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Cultural Change, Scientific Inquiry, and Gender Development Research: Letting Science Follow the Questions in a Politicized Climate

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Science has long addressed issues important to public health. For example, since antiquity, scientists have sought to understand how diseases spread from person to person. Hippocrates theorized that diseases were spread by breathing the “bad air” emanating from rotting organic matter. For the next two millennia, this concept shaped scientific inquiry, until researchers eventually discovered bacteria and viruses and developed a germ theory of disease. It took many more years before the public accepted that germs – not foul air – caused disease (Matthias, 2021). Regardless of prevailing public opinion, generations of scientists pursued basic and applied research that eventually led to vaccines capable of eradicating many once-deadly diseases.

We are currently facing a different type of public health crisis: one in four transgender and gender-questioning youth attempt to end their lives each year (Suarez et al., 2024). When so many children are at risk – not from disease, but suicide – we again need to turn to scientific research for answers. Just as advances in basic research in microbiology led to improvements in public health, advances in basic developmental science, as demonstrated by DeMayo, Gallagher, Leshin, and Olson’s *Monograph*, “[Stability and Change in Gender Identity and Sexual Orientation Across Childhood and Adolescence](#),” can lead to improvements in the health and safety of all children. In this commentary, I highlight a few notable contributions, and the public health implications, of their work.

One important contribution of deMayo and colleagues’ research is how they situate gender development within the rapidly changing cultural context in which 21st century children develop (in the tradition of Bronfenbrenner, 2005, and Garcia Coll et al., 1996). For the past 50 years (following the second wave of the women’s movement), gender development research has focused on the malleability and flexibility of gender roles and norms, largely examining parental socialization, gender segregation, within-group variability, and the acquisition and influence of gender stereotypes (e.g., see Bem, 1993; Bigler, 1995; Martin et al., 2002; Williams,

Bennett, & Best, 1975). Gender identity was considered a stable and consistent identity (Slaby & Frey, 1975).

But the past decade has ushered in dramatic changes in how gender identity is conceptualized. For example, as highlighted in the *Monograph*, media coverage of diverse gender identities – particularly queer and transgender identities – increased dramatically between 2000 and 2015 (e.g., GLAAD, 2021). At the same time, landmark court cases (e.g., Lawrence and Obergefell) and federal policy changes (e.g., the repeal of “Don’t Ask, Don’t Tell”) between 2003 and 2015 ensured greater legal equality for LGBTQIA+ individuals (e.g., the ability to marry a same-sex individual; protection from workplace discrimination). Further, between 2012 and 2022, the National Institute of Health (NIH) increased their research funding on sexual and gender minority health from \$23.6 to \$83.2 million (Weideman et al., 2025). This rapid rise in public visibility, legal equality, and attention to health disparities coincided with greater social acceptance of LGBTQIA+ identities among youth (e.g., Twenge, 2023).

As deMayo and colleagues captured in their longitudinal research (which itself had to evolve at each time point to keep up with youths’ rapidly changing language around gender), approximately 8% of youths identified as gender diverse (e.g., non-binary) by the end of the study. Even among youth who were recruited as cisgender children, approximately 15% changed their gender identity over the course of the study. As deMayo and colleagues write in the *Monograph*, “these findings tell us that the rates of change we see – and, particularly, the rates of gender diverse identities – ... likely reflect the broader socio-cultural moment.” (p. XX). This is notable for two key reasons. First, it highlights that gender identity is more fluid than previously thought. Although previous research did not examine whether typically-developing children change their gender identities over time, it is unlikely that research conducted 30 years ago would have shown the same findings. Rarely has research been so well-positioned to longitudinally examine gender identity development during a period of rapid cultural transformation. This *Monograph* offers a unique and timely contribution by capturing, in real time, how societal norms that are increasingly accepting of gender diversity (e.g., greater acceptance of a non-binary gender identity) parallel increasingly diverse gender identity trajectories.

Importantly, however, lessons of history have taught that rapid cultural change is often met with political and public backlash (e.g., the classic example of the emergence of the KKK in 1865 following Reconstruction in the Southern US; the spike in hate crimes following the election of Barack Obama). Thus, it is unsurprising that the overall greater acceptance of diverse gender identities among youth and in many sectors of society is accompanied by a political backlash. As noted in the *Monograph*, Republican campaigns spent over \$200 million on anti-transgender advertisements in 2024 (Parks, 2024; PBS, 2024), and by May 2025, 575 anti-LGBTQIA+ bills had been introduced across the country—many aimed at banning the use of chosen names in schools, restricting participation in school sports, and limiting access to healthcare (ACLU, 2025). More than \$800 million in NIH-funded projects focused on sexual and gender minority health were canceled between January and May 2025 (Mueller, 2025). Much of the backlash assumes that greater visibility of diverse gender identities leads to “gender confusion” among children (e.g., <https://donoharmmedicine.org/gender-ideology/>).

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This worry about “gender confusion”, however, does not reflect another important contribution of deMayo and colleagues’ *Monograph*. Their research shows similar gender identity trajectories across all three groups of children (i.e., those recruited as transgender, their siblings, and cisgender same-age peers), with more than 85% of youth showing consistent gender identities over time. The authors note, “stability in gender identity was by far the modal trajectory,” and changes in gender identity were no more or less likely in any of the recruitment groups compared to the others. In other words, socially transitioned transgender youths were no more or less likely to show changes in their gender identity than other children. This suggests that, while there is a normative amount of gender identity variation over time, there is not the widespread “gender confusion” that critics warn about.

Although the political backlash based in fears of widespread “gender confusion” is not supported by empirical evidence, there are some valid critiques about our current state of knowledge about diverse gender identities. As Singal (2025) points out in an essay for the New York Times, there needs to be more research – not less– research that is rigorous, skeptical, and transparent. We still have much to learn about how best to support children as they navigate the normative process of exploring their gender identity. Existing research suggests that affirming environments—such as schools that support Gender and Sexuality Alliances (GSAs), parents that are accepting of their children, multiple contexts that use youths’ preferred names and pronouns — are associated with lower rates of depression among transgender and gender diverse youth (e.g., Russell et al., 2018). However, beyond these protective factors, it remains unclear how to support children in ways that honor normative gender identity exploration without presuming that any change in identity signals regret or “detransition.”

Unfortunately, rather than calling for more research to better understand the lives and needs of trans and gender diverse youth – and to address the public health crisis they are facing – many political opponents have sought to eliminate the research altogether (by eliminating research funding). When research questions are suppressed, science is erased—and with it, the people whose lives depend on being seen and studied. The goal of developmental science is to improve children’s lives and well-being, a goal that cannot be met when scientific agendas are politicized. In contrast, scientific inquiry thrives on complexity, controversy, and unresolved questions. As developmental psychologist Lisa Diamond noted at the 2025 Biennial SRCD Meeting, “Uncertainty is the engine of science.” (Diamond, 2025) Good science has never shied away from controversy; it is through engaging difficult questions that science fulfills its promise. This is exactly what the *Monograph* does.

Just as scientific discoveries on infectious diseases were first met with public disdain, those discoveries eventually led to sanitation procedures that saved lives. Similarly, we should let rigorous developmental research findings determine the best healthcare, parenting strategies, and educational contexts for trans and gender diverse youth, not public or political opinions. At its best, science is iterative—a self-correcting feedback loop of inquiry, analysis, and refinement. That is why we must allow science to do what it does best: follow the questions wherever they lead. That will be one of the enduring legacies of the *Monograph* by DeMayo, Gallagher, Leshin, and Olson. It demonstrates how researchers can conduct empirically

grounded, theoretically rigorous, and socially relevant science that advances our understanding of child development—regardless of the mercurial and reactive moods of political discourse.

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