjects it addresses nor the last word on them.” Readers who are able to cite specific studies not examined in the report, and to explain why those studies should have been included, will make positive contributions to the public discourse.

6. *Haven't several critics cited a recent paper by J. Michael Bailey that should have been included?*

The authors of “Sexuality and Gender” sought to offer an up-to-date review of the scientific literature, and included seven papers from 2015 and four from 2016. The [paper by Professor Bailey and his colleagues](#), the publication date of which is September 2016, became available online on April 25, 2016, and reached the authors and editors of *The New Atlantis* report too late to be included.

One critic has asserted that the publication of “Sexuality and Gender” should have been delayed to allow time to include the Bailey paper. But any fair-minded scholar will acknowledge that to pause in the preparation of a scientific paper, especially at the end, every time another relevant article becomes available, would mean never finishing. (The Bailey paper, for instance, cites no peer-reviewed articles from 2016, and only four from 2015. Ritch Savin-Williams, in [a commentary that accompanies Professor Bailey's paper](#), cites three 2015 papers and four 2016 or “in press” papers that Bailey left out.)

7. *Does the Bailey paper differ in its conclusions from “Sexuality and Gender”?*

Professor Bailey has written that he agrees with some, though not all, of the major findings of “Sexuality and Gender.” Importantly, he agrees that the social stress model alone does not account for the mental health problems experienced by LGBT populations, that the idea that gender identity is innate and fixed is not consistent with the scientific evidence, and that all of these issues should be studied more openly and rigorously by scientists.

Though the subject matter of “Sexuality and Gender” overlaps with that of the Bailey paper, one difference is that Bailey and his colleagues focus on criticizing environmental explanations for sexual orientation. Drs. Mayer and McHugh did not find that there were many plausible environmental explanations for sexual orientation, and so they focused on discussing the more prominent biological explanations and their shortcomings. As Ritch Savin-Williams observes in his commentary on the Bailey paper, “scholars disagree as to the prominence and interpretation they give to particular findings.”

8. *Do contending papers and studies get us anywhere?*

It is tempting to think not. It sometimes seems that, as one writer has put it, for every study there is an equal and opposite study. And in the accompanying commentary on the Bailey paper, Ritch Savin-Williams writes:

Although [Bailey’s] coverage is indeed wide-ranging, it is somewhat restricted in that an equally celebrated assemblage of scholars might have produced a different manuscript in terms of topics reviewed and conclusions reached.

Nevertheless, the presence of disagreement does not imply the absence of truth, only that debate between scholars is a necessary part of discovering the truth, even in the empirical sciences. For this reason, “Sexuality and Gender” does not claim to be the last word any more than the Bailey paper does.

9. *Does “Sexuality and Gender” qualify as a “study,” since it presents no new data?*

The report is not a study; it is a scientific review of the literature. It tells us what science, at this stage, does and does not support. And it clears away many false claims about what is allegedly known.

10. *If “Sexuality and Gender” is not a study, does that mean it contains nothing new?*

Something that has been published previously may not necessarily be widely known or well understood. Drs. Mayer and McHugh believe there is a clear gap between the certainty with which beliefs about sexual orientation and gender identity seem to be commonly held, and what the science actually shows.

A large majority of articles in peer-reviewed journals are written for a small number of scholars and are available only through subscriptions that cost hundreds of dollars. Even lay readers who try to stay informed on scientific issues do not have easy access to most scientific journals, and usually do not have the background to draw independent conclusions from articles written by experts for other experts. “Sexuality and Gender” seeks to improve public understanding of the issues it addresses by analyzing a large body of research, explaining it clearly for non-experts, and making the explanation available free of charge.

11. *Why should anyone read a science article in a journal that isn’t peer-reviewed?*

*The New Atlantis* is not a peer-reviewed scientific journal; it is editorially reviewed, like many other publications for informed but non-specialist readers, such as *The New Yorker* and *The Atlantic*. Unless these and many other magazines—and all newspapers—should stop publishing on science because they also are not peer-reviewed, this is no reason to dismiss *The New Atlantis* without reading what it publishes.

When publishing essays on technical subjects, *The New Atlantis* fact-checks rigorously and consults a range of experts, as it did in preparing its report. And while “Sexuality and Gender” is not itself the result of a formal peer-review process, the report discusses the findings of hundreds of studies and papers published in peer-reviewed journals.

12. *Why wasn't this report published in a peer-reviewed journal?*

Even setting aside questions of length (“Sexuality and Gender” is much longer than most peer-reviewed papers, and exceeds the word limit of many peer-reviewed journals), peer-reviewed articles are almost always written by experts for experts, and published in journals whose subscriptions are prohibitively expensive. In publishing “Sexuality and Gender,” the editors of *The New Atlantis* hoped to inform the general public, and so made the report easily accessible at no cost.

13. *Isn't it a problem that the authors of “Sexuality and Gender” dissent from the positions of important professional associations?*

That depends on whose position is better grounded in scientific evidence. The sheer number of people who hold a certain opinion demonstrates nothing about its correctness.

Moreover, while professional associations are obligated to promulgate definitions and criteria and conventions, the existence of those definitions and criteria and conventions should not be taken as authoritative indications of universal consensus. “Sexuality and Gender” addresses scientific matters that are the subject of ongoing research and lively debate. Professional associations, such as the American Psychological Association and the American Psychiatric Association, have revised their official positions on many occasions, and they will no doubt do so in the future.

14. *The report has been praised mainly by right-leaning publications and advocacy groups. Does that show it's partisan?*

Reactions often reveal more about the people who are reacting than about what they are reacting to. Drs. Mayer and McHugh keep strictly to the science and draw no political or public policy conclusions. Who likes or dislikes the report, whether they represent what it says accurately, and what they personally may conclude from it have nothing to do with whether its methodology, analysis, and conclusions are sound as a matter of science.

15. *Whatever the report may say, couldn't it be used to harm or discriminate against LGBT people?*

No research on controversial issues could ever be published—or any public debate take place—if the possibility of misuse were taken as a blanket argument against publication. The possibility of misuse is all the more reason to read the report firsthand rather than taking someone else's word for what it says. The executive summary is less than three pages long. The summary, introduction, abstracts, and conclusion combined are less than ten pages.

The editors of *The New Atlantis* believe that, on sensitive matters like those addressed in “Sexuality and Gender,” scientists have a responsibility to present their findings accurately,

taking into account the various complexities in the data and supplying the caveats and nuances that are needed. The authors and editors of this report sought to do so.

Moreover, silence is no less potentially harmful than the misuse of scientific findings. For example, dogmatism can prevent medical practitioners from responding appropriately to the struggles of individual patients, as in the case of a child subjected to irreversible treatments whose gender-atypical thoughts and behavior would not otherwise have lasted.

16. *Doesn't Paul McHugh have a record of anti-LGBT work? Hasn't he been associated with hate groups?*

Dr. McHugh has on many occasions been attacked personally by activists who are unable to discredit his work but see it as a threat to their own agendas. Nevertheless, his record as a scientist, clinician, and leader in the field of psychiatry is unimpeachable, as is demonstrated by his position at the Johns Hopkins University School of Medicine and his membership in the National Academy of Medicine.

The American College of Pediatricians (ACP), a professional organization whose recent statement on gender dysphoria in children Dr. McHugh signed, has been designated a “hate group” by the Southern Poverty Law Center (SPLC). This designation is an extremist expression of SPLC's policy disagreements with ACP, not an impartial assessment of ACP's activities.

17. *Is it true that Lawrence Mayer has been paid \$400 an hour as an expert witness for North Carolina in its “transgender bathroom” lawsuit?*

Yes. Dr. Mayer was hired as an expert witness by lawyers for the State of North Carolina in its ongoing litigation with the federal government. The average rate of the federal government's medical and psychiatric experts in this case is \$500 an hour. These fees are typical, and no more call Dr. Mayer's integrity and impartiality into question than they do the integrity and impartiality of the federal government's witnesses.

18. *Why publish this report now?*

The publication of “Sexuality and Gender” follows three years of close study of the scientific literature and consultation with experts from the biological, psychological, and social sciences. Current events may make the report more or less timely, but its lengthy and thorough preparation was guided by enduring public health concerns and a wish to correctly depict the science.

Given the status of science in our society, political leaders, opinion-makers, medical practitioners, and the general public benefit from rigorous independent analyses of scientific findings. There is often a large gap between the certainty of our beliefs about these matters and what the science shows.