



Investigating the Relation between Gender Typicality and Pressure to Conform to Gender Norms

Matthew G. Nielson¹ · Kingsley M. Schroeder² · Carol Lynn Martin¹ · Rachel E. Cook¹

Published online: 12 March 2020

© Springer Science+Business Media, LLC, part of Springer Nature 2020

Abstract

Previous research suggested that gender typicality and pressure to conform to gender norms were unrelated; however, this may have been due to how gender typicality was assessed (i.e., by only comparing the self to one's own gender collective). In the present study, we used a dual identity approach (comparing oneself to both gender collectives: to own-gender and other-gender individuals) to create typologies of gender typicality to examine how similarity to own and other gender collectives might differentially associate with pressure to conform to gender norms. The potentially unique influence of pressure sources (parents, peers, or the self) was also analyzed. Participants were 378 U.S. 6th grade students (48% female; $M_{age} = 11.44$ years, range = 10–13). Results indicated that male early adolescents felt more pressure than did female early adolescents and that those who felt more similar to own-gender (and less similar to other-gender) felt significantly higher levels of pressure and that the highest source of pressure was the self rather than peers or parents. We discuss how the present research provides insights into who experiences the highest levels of felt pressure to conform to gender norms and suggests that self-socialization plays a strong role in gender development for many early adolescents.

Keywords Gender identity · Gender typicality · Felt pressure · Peers · Parents · Early adolescence

Egan and Perry (2001) presented a multi-dimensional view of gender identity that has guided many research efforts. Their model described one dimension of identity as involving gender typicality, which in their view was determined exclusively on how similar one felt to one's own-gender collective.

Electronic supplementary material The online version of this article (<https://doi.org/10.1007/s11199-020-01136-y>) contains supplementary material, which is available to authorized users.

✉ Matthew G. Nielson
Matthew.nielson@asu.edu

Kingsley M. Schroeder
kms676@psu.edu

Carol Lynn Martin
cmartin@asu.edu

Rachel E. Cook
recook1@asu.edu

¹ Arizona State University, 3302 North 7th St. #237,
Tempe, AZ 85014, USA

² Pennsylvania State University, State College, PA 16801, USA

Analyses conducted with this unidimensional typicality measure indicated that own-gender typicality was seldom significantly related to felt pressure that individuals experience in which they feel like one has to act/think/feel a stereotypical way because of culturally held notions of what males and females should be like. Of the 22 studies we could locate which utilize some version of the Egan and Perry's (2001) measure of felt pressure, 19 studies indicated no significant correlation between felt pressure and gender typicality (see Table 1s in the online supplement).

The few studies that did report significant relations between pressure and typicality have contrasting results regarding the direction of the relation. Two studies (all samples are from the United States unless noted otherwise; Drury et al. 2013, Colombian sample; Leaper and Brown 2008) showed significant positive correlations, indicating that higher ratings of own-gender typicality was associated with more pressure, and one study showed a negative correlation (Kornienko et al. 2016). It should be noted that the strength of the significant correlations was moderate at best, even with large sample sizes. Additionally, each of these studies had unique factors that may be influencing these results. The study by Drury et al. (2013) included single-sex schools in Colombia; Leaper and Brown's (2008) study

disentangled sources of pressure (peers and parents); and of the many age and gender groups presented in Kornienko et al.'s (2016) study, only 7th grade females showed a significant, negative correlation. Accordingly, felt pressure and gender typicality have generally been understood to be distinct and unrelated components—a more typical individual would be just as likely to feel pressure as a less typical individual.

However, recent developments in the measurement of gender typicality challenge this understanding. In direct opposition to the null findings produced by the unidimensional measure of gender typicality (similarity to *own*-gender group), when similarity to both own- and other-gender have been measured, different patterns emerge (Martin et al. 2017; Pauletti et al. 2017). The measurement of similarity to both genders was introduced and described as the dual identity approach (Martin et al. 2017). In the dual identity approach, Martin et al. (2017) argued that a unidimensional measure with a focus only on one's relation with the own-gender collective did not account for individuals who identify with the other-gender collective, with both gender collectives or with neither. Under the unidimensional model, it was assumed that individuals with low own-gender typicality might experience negative outcomes associated with a lack of belonging or inclusion (Yunger et al. 2004). But what if this same individual has a strong network of support and inclusion among other-gender peers? These negative outcomes would no longer apply. Indeed, feeling similarity to the other-gender (especially when also feeling similar to one's own gender) is associated with positive feelings about children of the other-gender as well as an increased number of other-gender friendships (Martin et al. 2017).

In a study in which typicality was assessed in relation to both gender groups, felt pressure to conform to gender norms was significantly and *positively* correlated with similarity to own-gender and significantly and *negatively* correlated to similarity to other-gender (Pauletti et al. 2017). Previous null associations might be the result of combining into one group individuals who feel highly similar to own-gender (positively correlated with felt pressure) and those who feel similar to both genders (who register low levels of pressure). By measuring typicality in an expanded way, error is reduced and a new pattern of associations emerged. The results of Martin et al.'s (2017) study, as well as with those of Pauletti et al. (2017), provide evidence for the consideration of both similarity to own- and other-gender as an important aspect to include in studying the relation between typicality and felt pressure. For example, the study by Martin and colleagues identified different typicality “typologies” with varying degrees of similarity to own and other gender collectives in their sample and found that these typologies related to different well-being outcomes. Similarly, Pauletti and colleagues indicated that feeling similar to both genders was associated with lower levels of pressure to conform to gender norms. However,

neither study assessed whether different typicality typologies experienced significantly different levels of pressure to conform to gender norms. For these reasons, using the dual identity approach to identify gender typicality typologies and their relation to felt pressure to conform to gender norms are the major goals of the present study.

Another development in the study of gender identity is a newly adopted focus that considers the unique influence on the development of identity that may occur due to different socialization agents or sources. Although gender researchers have long studied different sources of gender socialization (e.g., parents, peers, media), there are few studies that directly compare their differential effect or analyze individuals' subjective feelings about felt pressure from different sources. In Egan and Perry's (2001) original measure, felt pressure to conform to gender norms from multiple sources (self, peers, parents) was included, but they combined these sources to form a generalized measurement of environmental pressure. This practice potentially obscures the unique contributions that different sources may have toward early adolescents' gender development.

In other developmental domains, different sources of perceived socialization pressure have demonstrated differential impacts on adolescents; behaviors like drinking (Ary et al. 1993) and body dissatisfaction (Tylka 2011). Indeed, when sources of pressure to conform to gender norms are differentiated, there are unique outcomes for each source (Leaper et al. 2012). It follows that pressure to conform to gender norm will also differ across parents, peers, and the self. Indeed, a recent paper established that these sources of felt pressure differentially relate to gender typicality (Cook et al. 2019); however, their paper did not explore differences across gender typologies. In summary, the present study will clarify the relation of felt pressure to conform to gender norms with gender typicality by using these two recent advances: the dual identity method of measuring similarity to both own- and other-gender (Martin et al. 2017) and the need to separately assess differing sources of felt pressure to conform to gender norms.

Pressure to Conform to Gender Norms

Research on gender development has historically demonstrated negative outcomes related to gender non-conformity. Many studies indicate that adherence to culturally accepted gender norms of acting, appearing, or thinking positively affects psychological well-being (Carver et al. 2003; Lamke 1982) and deviations from those norms has negative impacts (Chu et al. 2005; Drury et al. 2013, Columbian sample; Roberts et al. 2012). Consistent with this reasoning, parents often steer their sons away from dolls and dresses and direct their daughters away from football or mathematics (Kane 2006). These socialization strategies not only teach children and adolescents about cultural gender norms (Epstein and Ward 2011), but also

are likely interpreted as pressure to conform with these gender norms (Egan and Perry 2001). Despite research evidence and informal socialization practices, adherence to gender roles may not always be beneficial, however. Feminist scholars and masculinity theorists have hypothesized that gender role expectations in patriarchal societies are associated with negative outcomes for a majority of males and females (Connell 2005; Way and Rogers 2017).

Felt pressure to conform to gender norms is associated with greater adjustment difficulties such as lower self-esteem and peer rejection (Carver et al. 2003; Egan and Perry 2001; Skinner et al. 2018; Yungler et al. 2004). However, ambiguity remains as to which types of people are more likely to feel pressure to conform to gender norms. Bem (1981) theorized that more gender-typical individuals would feel higher levels of pressure because they believe that traditional gender norms are important and that strictly conforming to those norms themselves is important. These ideas seem to be validated by research that indicates that males, with their higher levels of own-gender typicality, feel more pressure to conform to gender norms than do females (for a review, see Perry et al. 2019). Indeed, Perry and Pauletti (2011, p. 62) wrote that “boys’ gender identity is stronger than girls.” Compared with females, males view themselves as more similar to same-sex others (i.e., as more gender typical), are more content with their gender, and place more pressure on themselves for gender conformity.” In Western patriarchal cultures, males have more social, relational, and financial power (Walby 1990). Masculine stereotypes are more rigid than feminine stereotypes (Farkas and Leaper 2016; Leaper 1994), and infractions are punished more harshly (Pascoe 2012). Thus, it is unsurprising that males in patriarchal cultures are more gender typical and feel more pressure because they have more to lose.

In contrast to Bem’s (1981) theory, however, pressure to conform to gender norms seems to yield worse outcomes for gender-atypical individuals than for gender-typical individuals. Research indicates that felt pressure amplifies the distress and negative outcomes experienced by gender-atypical individuals (Carver et al. 2003; Egan and Perry 2001; Yungler et al. 2004). The mix of findings concerning who experiences more felt pressure to conform remains unclear. One factor might be the previously unrecognized influence of similarity to *other*-gender collectives as well as how combinations of similarity to each gender collective might relate to differing patterns of felt pressure.

Typologies of Gender Typicality

The dual identity approach allows one to explore not just the direct influences of feeling similar to own- or other-gender peers but also the interaction of these two constructs. For example, two people may each feel highly similar to their own

gender. However, one may feel low similarity to the other gender whereas the second person feels highly similar to the other gender. These two types of people show different interactional and well-being outcomes (Martin et al. 2017; Perry et al. 2019), but unless the interaction of own- and other-gender similarity is considered, these differences will be obfuscated.

To study the combined own- and other-gender similarity combinations, Martin et al. (2017) created a set of four gender typologies using K-means clustering: *Own-Gender Similar* (Own-GS) individuals—with high levels of own-gender similarity and low levels of other-gender similarity; *Both-Gender Similar* (Both-GS) individuals—in whom both types of similarity are relatively high; *Low-Gender Similar* (Low-GS) individuals—in whom both types of similarity are relatively low; and *Cross-Gender Similar* (Cross-GS) individuals—for whom other-gender similarity was higher than own-gender similarity. We will assess whether we are able to replicate these typologies in our own sample and, if we do, we will then examine how differing combinations of own- and other-gender similarity might relate to the pressure that adolescents feel to conform to gender norms.

This dual identity approach has potential to influence the way we understand gender socialization and the pressure to conform to gender norms. Not only are typical individuals registering the presence of felt pressure, they sometimes record higher levels than any other individuals, consistent with Bem’s (1981) ideas. In other words, when individuals feel similar to their own-gender group but dissimilar to the other gender group (i.e., Own-GS), they may feel especially high levels of pressure to conform to gender roles. However, when children embody characteristics of their own- and other-gender groups (i.e., Both-GS), they may feel less pressure to conform to traditional gender roles, relying instead on their own flexibility in gendered behaviors and traits, akin to the idea of androgyny (Martin et al. 2017; Pauletti et al. 2017). Children who do not feel similar to either gender (Low-GS) or who feel similar to the other gender (Cross-GS) may also report lower levels of felt pressure than Own-GS. These children, who appear to place less emphasis on gender as a part of their identity, may hold a personal gender ideology that is counter to traditional gender roles, thereby buffering them from feeling pressure to conform (Rogers 2018). More research is needed to test these ideas and compare how individuals with certain levels of similarity to own- and other-gender might experience more or less pressure than individuals with different combinations of own- and other-gender similarity.

Sources of Felt Pressure to Conform to Gender Norms

Another important factor that likely contributes to the relation between typicality and pressure is the potentially unique

impact of different sources of pressure to conform to gender norms. In other domains, when sources of socialization are kept distinct (as opposed to aggregated), they predict unique behavioral outcomes. Research on social influence indicates that pressure from different sources varies in both methods (e.g., explicit or indirect socialization) and motivation for socialization (Biddle et al. 2006). Of the three published articles that differentiated between sources of pressure to conform to gender norms, two indicated unique gender development outcomes (Cook et al. 2019; Leaper et al. 2012) and one did not (Aoyagi et al. 2018). Aoyagi et al. (2018) did not find any significant outcomes for pressure to conform to gender norms from either family or peers. However, Cook et al. (2019) indicated that parents, peers, and individuals themselves produced unique types of pressure that differentially predicted gender typicality across time. Leaper et al. (2012) showed how felt pressure from parents (but not peers) negatively impacted math/science motivation and how English motivation was positively impacted by pressure from parents and negatively impacted by pressure from peers.

Parents are one of the earliest and strongest socializers of children (Lytton and Romney 1991, meta-analysis), and parental messages about traditional gender norms show important links with children's later gendered behaviors, including a direct association with greater traditionality during adolescence (Epstein and Ward 2011). Parents influence adolescents through processes of direct, explicit instruction or by modeling (Goodnow 1997), and a chief motive driving parental socialization is their child's conformity to gender norms so as to fit in and avoid being teased by their peers (Kane 2006).

The influence of peers increases sharply during the transition to adolescence (Brechwald and Prinstein 2011), and many adolescents' interactions are grounded in policing gender typicality (Pascoe 2012). Peers' socialization methods include positive reinforcement, such as social preference, or punishment via rejection, teasing, and ostracism (Brechwald and Prinstein 2011). Adolescents are strongly motivated to fit in with their peers and to have their peer group fit in with broader school and social norms. These motivations often manifest as a low tolerance of non-conforming behavior from themselves or their peers (Pascoe 2012). Non-conforming adolescents are singled out for harassment (Martin-Storey and August 2016). Given this pattern, it is logical to expect that less typical adolescents might experience more pressure from their peers than they do from other sources.

Importantly, there may be a disconnect between the socialization one experiences and the pressure that one actually perceives. In this way, individuals themselves become an important "source" of socialization. Self-socialization is an active process in which children seek out information about gender roles and internalize those messages (Martin and Halverson 1981; Martin and Ruble 2004). External sources of socialization play an important part in self-socialization

because these are where the individual looks for clues (Liben 2017); however, self-socialization highlights the agency of the individual in the situations in which they choose to participate and how they interpret the stimuli they experience (Martin and Halverson 1981; Bigler and Liben 2006). Therefore, if an individual is choosing to participate in a gendered system (i.e., a highly gender-typical individual), they likely feel more pressure than individuals who are less invested in that system. This explanation would account for the high levels of pressure experienced by Bem's (1981) highly gender-schematic individuals.

Current Study

The overall aim of the present research is to determine the relationship of gender typicality and felt pressure to conform to gender norms. Who feels pressure and from where is the pressure coming? To address these questions, we attempted to replicate the typologies identified by Martin et al. (2017). Hypothesis 1 focused on the role of gender: We expected that male early adolescents would feel more pressure than female early adolescents across all sources, given prior studies showing that male adolescents feel more pressure in general (Blakemore et al. 2009). Hypothesis 2 focused on the dual identity typologies: We expected that Own-GS adolescents would have the highest levels of pressure compared to all other gender typologies. The next hypotheses (Hypothesis 3a) focused on specific interactions between typicality typologies and source of pressure, such that pressure from self would be highest for Own-GS identified adolescents. Own-GS adolescents, who in general feel more pressure to conform than other adolescents, may also strongly internalize cultural gender norms (Pauletti et al. 2017) and consequently actively police their own behavior (Way et al. 2014). Hypothesis 3b was that adolescents low on similarity to own-gender (Cross-GS and Low-GS) would feel more pressure from peers than Both-GS adolescents, given that feelings of not belonging to one's own gender group likely evoke gender policing from peers (Martin-Storey and August 2016). But Both-GS adolescents have a sense of similarity to one's own gender group and so should not feel the same pressure.

Finally, we conducted a comparative analysis to assess how the gender similarity variables differentiated by own and other similarity would relate to the original measure of gender typicality created by Egan and Perry (2001). Much of our literature review is founded on research conducted on the original gender typicality measure; understanding how the new measures of gender similarity and pressure relate to the original measure of typicality may aid in understanding why the dual identity approach to typicality measures might show different relations to felt pressures to conform to gender norms.

Method

Participants

Participants were 481 U.S. 6th grade students, ranging in age from 10 to 13 years-old (213 females (48%); $M_{age} = 11.44$ years, $SD = .56$). Students' reported ethnicities were 41% ($n = 172$) White, 16% ($n = 56$) Latinx, 6% ($n = 20$) Asian, 4% ($n = 15$) Native American, 4% ($n = 13$) Black, and < 1% ($n = 1$) Pacific Islander. Additionally, several participants indicated bi- and multiracial ethnic identities including Latinx/White ($n = 2$), Black/White ($n = 2$), Native American/White ($n = 2$), Multi-ethnic ($n = 16$). Overall, the sample was middle-class: 150 (83%) of mothers and 24 (74%) of fathers reported having at least some college education. Fourteen (> 3%) parents indicated a family income of \$25,000 or less, 82 (39%) parents indicated \$26,000–75,000, 51 (24%) parents indicated the median income between \$76,000–100,000, (30%) parents indicated \$101–150,000, and 21 (10%) indicated above \$150,000.

Procedures and Measures

Data for the present study were drawn from a larger study investigating the correlates of early adolescents' socio-emotional adjustment. Participants came from 28 classrooms in four elementary schools in the southwest United States. All adolescents in the 6th grade at these schools were invited to participate. Information was sent to the parents of every adolescent in the school, and adolescents were included in the study if they provided assent and if their parents did not opt out, yielding a participation rate of 96%. Prior to data collection, the study and methods were approved by the University Institutional Review Board and by the school district. Data were collected during one occasion from the different schools during either the spring or fall semesters of 2013 or the spring semester 2014 (participants did not participate in more than one session). The research team visited classrooms and administered a paper survey to all assenting students. Surveys included measures assessing students' peer relationships and their gender-related attitudes and beliefs. Students completed surveys on their own but were monitored by research assistants who helped as needed. It took approximately 45 min for students to complete the packets. They were given a small gift for participating.

Demographic Information

Adolescents reported on their gender (0 = girl, 1 = boy), ethnicity (White, Hispanic/Latinx, African American, Asian American, Native American, and other/mixed), and age (in years).

Gender Similarity

Participants responded to questions asking about their perceived similarity to their own and the other gender group (Martin et al. 2017). This is a five-item scale including sample items for own-gender collective (for female participants): "How similar do you feel to girls?" and "How much do you like to do the same things as girls?" Sample items for the other-gender collective comparison included (for female participants): "How similar do you feel to boys?" and "How much do you like to do the same things as boys?" Responses were recorded on a Likert-type scale from 0 (*not at all*) to 4 (*a lot*). All participants responded to the five items twice, once asking about similarity to female adolescents and once about similarity to male adolescents. Responses were then recoded into own- and other-gender similarity scores in which higher scores indicated greater gender similarity. Cronbach's alpha for own-gender similarity was .83; for other-gender similarity, .76. These scores were used to calculate gender typicality typologies (see the Results section).

Own-Gender Typicality

Participants responded to six items pertaining to their perceived gender typicality as compared to others of their gender collective (Egan and Perry 2001). Egan and Perry's (2001) typicality measure was slightly modified from the original (e.g., original: "Some girls don't feel they're just like all the other girls their age BUT other girls do feel they're just like all the other girls their age." Modified: "Some girls feel like they're just like other girls their age, but other girls don't feel they're just like all other girls their age." Items were worded to capture feelings of typicality and atypicality with responses including 0 = *very true* (feeling very typical), 1 = *sort of true* (feeling sort of typical), 2 = *sort of true* (feeling a little atypical), and 3 = *very true* (feeling very atypical). Responses were recoded such that higher scores indicated more perceived typicality to own-gender peers. Cronbach's alpha was .81.

Perceived Pressure to Conform to Gender Norms

Participants rated (0 = *not at all* to 4 = *a lot*) 12 items pertaining to perceived pressure to conform to gender norms. The items were adapted from Egan and Perry's (2001) measure of felt pressure to match the domains of gender typing assessed by the measure of gender typicality (Kornienko et al. 2016). There were three subscales, with four items each, representing felt pressure from self (i.e., for male participants: "I would be upset if I saw myself acting like a girl"; $\alpha = .80$), from parents (i.e., for female participants: "My parents would be upset if I liked boys' toys and activities"; $\alpha = .79$), and from peers (i.e., for male participants: "Other kids would be upset if

I acted like a girl”; $\alpha = .79$). Higher scores indicated more felt pressure to not be like the other gender.

Analysis Plan First, a series of descriptive analyses including means, standard deviations, and correlations were conducted in SPSS on the dual identity measures of gender typicality and felt pressure delineated by sources. Second, we followed the methodology of Martin et al. (2017) to identify gender typicality typologies in our sample. Third, controlling for classroom membership, we tested the hypotheses to determine whether mean levels of felt pressure differed across the source of pressure or across gender identity typologies of adolescents. These comparisons were tested by conducting a $2 \times 4 \times 3$ repeated measures ANOVA with gender of participant (gender: male, female) \times gender identity typology (Own-GS, Both-GS, Low-GS, Cross-GS) to compare levels of felt pressure source (peer, parent, self; within-subjects) across adolescents and across sources. Significant interactions will be probed with one-way ANOVAs separated by typology, gender, or source. Effect sizes for ANOVA tests will be listed as partial eta square values (η_p^2), and effect sizes for pairwise comparisons will be listed as Hedges g . Both η_p^2 and g are scored from 0 to 1 with larger scores indicating larger effects.

Results

Means and standard deviations for all variable studies are available in Table 1. The purpose of our study was to determine how felt pressure to conform to gender norms related to gender typicality when assessing similarity to both own- and other-gender. To address this aim, gender typicality typologies

were created and ANCOVAs were conducted, as outlined in the following.

Identification of Typicality Typologies

Gender identity typologies were developed following the methodology of Martin et al. (2017). Similarity scores were standardized and then were included in a nonhierarchical K-means cluster analysis (MacQueen 1967). Two-, three-, four-, and five-cluster solutions were calculated and compared. The optimal number of clusters was determined by evaluating interpretability, amount of variance explained for measures being clustered, amount of variance explained in the joint distribution of the measures, and the extent to which successive cluster solutions reduced within-cluster variability. A four-cluster solution was found optimal and reliable after comparing randomly selected 50% and 75% samples from the data to the results with the full sample (Jain and Dubes 1988) and was replicated with clusters found using hierarchical agglomerative clustering (Ward’s method). Producing similar results with subsets of the sample with other clustering techniques establishes the reliability of cluster solutions (Aldenderfer and Blashfield 1988).

The analyses produced four gender identity typologies that replicated the ones found in Martin et al. (2017): Own-GS (238, 49%; 75, 32% females) in which own-gender similarity was much higher than other-gender similarity; Both-GS (122, 25%; 78, 64% females) in which both types of similarity were relatively high; Low-GS (93, 19%; 60, 65% females) in which participants showed relatively low similarity to both genders; and Cross-GS (32, 7%; 24, 75% females) in which other-gender similarity was higher than

Table 1 Descriptive statistics and correlations among study variables

Variables	Own-GS (<i>n</i> = 229)	Both-GS (<i>n</i> = 121)	Low-GS (<i>n</i> = 90)	Cross-GS (<i>n</i> = 31)	Total (<i>n</i> = 481)	Correlations						
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	1.	2.	3.	4.	5.	6.	7.
1. Similar Own	3.53 (.38)	3.33 (.46)	1.94 (.59)	1.18 (.68)	3.01 (.92)	–						
2. Similar Other	.52 (.30)	1.60 (.49)	.94 (.87)	2.66 (.61)	1.00 (.75)	–.35*	–					
3. Typicality	2.29 (.55)	2.11 (.60)	1.56 (.71)	1.52 (.78)	2.05 (.69)	.29*	–.46*	–				
4. Self Pressure	2.68 (.95)	1.82 (.97)	1.52 (.78)	1.88 (1.06)	2.05 (.69)	.19*	–.27*	.70*	–			
5. Peer Pressure	2.14 (1.09)	1.72 (.89)	1.64 (.89)	1.27 (.95)	1.91 (1.04)	.073	–.23*	.64*	.71*	–		
6. Parent Pressure	1.99 (1.20)	1.58 (1.05)	1.73 (.97)	1.33 (1.05)	1.82 (1.12)	.21*	–.36*	.88*	.90*	.88*	–	
7. Pressure (All Sources)	2.28 (.96)	1.70 (.82)	1.75 (.87)	1.32 (.96)	1.99 (.97)	.53*	–.20*	.29*	.19*	.05	.19*	–

Own-GS = Own-Gender Similar; Both-GS = Similar to own and other gender; Low-GS = not highly similar to either gender; Cross-GS = More similar to other- than own-gender. Similar Own = Perceived similarity to their own gender group; Similar Other = Perceived similarity to the other gender group. Similarity measures scaled 0 to 5. Typicality = Egan and Perry’s (2001) original gender typicality measure; scaled 0 to 3. Self pressure = felt pressure from the self to conform to gender norms; Peer pressure = felt pressure from peers to conform to gender norms; Parent pressure = felt pressure from parents to conform to gender norms; Felt pressure measures each scaled from 0 to 4

* $p < .05$

own-gender similarity. The percentages of adolescents who fell into each typology were similar to those found by Martin et al. (2017) with their sample of 5–10-year-olds: Own-GS 48%; Both-GS 30%; Low-GS 17%; Cross-GS 6%. The slight differences may be due to age differences between the two samples.

To validate and pinpoint the distinction among groups, we conducted a repeated measure MANOVA comparing the identity typologies on the continuous measures of similarity to own- and other-gender peers. The main effects of similarity, $F(1, 481) = 864.43, p < .001, \eta_p^2 = .64$, and identity typology, $F(3, 481) = 179.20, p < .001, \eta_p^2 = .53$, were significant as was the significant two-way interaction, $F(3, 481) = 634.34, p < .001, \eta_p^2 = .80$. Simple effects analyses showed that each typology differed significantly from each other typology on own-gender similarity, $F(3, 481) = 436.06, p < .001, \eta_p^2 = .74$, and on other-gender similarity, $F(3, 481) = 352.51, p < .001, \eta_p^2 = .70$, with very large effect sizes. Comparisons of own-gender and other-gender similarity within each typology using paired samples *t*-tests with output split by typology showed that differences were significant ($ps < .001$) and effect sizes were very large: Own-GS ($d = 6.35$), Both-GS ($d = 2.53$), Low-GS ($d = 1.39$), and Cross-GS ($d = 1.54$). Cross-GS adolescents identified more strongly with the other gender; all others more strongly identified with their own gender. The findings confirm the appropriateness on the current sample of typology distinctions and the labels given to each.

Gender Differences in Felt Pressure

To test our hypotheses regarding whether mean levels of felt pressure differed across gender, source of pressure, or gender identity typologies, we conducted a $2 \times 4 \times 3$ repeated measures ANCOVA with gender of participant (gender: male, female) \times gender identity typology (Own-GS, Both-GS, Low-GS, Cross-GS) to compare levels of

felt pressure source (peer, parent, self; within-subjects) across adolescents and across sources (see Table 2). First, we controlled for the effect of classroom membership, and pressure did not vary as a function of classroom membership $F(1, 470) = .82, p = .366, \eta_p^2 = .01$. Next, we expected that male adolescents would feel greater pressure to conform than female adolescents (Hypothesis 1). This hypothesis was supported: The main effect of gender was significant, $F(1, 470) = 65.89, p < .001, \eta_p^2 = .06$, such that young men reported higher levels of felt pressure than did young women.

The gender by source interaction was also significant, $F(1, 470) = 15.93, p < .001, \eta_p^2 = .03$. To probe interactions across gender within sources, we conducted one-way ANOVAs for male and female adolescents on each source of pressure. Male participants reported significantly higher felt pressure than did female participants from all sources, but the size of this difference varied across source. Male participants' mean ($M = 2.71, SD = .89$) was significantly higher than female participants' ($M = 1.72, SD = 1.08$) by the biggest margin on felt pressure from self ($M_{diff} = .99, p < .001, g = .026$), followed by felt pressure from peers ($M_{male} = 2.26, SD = 1.02; M_{female} = 1.50, SD = .90; M_{diff} = .76, p < .001, g = .03$), and lowest on felt pressure from parents ($M_{male} = 2.07, SD = 1.17; M_{female} = 1.51, SD = 1.00; M_{diff} = .56, p < .001, g = .012$).

To probe the gender by source interaction *within* gender *across* sources, we split the sample by gender and conducted one-way repeated measures ANOVAs across sources. We found that (a) female participants reported significantly higher felt pressure only from self ($M = 1.72, SD = 1.08$) than from peers ($M = 1.52, SD = 1.00; p < .001, g = .01$) whereas (b) male participants reported significantly stronger felt pressure from self ($M = 2.73, SD = .88$) than from both peers ($M = 2.29, SD = 1.03; p < .001, g = .03$) and parents ($M = 2.10, SD = 1.17; p < .001, g = .04$) and pressure from peers was significantly higher than pressure from parents ($p = .043, g = .01$).

Table 2 Results of a 2 (gender) \times 4 (typology) \times 3 (pressure source—Within subjects) repeated measure ANCOVA

Predictor	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>	η_p^2
(Intercept)	372.08	1	372.08	164.79	<.001	.26
Classroom	1.85	1	1.85	.82	.37	.002
Gender	65.89	1	65.89	29.18	<.001	.058
Pressure Source	8.42	1	8.42	20.32	<.001	.041
Gender Identity Typology	50.38	3	16.79	7.44	<.001	.045
Gender \times Source	6.60	1	6.60	15.93	<.001	.033
Gender \times Typology	1.66	3	.55	.25	.864	.002
Source \times Typology	2.88	3	.96	3.16	.025	.045
Gender \times Source \times Typology	.19	3	.06	.21	.890	.01
Error (Within-Subjects)	143.20	470	.31			
Error (Between-Subjects)	1061.22	470	2.26			

Gender Typology Differences in Felt Pressure

We expected that Own-GS adolescents would report higher felt pressure than all other gender typologies (Hypothesis 2). This hypothesis was supported: The main effect of gender typologies was significant, $F(3, 470) = 50.38, p < .001, \eta_p^2 = .05$. Follow-up pairwise comparisons revealed that Own-GS ($M = 2.28, SD = .96$) had significantly higher felt pressure than Both-GS ($M = 1.70, SD = .82; p < .001, g = .01$), Low-GS ($M = 1.75, SD = .87; p < .001, g = .01$), and Cross-GS ($M = 1.32, SD = .96, p < .001, g = .03$) adolescents. No other significant differences in felt pressure among gender typologies were present.

Differences in Felt Pressure by Source and Gender Typology

We expected that Own-GS adolescents would feel more pressure from self than from parents or peers (Hypothesis 3a) and that Cross-GS adolescents and Low-GS adolescents would feel more pressure from peers than Both-GS adolescents (Hypothesis 3b). We examined the interaction between pressure source and gender identity typology. Consistent with expectations, this interaction was significant, $F(3, 470) = 3.16, p = .025, \eta_p^2 = .045$, indicating that differences in levels of felt pressure varied across both source and gender typology. We utilized two different methods to follow up on this significant interaction. To probe the interaction within typology across source of pressure (e.g., Own-GS self versus Own-GS parent) as a test of Hypothesis 3a, we separated the sample by typology and conducted a repeated measures ANOVA to compare pressure levels from parents, peers, or self. To probe the interaction within source of pressure and across typologies (e.g., peer Low-GS versus peer Both-GS) as a test of Hypothesis 3b, we conducted a separate one-way ANOVA for each source of pressure comparing across different typologies.

Hypothesis 3a

This hypothesis was supported: Own-GS adolescents differed on their levels of felt pressure across sources, $F(1, 234) = 20.47, p < .001, \eta_p^2 = .08$. The pairwise comparisons indicated that Own-GS adolescents reported higher felt pressure from self ($M = 2.68, SD = .95$) than from peers ($M = 2.14, SD = 1.09; p < .001, g = .02$) and from parents ($M = 1.99, SD = 1.20; p < .001, g = .03$).

Hypothesis 3b

This hypothesis was not supported. Although the peer ANOVA indicated a significant effect by typology, $F(3, 479) = 12.19, p < .001, \eta_p^2 = .07$, the pairwise comparison between cross ($M = 1.27, SD = .95$) and both ($M = 1.72,$

$SD = .89$) was not significant ($p = .117, g = .02$) nor was the pairwise comparison between low ($M = 1.64, SD = .89$) and both ($p = .947, g = .004$).

Comparative Analysis

We included Egan and Perry's (2001) original measure of gender typicality in our study to determine how it related to felt pressure from each source as well as how it related to individuals' scores on another measure of typicality—specifically, own- and other-gender similarity. The original measure of typicality was moderately and positively correlated with felt pressure from each source in our sample except parents (self: $r = .29, p < .001$; peer: $r = .19, p < .001$; parent: $r = .05, p = .318$; Combined Sources: $r = .19, p < .001$). This pattern differs from most other samples in which it is not significantly related to pressure to conform to gender norms. The original measure of typicality was strongly and positively related to similarity to own-gender similarity ($r = .53, p < .001$) and negatively related to similarity to other gender ($r = -.20, p < .001$). This pattern suggests that the similarity measure effectively separates the feelings of typicality to own-gender and other-gender peers and that the original measure more strongly relates to own-gender typicality but also likely includes individuals with feelings of similarity to the other gender.

Discussion

The dual purposes of our study were (a) to explore the relation of felt pressure and gender typicality to test whether typologies of own- or other-gender similarity evoked differing levels of felt pressure and (b) to determine whether these relations change depending on the source of felt pressure to conform to gender norms. Importantly, measuring similarity to the other-gender collective, along with similarity to the own-gender collective, changes what we know about the pressure that individuals feel to conform to gender norms. Contrary to previous mixed expectations about the relation of pressure to gender typicality, the present findings suggest that it is perceived similarity to one's own-gender when also not feeling similarity to the other-gender that relates to pressure to conform to norms. We replicated findings that male early adolescents felt more pressure than did female early adolescents and found that those who felt more similar to their own-gender (and less similar to other-gender) did indeed report significantly higher levels of pressure. Additionally, when analyzing the influence of different sources of pressure, we found that most individuals felt more pressure from self than they did from peers or parents. The following discussion will elaborate on these key findings and then discuss how this research changes our understanding of felt pressure to conform to gender norms.

Male Adolescents Feel More Pressure

In line with previous studies that show higher rates of pressure for male adolescents (for a review, see Blakemore et al. 2009), we found that male early adolescents reported significantly higher felt pressure than female early adolescents on all sources, but the size of this difference varied across source. Male adolescents' means were higher than females' by the biggest margin on felt pressure from self, second on felt pressure from peers, and lowest on felt pressure from parents.

Regarding peer interactions, Jewell and Brown (2014) found that being highly typical was always good for male adolescents and being atypical was always negative. Our results indicate that the more rigid same-gender socialization trends that occur throughout elementary school (Blakemore et al. 2009) may carry on to adolescence and foster a stronger sense of membership in male peer groups than is seen in female groups. Perhaps these strong group expectations create a rather unforgiving environment for male adolescents—both for male early adolescents who feel typical to stay that way and for male early adolescents who do not feel like they fit in to the group to change.

Female adolescents also experience gendered pressure from peers that differs from other sources. Jewell and Brown (2014) found that highly gender-typical female adolescents were more popular and accepted by their peers, but they were perceived as having more anxiety and a negative body image. Another study described how athletic female adolescents may be viewed as nonconforming, but they experienced little gender policing and were still popular (although they were not perceived as very prosocial) (Pauletti et al. 2014). Indeed, it is far more acceptable among peers to be a tomboy than a sissy (Yu et al. 2017). However, Egan and Perry (2001) found that felt pressure caused more problems for girls than for boys. In their study of elementary and middle school female adolescents, higher felt pressure lead to lower self-worth and self-competency but these patterns were not found for male adolescents. More research is needed that continues to illuminate the different patterns and trajectories of gender conformity pressure and typicality during the transition to adolescence and on toward adulthood.

Research has indicated some differences in the way parents socialize and pressure their boys and their girls. For example, fathers put more pressure on their sons to be masculine than on their daughters to be feminine (Maccoby 1998), and mothers talk to daughters more in general and focus more on emotional themes and interpersonal relationships (Leaper et al. 1998). We know little about how these socialization experiences translate into pressures for adolescents or whether experiences with one parent matter more to felt parental pressures. In our study we did not differentiate between pressure from mothers or fathers, and this distinction could be an important direction for future research.

Highest Felt Pressure for Own-Gender Typical Adolescents

Our second question concerned which type of early adolescent feels the most pressure to conform to gender norms. We expected support for Bem's (1981) idea that the most gender-schematic individuals will feel the most pressure. That is, we expected and found that Own-GS adolescents (more own-gender similar, less other-gender similar) felt significantly higher levels of pressure than adolescents with less own-gender similarity or higher other-gender similarity. This pattern is different from previous findings that use Egan and Perry's (2001) original typicality measure (i.e., a null relation between pressure and typicality), but is consistent with one study that differentiates between own- and other-gender similarity (Pauletti et al. 2017).

Similar to Martin et al. (2017), the largest proportion of adolescents in our sample identified as Own-GS (49%), then Both-GS (25%), then Low-GS (19%), and the lowest number of adolescents identified as Cross-GS (7%). These numbers indicate that being gender typical remains the norm (Al-Attar et al. 2017, Egyptian and Belgian sample; Becker et al. 2017, German sample; Yu et al. 2017, multinational sample). Although messages of diversity are increasingly salient in Western culture (Morris 2018, United Kingdom sample; Yu et al. 2017), and although some researchers claim gender-atypical behaviors are completely acceptable (Adams 2011; Anderson 2009), atypical gender behavior is generally still received poorly.

Key to our study, we found that Own-GS adolescents felt significantly higher levels of pressure than adolescent with other typicality typologies. Why would the most gender-typical individuals feel the most pressure to conform to norms? Bem (1981) theorized that individuals who are the most typical are also the most invested in the gendered system. Recent mixed-methods work by Rogers (2018) shows that adolescents with stronger gender identities tend to emphasize between-gender differences when asked open-ended questions about gender ideologies, suggesting a greater investment in binary gender categories and roles. Those with more investment in the system (i.e., who emphasize those gender differences) may then feel more pressure and gain more rewards by conforming to those norms compared to those who do not. Given evidence that gender is a highly salient aspect of their identities, they might also be strongly gender schematic—that is, they use gender as a lens with which to interpret much phenomena in the world (Bem 1981, 1993). Consistent with this idea is the finding from our study that male adolescents feel more pressured than female adolescents. Perhaps boys and men are more gender-schematic than girls and women in general. Boys and men, who particularly benefit from imbalanced and increased power in the gender binary system, may show even more pressure to conform and gain more

rewards by maintaining this system than would girls and women. Further research exploring these ideas is warranted.

Felt Pressure from Self Is the Strongest Pressure

Our third hypothesis, that pressure from self would be highest for Own-GS identified adolescents, was supported: Own-GS early adolescents reported experiencing felt pressure from self most strongly, from peers somewhat strongly, and from parents least strongly. An important facet of the development of gender schema is the internalization of social gender norms. Internalization is the process by which an individual adopts societal values as their own personal ideals (Vandenbosch and Eggermont 2013). In other words, once an individual has internalized societal norms, they become their own enforcers for gender behavior. In a socially constructed view of gender, an individual would not naturally know that girls should not be assertive or that boys should not like pink; individuals learn these proscriptions through interacting with the world around them. Initially they might need the rewards or punishments of others to remind them of the gendered expectations of their behavior, but through the process of internalization, they would learn the gender rules so well that they need no more reminders. Instead, they become their own gender police. They begin to ascribe more importance and positivity to their own gender group (Martin and Halverson 1981), and they seek out and remember information about their own over the other gender (Martin and Halverson 1983). They come to value those rules associated with their own gender (Thomas and Blakemore 2013) and adopt them as their own as well as to devalue cross-gendered activities and those who break gender rules (Roberts et al. 2012).

Another mechanism at play to explain why typical individuals might feel more pressure from self is described in the sex role strain paradigm (Pleck 1983). The foundational argument in this theory of masculinity is that individuals will experience negative internalizing and externalizing outcomes if they feel like they do not measure up to their internalized standards. For example, imagine a boy who thinks that boys should play on the football team, yet he is too scared to tryout or worried that he would just get cut from the team. The same scenario might play out for an overweight female who subscribes to the feminine ideology that females should be very thin. In these cases, cultural ideals have become so thoroughly internalized that individuals themselves are the most disappointed when they are unable to live up to them.

Our fourth hypothesis, which predicted that less typical individuals (Low-GS and Cross-GS) would feel more pressure from peers and parents, was generally not supported. We expected that individuals who felt atypical would likely be somewhat non-conforming, that non-conformity would draw the gender-policing attention of peers, and that atypical individuals would consequently feel pressure from peers to

conform to norms. However, adolescents of all typologies (except Cross-GS) felt higher levels of pressure from self than from other sources. As we described previously, Own-GS individuals felt more pressure from the self than from other sources. Both-GS adolescents reported higher felt pressure from self than from parents, Low-GS persons reported higher felt pressure from self than parents and peers, and Cross-GS students showed no significant differences. These findings suggest that internalizing gender norms is more common than not and that this occurs for people in a variety of gender identity configurations.

Reframing Felt Pressure

For the past two decades, research suggested that felt pressure to conform to gender norms was not related to whether one felt more or less typical: everyone was equally likely to feel pressure whether they already felt typical or not. However, our research adds to that of Pauletti et al. (2017) by challenging this view. Although we find that felt pressure is a force that a majority of adolescents feel, our results point to this pressure being especially pertinent to individuals who already consider themselves to be typical. More typical adolescents, who potentially have more rigid internalizations of cultural gender roles, are the most likely to feel this pressure.

That gender-typical people feel pressure to conform to gender norms is not a new idea. Bem (1981) proposed these ideas in her Gender Schema theory, and masculinity theorists propose that the majority of Western men feel they do not live up to masculine ideals and feel pressure to portray a certain kind of masculinity (Pleck 1983). In her high school ethnography, Pascoe (2012) illustrates how even seemingly targeted messages to non-conforming individuals may in fact intend to serve a broader purpose. Specifically, Pascoe found that “fag discourse” is not actually targeting suspected lesbian and gay individuals; rather, it is an explicit gender-policing tactic used to keep the behavior of male and female peers within the confines of traditional gender norms. Traditional gender norms are limiting both by the methods with which they are enforced (i.e., felt pressure via gender policing and teasing) and for the restrictions they put on men who express emotions and for women to demonstrate analysis/logic (Way and Rogers 2017).

Feminist scholars and masculinity theorists both posit that there are negative outcomes for *everyone* in a hegemonic patriarchal system (Connell 2005). For example, even as men enjoy the privileges of patriarchy, they are constrained to abide by rules of emotional restriction and homophobia (Pleck 1983). The disadvantages to women in this system are too numerous to count, but include rape-culture, slut- and body-shaming (Stone et al. 2015), and limited professional fields and compensation (Fiske et al. 2002).

Limitations and Future Directions

Whereas the present study had advantages in a large and diverse sample, nonetheless, our sample was particular to the area in which it was gathered, thus our analyses may have limited generalizability. Additionally, when we attempted to replicate the null correlation between felt pressure and Egan and Perry's (2001) original measure of gender typicality, we found a small but significant positive correlation. We are not sure why this is the case, but potential factors might include slight wording differences between the measures of gender typicality used in our study and in Egan and Perry's (2001) study. Additionally, our data were gathered 15 years after the publication of Egan and Perry's study; much has changed regarding the visibility and acceptance of gender diversity since then (Becker et al. 2017; Morris 2018; Yu et al. 2017).

Working with the typologies of gender similarity is a strength but also has the drawback that, in a typical population, only a small number of individuals report feeling and being cross-gender. Our sample followed this pattern, which likely limited findings for this group. The lack of significant differences between this typology and the others might be due to error associated with sample size as opposed to an actual lack of differences. These analyses should be explored on even larger samples that would include more cross-gender-identified individuals.

The most important future direction is to test the longitudinal relation between pressure to conform to gender norms and gender typicality. The present research is not longitudinal; thus, we are unable to test whether the highly typical individuals in our sample who feel high pressure have always been highly typical or whether they became more typical over time as a result of the pressure they felt. Does pressure lead to more typicality, does typicality lead to more pressure, or is it a combination of both factors? This question has been explored in one recent paper showing limited support for a bi-directional relation between typicality and felt pressure (Cook et al. 2019); however, more research is needed on this topic before solid conclusions can be drawn. When cultural gender norms are internalized, individuals no longer need external sources to monitor their adherence to gender norms—they do it on their own. Thus, individuals themselves can become another source of pressure to conform to gender norms. More research is needed to determine the potentially unique impact of these different socialization sources (e.g., parents, peers, or self).

Felt pressure has also been described as an “immature” stage that is resolved as an individual grows more typical over time (Carver et al. 2003; Yunger et al. 2004). We agree that feeling high levels of pressure would likely motivate change; it seems unlikely that someone would be able to sustain high levels of pressure over time without attempting to lessen it. However, we do not believe that it is necessarily only resolved

by becoming more typical. Indeed, someone who feels high levels of pressure may be just as likely to reduce that pressure by distancing themselves from cultural gender norms. This strategy might look like rejecting mainstream cultural norms in favor of more flexible norms found in subcultures like LGBT-friendly peer groups or by rejecting the gender binary completely. It might also look like removing oneself from direct influence of peers who care about norm conformity and instead finding peers who do not police other's behaviors. We encourage longitudinal work that analyzes reactions to pressure to conform to norms over time.

Practice Implications

When research correctly identifies the behaviors targeted in gender-based harassment, the effectiveness of intervention is likely increased. For example, research increasingly indicates that atypical gender behavior evokes more gender-based harassment than sexual minority status (Jewell and Brown 2014; Martin-Storey and August 2016). Thus, interventions aimed at increasing acceptance of gender diversity will likely improve the lives of sexual and gender minorities more effectively than interventions aimed at increasing acceptance of sexual minorities. Much attention has rightly focused on the discrimination and challenges experienced by gender non-conforming individuals; less attention has been paid to the group that may be experiencing the most pressure to conform but who show less obvious signs of distress. It is likely that these highly conforming adolescents would have much to benefit from interventions aimed at reducing gender conformity pressures. Identifying interventions that might effectively reduce reliance on gender norms as a standard for behavior is a ripe area for future researchers and activists.

Conclusion

The current study was designed to answer questions about the relation between gender typicality and felt pressure. By using a dual-identity approach to study gender typicality and by analyzing the unique role of multiple and distinguishable sources of pressure, we have provided an expanded view of gender identity and allowed for a more in-depth picture of the association between these two constructs. The relation between gender typicality and felt pressure seems to vary not only by one's gender identity typology, but also by the source of gender-related pressure. More broadly, a majority of adolescents feel pressure to conform to gender norms, and pressure seems particularly salient for adolescents who feel more similar to their own gender. Furthermore, consistent with constructivist views of gender development, pressure from the self is the strongest pressure reported by young adolescents. Our results offer compelling evidence that informs the way

researchers think about and study pressure to conform to gender norms, providing insights about who feels pressure to conform to gender norms the most strongly.

Acknowledgements Matthew G. Nielson, T. Denny Sanford School of Social and Family Dynamics Arizona State University; Kingsley M. Schroeder, Department of Psychology, Pennsylvania State University; Carol Lynn Martin, T. Denny Sanford School of Human and Family Development, Arizona State University; Rachel E. Cook, T. Denny Sanford School of Social and Family Dynamics, Arizona State University. Partial support for the present research was provided by the Cowden Fellowship fund. Correspondence concerning this manuscript should be addressed to Matthew Nielson, 951 Cady Mall #144, Tempe, AZ 85287. Email: Matthew.nielson@asu.edu

Compliance with Ethical Standards The authors declare no conflict of interest. Further, all procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

References

- Adams, A. (2011). “Josh wears pink cleats”: Inclusive masculinity on the soccer field. *Journal of Homosexuality*, 58(5), 579–596. <https://doi.org/10.1080/00918369.2011.563654>.
- Al-Attar, G., De Meyer, S., El-Gibaly, O., Michielsen, K., Animosa, L. H., & Mmari, K. (2017). A boy would be friends with boys and a girl with girls: Gender norms in early adolescent friendships in Egypt and Belgium. *Journal of Adolescent Health*, 61(4), S30–S34. <https://doi.org/10.1016/j.jadohealth.2017.03.013>.
- Aldenderfer, M. S., & Blashfield, R. K. (1988). Cluster analysis. In M. S. Lewis-Beck (Ed.), *Quantitative applications in the social sciences* (pp. 7–44). Beverly Hills, CA: Sage.
- Anderson, E. (2009). *Inclusive masculinity: The changing nature of masculinities* (1st ed.). New York: Routledge. <https://doi.org/10.4324/9780203871485>.
- Aoyagi, K., Santos, C. E., & Updegraff, K. A. (2018). Longitudinal associations between gender and ethnic-racial identity felt pressure from family and peers and self-esteem among African American and Latino/a youth. *Journal of Youth and Adolescence*, 47(1), 207–221. <https://doi.org/10.1007/s10964-017-0750-0>.
- Ary, D. V., Tildesley, E. B. A., Hops, H., & Andrews, J. (1993). The influence of parent, sibling, and peer modeling and attitudes on adolescent use of alcohol. *The International Journal of Addictions*, 28(9), 853–880. <https://doi.org/10.3109/10826089309039661>.
- Becker, I., Ravens-Sieberer, U., Ottová-Jordan, V., & Schulte-Markwort, M. (2017). Prevalence of adolescent gender experiences and gender expression in Germany. *Journal of Adolescent Health*, 61(1), 83–90. <https://doi.org/10.1016/j.jadohealth.2017.02.001>.
- Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88(4), 354–364. <https://doi.org/10.1037/0033-295X.88.4.354>.
- Bem, S. L. (1993). *The lenses of gender: Transforming the debate on sexual inequality*. Yale University Press. Retrieved from <https://www.jstor.org/stable/j.ctt1nq86n>.
- Biddle, B. J., Barbara, J. B., & Marlin, M. M. (2006). Parental and peer influence on adolescents. *Social Forces*, 58(4), 1057–1079. <https://doi.org/10.2307/2577313>.
- Bigler, R. S., & Liben, L. S. (2006). A developmental intergroup theory of social stereotypes and prejudice. *Advances in Child Development and Behavior*, 34, 39–89. [https://doi.org/10.1016/S0065-2407\(06\)80004-2](https://doi.org/10.1016/S0065-2407(06)80004-2).
- Blakemore, J. E. O., Berenbaum, S. A., & Liben, L. S. (2009). *Gender development*. New York: Psychology Press.
- Brechwald, W. A., & Prinstein, M. J. (2011). Beyond homophily: A decade of advances in understanding peer influence processes. *Journal of Research on Adolescence*, 21(1), 166–179. <https://doi.org/10.1111/j.1532-7795.2010.00721.x>.
- Carver, P. R., Yunger, J. L., & Perry, D. G. (2003). Gender identity and adjustment in middle childhood. *Sex Roles*, 49(3–4), 95–109. <https://doi.org/10.1023/A:1024423012063>.
- Chu, J. Y., Porche, M. V., & Tolman, D. L. (2005). The adolescent masculinity ideology in relationships scale: Development and validation of a new measure for boys. *Men and Masculinities*, 8(1), 93–115. <https://doi.org/10.1177/1097184X03257453>.
- Connell, R. (2005). *Masculinities*. Berkeley, CA University of California Press.
- Cook, R. E., Nielson, M. G., Martin, C. L., & DeLay, D. (2019). How does felt pressure affect adolescents’ gender typicality? Distinguishing sources of felt pressure. *Journal of Youth and Adolescence*, 48, 1912–1923. <https://doi.org/10.1007/s10964-019-01122-y>.
- Drury, K., Bukowski, W. M., Velásquez, A. M., & Stella-Lopez, L. (2013). Victimization and gender identity in single-sex and mixed-sex schools: Examining contextual variations in pressure to conform to gender norms. *Sex Roles*, 69(7–8), 442–454. <https://doi.org/10.1007/s11199-012-0118-6>.
- Egan, S. K., & Perry, D. G. (2001). Gender identity: A multidimensional analysis with implications for psychosocial adjustment. *Developmental Psychology*, 37(4), 451–463. <https://doi.org/10.1037/0012-1649.37.4.451>.
- Epstein, M., & Ward, L. M. (2011). Exploring parent-adolescent communication about gender: Results from adolescent and emerging adult samples. *Sex Roles*, 65(1), 108–118. <https://doi.org/10.1007/s11199-011-9975-7>.
- Farkas, T., & Leaper, C. (2016). The psychology of boys. In Y. J. Wong & S. R. Wester (Eds.), *APA handbook of men and masculinities* (pp. 357–387). Washington, DC: American Psychological Association. <https://doi.org/10.1037/14594-017>.
- Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878–902. <https://doi.org/10.1037/0022-3514.82.6.878>.
- Goodnow, J. J. (1997). Parenting and the transmission and internalization of values: From social-cultural perspectives to within-family analyses. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children’s internalization of values: A handbook of contemporary theory* (pp. 333–361). Hoboken, NJ: John Wiley & Sons Inc..
- Jain, A. K., & Dubes, R. C. (1988). *Algorithms for clustering data*. Englewood Cliffs, NJ: Prentice Hall.
- Jewell, J. A., & Brown, C. S. (2014). Relations among gender typicality, peer relations, and mental health during early adolescence. *Social Development*, 23(1), 137–156. <https://doi.org/10.1111/sode.12042>.
- Kane, E. W. (2006). No way my boys are going to be like that! *Gender & Society*, 20(2), 149–176. <https://doi.org/10.1177/0891243205284276>.
- Kornienko, O., Santos, C. E., Martin, C. L., & Granger, K. L. (2016). Peer influence on gender identity development in adolescence. *Developmental Psychology*, 52(10), 1578–1592. <https://doi.org/10.1037/dev0000200>.
- Lamke, L. K. (1982). The impact of sex-role orientation on self-esteem in early adolescence. *Child Development*, 53(6), 1530–1535. <https://doi.org/10.2307/1130080>.

- Leaper, C. (1994). Exploring the consequences of gender segregation on social relationships. In W. Damon (Ed.), *Childhood gender segregation: Causes and consequences* (pp. 67–86). San Francisco, CA: Jossey-Bass.
- Leaper, C., & Brown, C. S. (2008). Perceived experiences with sexism among adolescent girls. *Child Development*, 79(3), 685–704. <https://doi.org/10.1111/j.1467-8624.2008.01151.x>.
- Leaper, C., Anderson, K. J., & Sanders, P. (1998). Moderators of gender effects on parents' talk to their children: A meta-analysis. *Developmental Psychology*, 34(1), 3–27. <https://doi.org/10.1037/0012-1649.34.1.3>.
- Leaper, C., Farkas, T., & Brown, C. S. (2012). Adolescent girls' experiences and gender-related beliefs in relation to their motivation in math/science and English. *Journal of Youth and Adolescence*, 41(3), 268–282. <https://doi.org/10.1007/s10964-011-9693-z>.
- Liben, L. S. (2017). Gender development: A constructivist-ecological perspective. In N. Budwig, E. Turiel, & P. D. Zelazo (Eds.), *New perspectives on human development* (pp. 145–164). Cambridge: Cambridge University Press.
- Lytton, H., & Romney, D. M. (1991). Parents' differential socialization of boys and girls: A meta-analysis. *Psychological Bulletin*, 109(2), 267–296. <https://doi.org/10.1037/0033-2909.109.2.267>.
- Maccoby, E. E. (1998). *The two sexes: Growing up apart, coming together*. Cambridge: Belknap Press of Harvard University Press. <https://doi.org/10.2307/2655304>.
- MacQueen, J. B. (1967). Some methods for classification and analysis of multivariate observations. In *Proceedings of the Fifth Berkeley Symposium on Mathematical Statistics and Probability* (Vol. 1, pp. 281–297).
- Martin, C. L., & Halverson, C. F. (1981). A schematic processing model of sex typing and stereotyping in children. *Child Development*, 52(4), 1119–1134. <https://doi.org/10.2307/1129498>.
- Martin, C. L., & Halverson, C. F. (1983). The effects of sex-typing schemas on young children's memory. *Child Development*, 54(3), 563–574. <https://doi.org/10.2307/1130043>.
- Martin, C. L., & Ruble, D. (2004). Children's search for gender cues: Cognitive perspectives on gender development. *Current Directions in Psychological Science*, 13(2), 67–70. <https://doi.org/10.1111/j.0963-7214.2004.00276.x>.
- Martin, C. L., Andrews, N. C. Z., England, D. E., Zosuls, K., & Ruble, D. N. (2017). A dual identity approach for conceptualizing and measuring children's gender identity. *Child Development*, 88(1), 167–182. <https://doi.org/10.1111/cdev.12568>.
- Martin-Storey, A., & August, E. G. (2016). Harassment due to gender nonconformity mediates the association between sexual minority identity and depressive symptoms. *Journal of Sex Research*, 53(1), 85–97. <https://doi.org/10.1080/00224499.2014.980497>.
- Morris, M. (2018). "Gay capital" in gay student friendship networks: An intersectional analysis of class, masculinity, and decreased homophobia. *Journal of Social and Personal Relationships*, 35(9), 1183–1204. <https://doi.org/10.1177/0265407517705737>.
- Pascoe, C. J. (2012). *Dude, you're a fag: Masculinity and sexuality in high school* (2nd ed.). Berkeley: University of California Press. <https://doi.org/10.1007/s13398-014-0173-7.2>.
- Pauletti, R. E., Cooper, P. J., & Perry, D. G. (2014). Influences of gender identity on children's maltreatment of gender-nonconforming peers: A person \times target analysis of aggression. *Journal of Personality and Social Psychology*, 106(5), 843–866. <https://doi.org/10.1037/a0036037>.
- Pauletti, R. E., Menon, M., Cooper, P. J., Aults, C. D., & Perry, D. G. (2017). Psychological androgyny and children's mental health: A new look with new measures. *Sex Roles*, 76(11–12), 705–718. <https://doi.org/10.1007/s11199-016-0627-9>.
- Perry, D. G., & Pauletti, R. E. (2011). Gender and adolescent development. *Journal of Research on Adolescence*, 21(1), 61–74. <https://doi.org/10.1111/j.1532-7795.2010.00715.x>.
- Perry, D. G., Pauletti, R. E., & Cooper, P. J. (2019). Gender identity in childhood: A review of the literature. *International Journal of Behavioral Development*, 43(4), 289–304. <https://doi.org/10.1177/0165025418811129>.
- Pleck, J. H. (1983). *The myth of masculinity*. Cambridge, MA: MIT Press.
- Roberts, A. L., Rosario, M., Corliss, H. L., Koenen, K. C., & Austin, S. B. (2012). Childhood gender nonconformity: A risk indicator for childhood abuse and posttraumatic stress in youth. *Pediatrics*, 129(3), 410–417. <https://doi.org/10.1542/peds.2011-1804>.
- Rogers, L. O. (2018). "I'm kind of a feminist": Using master narratives to analyze gender identity in middle childhood. *Child Development*. <https://doi.org/10.1111/cdev.13142>.
- Skinner, O. D., Kurtz-Costes, B., Wood, D., & Rowley, S. J. (2018). Gender typicality, felt pressure for gender conformity, racial centrality, and self-esteem in African American adolescents. *Journal of Black Psychology*, 44(3), 195–218. <https://doi.org/10.1177/0095798418764244>.
- Stone, E. A., Brown, C. S., & Jewell, J. A. (2015). The sexualized girl: A within-gender stereotype among elementary school children. *Child Development*, 86(5), 1604–1622. <https://doi.org/10.1111/cdev.12405>.
- Thomas, R. N., & Blakemore, J. E. O. (2013). Adults' attitudes about gender nonconformity in childhood. *Archives of Sexual Behavior*, 42(3), 399–412. <https://doi.org/10.1007/s10508-012-0023-7>.
- Tylka, T. L. (2011). Refinement of the tripartite influence model for men: Dual body image pathways to body change behaviors. *Body Image*, 8(3), 199–207. <https://doi.org/10.1016/j.bodyim.2011.04.008>.
- Vandenbosch, L., & Eggermont, S. (2013). Sexualization of adolescent boys. *Men and Masculinities*, 16(3), 283–306. <https://doi.org/10.1177/1097184x13477866>.
- Walby, S. (1990). *Theorizing patriarchy*. Cambridge, MA: Basil Blackwell, Ltd. <http://eprints.lancs.ac.uk/63128/1/1990>.
- Way, N., & Rogers, L. O. (2017). Resistance to dehumanization: A developmental and contextual process. In N. Nasir, C. Wainryb, & E. Turiel (Eds.), *Jean Piaget society: Advancing conceptualizations of social development* (pp. 229–257). Cambridge: Cambridge University Press.
- Way, N., Cressen, J., Bodian, S., Preston, J., Nelson, J., & Hughes, D. (2014). "It might be nice to be a girl... Then you wouldn't have to be emotionless": Boys' resistance to norms of masculinity during adolescence. *Psychology of Men and Masculinity*, 15(3), 241–252. <https://doi.org/10.1037/a0037262>.
- Yu, C., Zuo, X., Blum, R. W., Tolman, D. L., Kågesten, A., Mmari, K., ... Lou, C. (2017). Marching to a different drummer: A cross-cultural comparison of young adolescents who challenge gender norms. *Journal of Adolescent Health*, 61(4), S48–S54. <https://doi.org/10.1016/j.jadohealth.2017.07.005>.
- Yunger, J. L., Carver, P. R., & Perry, D. G. (2004). Does gender identity influence children's psychological well-being? *Developmental Psychology*, 40(4), 572–582. <https://doi.org/10.1037/0012-1649.40.4.572>.