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ORIGINAL ARTICLE

# Psychological Androgyny and Children's Mental Health: A New Look with New Measures

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**Abstract** We evaluated Bem's (1981, 1993) thesis that psychological androgyny—perceiving the self to possess characteristics of both genders—is associated with healthy adjustment and minimal gender-polarizing cognition. Prior studies testing Bem's ideas have yielded ambiguous results, mainly because self-perceptions of gender-typed attributes have been inferred narrowly from self-perceptions of expressive and instrumental personality traits. We administered measures of gender identity (self-perceived similarity to a gender) that more clearly capture self-perceptions of attributes typical of a gender, and we examined conjoint influences of same-gender typicality and other-gender typicality on children's self-esteem, internalizing problems, felt pressure for gender differentiation, and sexist ideology. Two studies were conducted with ethnically/racially diverse samples of preadolescent children in the southeastern United States. In Study 1 ($N = 305$, $M_{age} = 10.8$ years), androgynous children (i.e., children who saw themselves as similar to both genders) reported high self-esteem, evidenced few internalizing problems, and reported feeling little pressure for gender differentiation. In Study 2 ($N = 236$, $M_{age} = 11.3$ years), androgynous boys reported few sexist beliefs. Children with other patterns of gender identity (e.g., high same-gender typicality coupled with low other-gender typicality) sometimes showed similar correlates, but each other pattern of gender identity was associated with poor adjustment or strong gender-differentiating cognition on at least one dependent variable whereas androgyny never was. Results support Bem's thesis that persons who perceive themselves as possessing characteristics of both genders enjoy mental health advantages over those who perceive themselves as possessing characteristics of only one.

**Keywords** Androgyny · Gender identity · Gender typing · Gender typicality · Sex Typing · Sexism · Self esteem · Children

According to Bem (1981), psychological androgyny—perceiving the self to possess characteristics of both genders—develops in people who experience little social pressure to conform to the gender stereotypes prevalent in their culture. Because androgynous persons feel free to engage in both same-gender and other-gender behaviors, they base their actions on personal interests, goals, temperaments, and competencies rather than on gender appropriateness. The wide range of behavioral options psychologically available to them increases their chances for a happy, fulfilling life. Even though androgynous persons acknowledge having qualities of both genders, their androgyny is not necessarily motivated by a desire to be similar to both genders; indeed, gender is presumed to be irrelevant to their behavior and self-definition. In contrast, people who experience strong pressure for gender conformity are expected to develop a pervasive and pernicious *gender schema*—a predisposition to perceive the world through a gendered lens, to classify behavioral options in terms of gender appropriateness, to adopt same-gender-stereotyped

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attributes and eschew other-gender ones, to view themselves as either masculine or feminine, and to behave in ways that reinforce their single-gender identity. Because their gender schema predisposes them to forgo potentially satisfying cross-gender options, it may cause frustration and unhappiness.

Research on Bem's (1981, 1993) theory has yielded ambiguous support for her ideas, owing mainly to limitations of the measures of gender identity (self-perceptions of female-typical and male-typical attributes, or of femininity and masculinity, respectively) that she and others have used. The present article reports two studies with preadolescent and early adolescent children (collectively referred to as "children" hereafter) that examine Bem's theorizing using new measures of gender identity, as described later. Study 1 examines whether androgyny is associated with greater self-esteem, fewer peer-reported internalizing symptoms, and less felt pressure for gender differentiation than other patterns of gender identity. Study 2 examines whether androgyny is associated with fewer sexist beliefs. Together, the studies provide information about the relation of androgyny not only to adjustment (self-esteem, internalizing symptoms) but also to forms of gender-polarizing cognition that reflect the gender schema about which Bem spoke (felt pressure for gender differentiation, sexist beliefs).

In most research testing Bem's (1974, 1981, 1985) ideas, self-perception of expressive traits is used to assess self-perceived femininity, and self-perception of instrumental traits is used to infer self-perceived masculinity. Individuals who rate themselves high on both sets of traits are defined as androgynous; persons who view themselves as having more same-gender traits than other-gender traits (e.g., females who see themselves as more expressive than instrumental) are defined as gender-typed; those who view themselves as having more other-gender than same-gender traits are defined as cross-gender-typed; and those who view themselves as having few traits of either sort are said to be undifferentiated. Androgynous persons are presumed to lack a gender schema and thus to be relatively well adjusted and free of gender-polarizing beliefs. Gender-typed and cross-gender-typed persons are believed to be gender schematic and at risk for adjustment problems and gender-polarizing cognition. Undifferentiated persons are believed to lack a gender schema but to be at risk for adjustment difficulties for other reasons (e.g., having impoverished behavioral repertoires).

Numerous studies of both adults and children have explored adjustment differences among the four categories of persons. Some studies have found androgynous persons to be better adjusted (e.g., to have higher self-esteem) than persons of the other groups (Bem 1981; Block 1973; Boldizar 1991; Hall and Halberstadt 1980), but another common result has been to find instrumental traits but not expressive traits to predict healthy adjustment for people of both genders (Aube et al. 1995; Spence and Hall 1996; Whitley 1983). These results suggest that there are benefits to possessing both expressive and instrumental traits, but they also suggest that instrumental traits outweigh expressive traits in importance, perhaps owing to the greater utilitarian value of instrumental competencies in our individualistic culture. (In this article, all studies cited were conducted with U.S. samples unless otherwise noted.)

Although important, these findings cannot be taken as unambiguous support for Bem's (1993) theory. A central problem is that many adults, and probably many children, do not view expressive and instrumental traits as indicators of their gender typicality (i.e., their femininity or masculinity; Spence and Helmreich 1980). In fact, self-ratings on expressive and instrumental traits correlate minimally with self-ratings on the adjectives "feminine" and "masculine" (Pedhazur and Tetenbaum 1979). This is especially likely today because the genders no longer differ reliably in their self-perception or possession of these personality traits (Carver et al. 2003; Sneed et al. 2006). This makes it problematic to use self-ratings of personality traits to infer people's self-perceived gender typicality or to infer a gender schema. It is difficult to argue, for example, that persons classified as gender-typed are gender schematic if they make no cognitive connection between gender and the attributes from which their gender-typed status is being inferred. This consideration has led some to conclude that measures of self-perceived expressive and instrumental traits simply assess people's dispositions to engage in these two specific classes of behaviors but say little, if anything, about people's gender motivation or identity (Egan and Perry 2001; Schmader and Block 2015; Spence 1985; Tobin et al. 2010). Indeed, patterns of self-ratings on expressive and instrumental traits often fail to predict gender phenomena that might be expected to result from a gender schema (e.g., other-gender prejudice; Spence and Helmreich 1980; Wood and Eagly 2015).

An alternative strategy for assessing gender identity might be to infer it from self-perception of attributes in some other domain of gender-stereotyped attributes (e.g., toy and activity choices, friendship patterns, academics, occupational interests, clothing, nonverbal stylistic attributes, or sexual orientation). However, this too has problems. Even children who are aware of the cultural gender stereotypes in a domain differ markedly in the degree to which they endorse the stereotypes, or perceive them to be important prescriptions for a gender. Furthermore, a child's endorsement of stereotypes in one domain is not highly correlated with the child's endorsement of stereotypes in other domains (Edelbrock and Sugawara 1978; Liben and Bigler 2002; Martin 2000; Tobin et al. 2010). Additionally, children's possession of male-stereotyped or female-stereotyped attributes in one domain is only weakly correlated with their possession of similarly gender-typed attributes in other domains (Ruble et al. 2006; Spence and Hall 1996; Spence and Helmreich 1980). Clearly, it is hazardous to infer a person's self-perceived male- or female-typicality from

self-perceptions of gender-typed attributes in any particular domain.

These complicating realities—people differ in the particular constellations of gender-stereotyped attributes they develop as well as in the particular gender stereotypes they assign prescriptive value—led Spence (1985) to propose that felt gender typicality is cognitively constructed by each individual according to a unique personal calculus. She suggested that when people reflect on their gender typicality (either spontaneously or when prompted to do so by someone else), they review their gender-typed attributes in multiple domains, weight and integrate the information according to its salience and perceived importance (drawing on the particular cultural gender stereotypes they have internalized), and reach a summary overall judgment of the degree to which they are representative of their gender.

Egan and Perry (2001) developed a measure of children's felt same-gender typicality designed to capture the end product of the cognitive process Spence (1985) described. They proposed that assessment of gender identity should require children to draw inferences about themselves in relation to *gender category labels* (e.g., "Do you feel similar to other girls/boys?"), allowing them to apply their personal calculus to reach their answers. Research using Egan and Perry's measure supports the construct validity of the measure: The more that children feel gender typical, the more they display gender-typical toy and activity preferences, academic interests, personality traits, playmate preferences, and relationship styles (Carver et al. 2003; Corby et al. 2007; Egan and Perry 2001; Menon 2011, in a study with English children). However, each of these associations is relatively modest, consistent with the marked inter- and intra-individual specificity in people's gender typing and endorsement of cultural gender stereotypes. Studies using Egan and Perry's (2001) measure have also consistently found that the more that children feel same-gender typical, the greater their self-esteem and the fewer internalizing problems they have (Carver et al. 2003; Cooper et al. 2013; Corby et al. 2007; Egan and Perry 2001; Pauletti et al. 2014; Smith and Leaper 2006; Yunger et al. 2004).

Although Egan and Perry (2001) broke ground by assessing children's gender identity as overall felt gender typicality rather than as self-perceived possession of specific gender-stereotyped attributes, their work was limited because they did not also develop a measure of children's felt similarity to the other gender. Indeed, to date no known study has examined whether children with different combinations of felt same-gender typicality and felt other-gender typicality, assessed using Egan and Perry's approach, differ in adjustment or gender-polarizing cognition in ways consistent with Bem's (1993) suggestions.

The purpose of the present research was to evaluate four hypotheses stemming from Bem's (1981, 1993) theorizing using measures of felt same-gender typicality and felt other-gender typicality based on Egan and Perry's (2001) assessment approach. Two hypotheses address the expected benefits of androgyny for children's adjustment, and two hypotheses address the implications of androgyny for children's gender-differentiating cognition.

Hypotheses 1 and 2 are that androgyny is associated with relatively high self-esteem and few peer-reported internalizing symptoms, respectively. Self-esteem and peer-reported internalizing symptoms are only modestly negatively correlated and capture qualitatively different kinds of distress. Low self-esteem reflects low-arousal, privately experienced dejection, whereas peer reports of internalizing behaviors capture overt affective distress. Hypothesis 3 is that androgyny is associated with feeling relatively little pressure for gender differentiation. We administered a measure capturing the pressure children feel from parents, peers, and themselves to enact same-gender behavior and to avoid cross-gender behavior. We expected androgynous children to be relatively free of such pressure. Hypothesis 4 is that androgynous children are relatively free of sexist ideology—beliefs that cast the two genders into different roles vis-à-vis each other. We administered a measure of traditional sexist beliefs (e.g., that men should make decisions for women).

We expected our hypotheses to be confirmed for children of both genders and of all ages under study. Bem (1993) did not suggest that androgyny offers more benefits to one gender than to the other or that one gender is more susceptible to a gender schema than the other, and she argued that the processes she described (e.g., the development of a gender schema) begin during childhood. Nonetheless, we systematically examine whether gender or age moderates associations of gender identity with the dependent variables.

Each hypothesis (of each study) is tested with the use of a multiple regression analysis evaluating the interactive effect of felt same-gender typicality and felt other-gender typicality on the focal dependent variable (e.g., self-esteem). Bem (1993) believed that felt same-gender identity and felt other-gender identity influence adjustment interactively rather than simply additively. Indeed, she argued that identifying with a given gender is advantageous to adjustment only when persons also identify with the other gender.

## Study 1

In this first study, we created a measure of felt other-gender typicality to parallel the Egan and Perry (2001) measure of felt same-gender typicality. We examined the interactive influences of the two gender identity variables on self-esteem, internalizing problems, and felt pressure for gender conformity. Thus, this study tested Hypotheses 1, 2, and 3 by focusing on androgyny in relation to self-esteem, internalizing problems, and felt pressure for gender conformity.

## Method

### Participants

The sample included 305 children (142 boys and 163 girls) in the third through eighth grades of a state university school in southeast Florida (USA). Children averaged 10 years 8 months of age. (Girls averaged 10.8 years, and ranged from 8.1 to 15.0 years; boys averaged 10.9 years, and ranged from 8.2 to 14.2 years.) All children in the third through eighth grades were given a short description of the project in their homeroom, invited to participate, and given a consent form to take home to their parents. The consent form indicated that the project was concerned with children's self-concept and peer relations, and parents were invited to stop by the school office to review the questionnaires before deciding whether to grant permission for their child's participation. About 80 % of the children received written parental consent; the children also signed an assent form before testing began. Table 1 provides demographic information about the participants.

### Procedure

Children were individually tested during school hours in a spare classroom at their school. Measures were administered by one of several graduate students in a session lasting about an hour. The researcher read the items to children in the third grade; children in the other grades read the items silently. Children were assured of the confidentiality of their answers. They generally seemed interested in participating and answering the questionnaires.

### Measures

Self-report scales measuring felt same-gender typicality, felt other-gender typicality, felt pressure for gender conformity, and self-esteem were administered. A peer nomination inventory assessing diverse social behaviors was also administered. New or revised self-report measures are included in an online supplement.

### Felt Gender Typicality Measures

The felt same-gender typicality scale was adapted from Egan and Perry (2001) by adding two new items (to enhance reliability), and the felt other-gender typicality scale was newly created for the present study. Both scales used Harter's (1985) response format. Here, participants are presented with two opposing statements, asked to choose the *one* that better fits them, and then asked to select whether that statement is "very true" for them or "sort of true" for them. The Felt Same-gender Typicality Scale (e.g., "Some girls [boys] don't like to talk or act like other girls [boys] BUT other girls [boys] do like to talk or act like other girls [boys]"; 8 items; $\alpha = .79$) assessed a child's feelings of similarity to same-gender peers. The Felt Other-gender Typicality Scale (e.g., "Some girls [boys] never talk or act like a boy [girl] BUT other girls [boys] do sometimes talk or act like a boy [girl]"; 6 items; $\alpha = .76$) assessed felt similarity to other-gender peers. Items of both scales were scored from 1 to 4, with higher scores indicating higher felt same-gender typicality or higher felt other-gender typicality. Scale scores were item averages. The full scales are included in a supplement available online.

### Self-Esteem

Harter's (1985) 6-item global self-worth scale was used to assess self-esteem (e.g., "Some kids are often unhappy with themselves BUT Other kids are often pretty pleased with themselves"; $\alpha = .80$). Scale scores were averages of items scored from 1 to 4, with higher scores indicating greater self-esteem.

**Table 1** Demographic information for Study 1 participants by race/ethnicity, grade, and gender

| Race/ethnicity | | 3rd Grade | | 4th Grade | | 5th Grade | | 6th Grade | | 7th Grade | | 8th Grade | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | |
| White | 50 % | 15 | 17 | 11 | 17 | 16 | 18 | 10 | 13 | 9 | 14 | 8 | 5 | 153 |
| Black | 22 % | 5 | 9 | 6 | 5 | 5 | 6 | 5 | 7 | 7 | 5 | 3 | 3 | 66 |
| Hispanic | 23 % | 8 | 8 | 6 | 6 | 5 | 6 | 6 | 10 | 6 | 4 | 1 | 3 | 69 |
| Asian | 2 % | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 7 |
| Other | 3 % | 1 | 2 | 2 | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 10 |
| Total | 100 % | 30 | 37 | 26 | 29 | 29 | 31 | 23 | 31 | 22 | 24 | 12 | 11 | 305 |
| Gender by Grades | | 10 % | 12 % | 9 % | 9 % | 9 % | 10 % | 8 % | 10 % | 7 % | 8 % | 4 % | 4 % | 100 % |

*Note*. Entries are counts unless otherwise indicated

**Table 2** Means and standard deviations of measures for Study 1 separately by gender

| Measure | Boys | | Girls | | Gender difference[a] |
|---|---|---|---|---|---|
| | *M* | *(SD)* | *M* | *(SD)* | |
| Felt same-gender typicality | 3.00 | .63 | 2.64 | .62 | .28*** |
| Felt other-gender typicality | 1.65 | .48 | 2.31 | .61 | −.52*** |
| Self-esteem | 3.37 | .63 | 3.35 | .65 | .01 |
| Internalizing problems | .02 | .92 | −.01 | .72 | .02 |
| Felt pressure for gender conformity | 2.83 | .50 | 2.24 | .46 | .52*** |

*Note*. Internalizing problems scores were factor scores (varimax rotation). All other measures on the table were on a 1–4 scale

[a] Values in this column are standardized betas from multiple regression analyses predicting the variable from child gender (coded 0 for girls, 1 for boys) with child age controlled. $df = 2, 302$

***$p < .001$

*Internalizing Problems*

Children's internalizing problems were assessed with a two-item scale ($r = .53$) deriving from a factor analysis performed on a 22-item peer nomination inventory assessing diverse social behaviors with peers. Items were "She [He] says bad things about herself [himself]" and "She [He] seems unhappy and looks sad often." The inventory was a short form of a 53-item inventory used by Carver et al. (2003). The factor analysis (varimax rotation) produced a four-factor structure, but the other factors were not relevant to the current study. Each child's score on internalizing problems was determined by calculating the percentage of classmates (of both genders) who nominated the child for an item, standardizing these item scores within classroom, and averaging the child's standardized scores across the two items.

*Felt Pressure for Gender Conformity*

A self-report measure assessing felt pressure for gender conformity (adapted from Egan and Perry 2001, lengthened to improve reliability) was administered (24 items; $\alpha = .86$). The measure assessed a child's feelings of pressure from parents, peers, and the self to enact same-gender behavior and to avoid other-gender behavior (e.g., "My parents would be upset if they saw me acting like a boy [girl]"). Scale scores were averages of items scored from 1 ("Not at all true for me") to 4 ("Very true for me"), with higher scores indicating higher felt pressure for gender conformity. The scale is included in the online supplement.

## Results

*Gender and Age Differences in Measures*

Means and standard deviations of the measures are given separately by gender in Table 2. To discern gender and age effects, each measure served as a dependent variable in a multiple regression analysis with age and gender entered as simultaneous predictors. With age controlled, boys scored higher than girls on felt same-gender typicality ($B = .28, p < .001$) and on felt pressure for gender conformity ($B = .52, p < .001$), but girls scored higher than boys on felt other-gender typicality ($B = -.52, p < .001$). With gender controlled, age was related to same-gender typicality ($B = .18, p = .001$).

*Correlations of Measures*

Table 3 displays relations among the measures for each gender, with age controlled. Consistent with prior research, felt same-gender typicality was generally associated with positive adjustment, including higher self-esteem and lower internalizing problems. Felt other-gender typicality was less consistently related to adjustment.

**Table 3** Correlations of measures for Study 1 separately by gender

| Measure | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. Felt same-gender typicality | – | −.17* | .24** | −.18* | .40*** |
| 2. Felt other-gender typicality | −.50*** | – | −.14 | −.04 | −.37*** |
| 3. Self-esteem | .28*** | −.17* | – | −.36*** | .02 |
| 4. Internalizing problems | −.18* | .13 | −.13 | – | −.01 |
| 5. Felt pressure for gender conformity | .30*** | −.32*** | −.11 | .02 | – |

*Note*. Correlations for boys are above the diagonal; correlations for girls are below the diagonal

Entries are partial correlations with age controlled

*$p < .05$. **$p < .01$. ***$p < .001$

*Relations of Felt Same- and Other-Gender Typicality to the Dependent Variables*

To examine the hypothesized interactive influences of felt same-gender typicality and felt other-gender typicality, a multiple regression analysis was run on each dependent variable (i.e., self-esteem, internalizing problems, and felt pressure for gender conformity). Multicollinearity was not a concern; all VIF and Tolerance values were acceptable (all VIFs < 3.20, most < 1.50). The regression model was the same for each dependent variable. On the first step, age and gender were entered. On the second step, same-gender typicality and other-gender typicality were entered. On the third step, the focal two-way interaction of same-gender typicality × other-gender typicality was tested. When this interaction was significant and not moderated by either gender or age on later steps of the model, we examined (i.e., plotted) the interaction for the total sample.

The next two steps of the model evaluated whether gender moderated effects of the gender identity variables. On the fourth step, the two-way interactions of gender × same-gender typicality and gender × other-gender typicality were entered. On the fifth step, the three-way interaction of gender × same-gender typicality × other-gender typicality was evaluated. When this interaction was significant and not moderated by child age on later steps, we ran a separate regression analysis for each gender and examined the interaction for the gender(s) for which the interaction was significant. Results of the regression analyses through the first five steps of the analyses are presented in Table 4. As indicated in the table, each analysis showed that same-gender typicality and other-gender typicality interactively were associated with the outcome variable (i.e., the interaction term entered on either the third or fifth step of the regression analysis was significant). (To save space, results of subsequent steps evaluating interactions of child age with other variables are not given in the table; only one effect of age was significant, described next.)

To examine whether child age moderated the interaction of same-gender typicality and other-gender typicality, the three-way interaction of age × same-gender typicality × other-gender typicality was entered on the sixth step of the regression model (along with the two-way interactions of age with each other variable, as controls). Finally, to examine the four-way interaction of age × gender × same-gender typicality × other-gender typicality, this interaction was evaluated on the seventh step of the regression model (with all three-way interactions controlled). Of all the potential effects of child age, only one was significant. This was the three-way interaction of age × same-gender typicality × other-gender typicality in the analysis on children's internalizing problems; we therefore examined the focal two-way interaction of same-gender typicality and other-gender typicality separately for younger and older children, as described later (in results for Hypothesis 2).

To examine the nature of a significant two–way interaction (of same-gender typicality × other-gender typicality), we plotted it following the procedures recommended by Aiken and

**Table 4** Hierarchical regression analyses predicting felt pressure for gender conformity and adjustment from same- and other-gender typicality (Study 1)

| | Dependent variable | | | | | |
|---|---|---|---|---|---|---|
| | Felt pressure for gender conformity | | Self-esteem | | Internalizing problems[a] | |
| Predictor | $\Delta R^2$ | *B* | $\Delta R^2$ | *B* | $\Delta R^2$ | *B* |
| Step 1 | .27*** | | .01 | | .00 | |
| Age | | .04 | | .09 | | .04 |
| Gender | | .52*** | | .01 | | .02 |
| Step 2 | .13*** | | .07*** | | .03** | |
| Felt same-gender typicality | | .24*** | | .25*** | | −.19** |
| Felt other-gender typicality | | −.24*** | | −.08 | | −.02 |
| Step 3 | .03*** | | .00 | | .02* | |
| Felt same- × felt other-gender typicality | | −.18*** | | −.06 | | −.14* |
| Step 4 | .00 | | .00 | | .00 | |
| Felt same-gender typicality × gender | | .04 | | −.05 | | −.13 |
| Felt other-gender typicality × gender | | −.03 | | −.02 | | −.01 |
| Step 5 | .00 | | .03** | | .00 | |
| Felt same- × felt other-gender typicality × gender | | −.08 | | .26** | | −.04 |

[a] As indicated in the text, the analysis on internalizing problems also yielded a three-way interaction of child age × felt same-gender typicality × felt other-gender typicality, $B = -.20$, $p < .01$

*$p < .05$. **$p < .01$. ***$p < .001$

West (1991). For consistency, interactions are always depicted to show the relation of same-gender typicality to the dependent variable at high (+1 *SD*) and low (−1 *SD*) levels of other-gender typicality.

*Testing Hypothesis 1*

Hypothesis 1 predicted that androgyny would be associated with relatively high self-esteem. The analysis on self-esteem yielded a three-way interaction of gender × same-gender typicality × other-gender typicality on the fifth step ($B = .26$, $p = .004$; see Table 4). Follow-up regressions were conducted separately for boys and girls, with age entered on the first step, main effects of same-gender typicality and other-gender typicality on the second step, and the interaction of same-gender typicality × other-gender typicality on the third step. The interaction was significant for girls ($B = -.16$, $p = .030$; see Fig. 1a) and marginally significant for boys ($B = .16$, $p = .055$; see Fig. 1b). Although the pattern differed by gender, it is clear that for both genders androgynous children reported fairly high self-esteem. (For convenience, the letter A—for androgyny—is placed in each figure at the data point representing the combination of high same-gender typicality and high other-gender typicality.)

Notice that for neither gender were androgynous children the only ones with fairly high self-esteem. In fact, girls who identified only with their own gender reported somewhat higher self-esteem than androgynous girls. For boys, three of the four patterns of gender identity were associated with fairly high self-esteem; only cross-gender-identified boys reported low self-esteem. We later comment on this gender difference.

*Testing Hypothesis 2*

Hypothesis 2 proposed that androgyny would be associated with relatively few internalizing problems. The analysis on internalizing problems yielded not only a significant two-way interaction of same-gender typicality and other-gender typicality ($B = -.14$, $p = .02$; see Table 4) but also a significant three-way interaction of age × same-gender typicality × other-gender typicality ($B = -.20$, $p = .002$). Thus, follow-up regression analyses were run separately for younger children (grades 3–5) and older children (grades 6–8), with gender entered on the first step, main effects of same-gender typicality and other-gender typicality on the second step, and the interaction of same-gender typicality × other-gender typicality on the third step. The interaction was significant for older children ($B = -.58$, $p < .001$) but not for younger children (for whom there was only a marginally significant main effect of same-gender typicality, $B = -.16$, $p < .10$). The interaction for older children (see Fig. 2) shows that, consistent with hypothesis, androgynous children clearly had fewer internalizing symptoms than other children; in contrast, children with strong other-gender typicality and low same-gender typicality showed the most internalizing problems.

*Testing Hypothesis 3*

Hypothesis 3 expected androgyny to be associated with reduced felt pressure for gender conformity. The analysis on felt pressure for gender conformity yielded a significant interaction on Step 3 ($B = -.18$, $p < .001$). This interaction, which was not moderated by gender or age, is depicted in Fig. 3. It is clear that androgyny is associated with fairly low felt pressure for gender conformity. However, so are two other combinations of the gender identity variables; in fact, it is only the combination of high same-gender typicality and low other-gender typicality that is associated with high felt pressure.

*Summary*

Consistent with Bem's (1981, 1993) theorizing, androgynous children—those high on both dimensions of felt gender typicality—showed fairly good adjustment across the three dependent measures (though androgyny was associated with reduced internalizing symptoms only for older children). Although androgynous children sometimes shared their adjustment advantage with children of another gender identity pattern, the androgynous pattern was the only one not associated with disadvantage on at least one outcome measure.

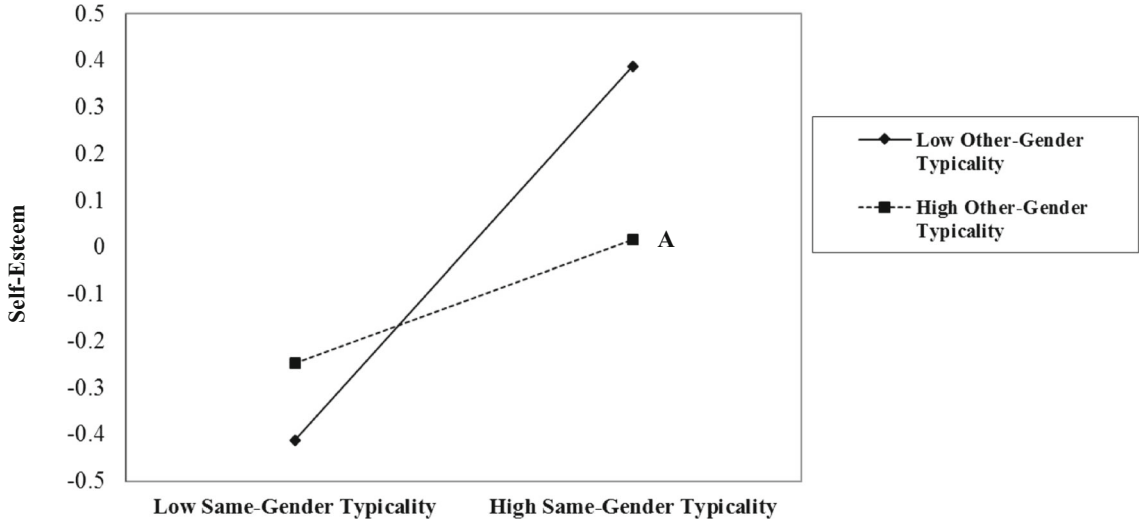
## Study 2

Here we evaluated the hypothesis that androgynous children are relatively unlikely to develop traditional sexist beliefs, such as the belief that women should be subservient to men or should occupy only traditionally female professions (Hypothesis 4). Thus we focus here on androgyny in relation to sexist ideology.

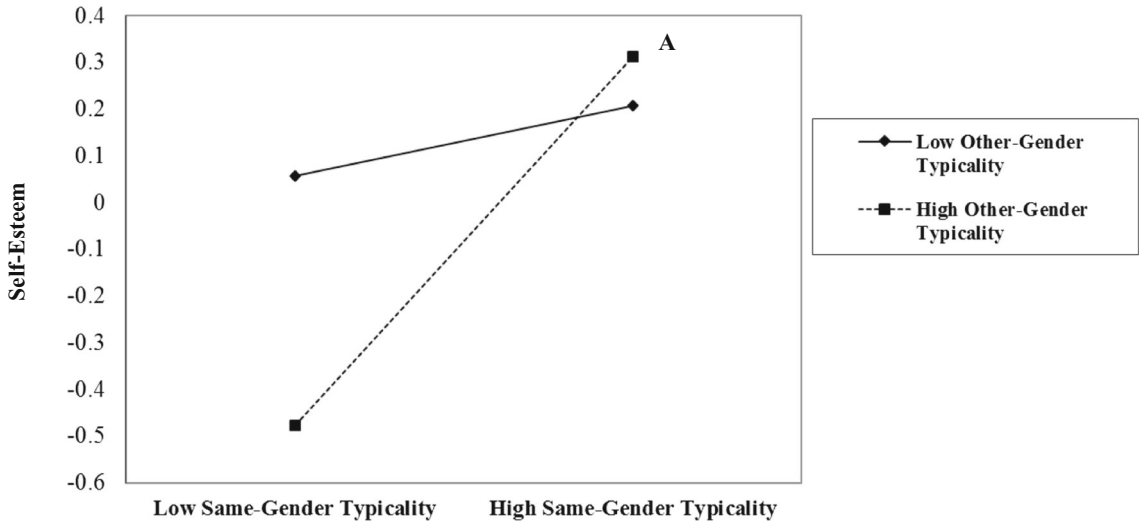
### Method

*Participants and Procedure*

Participants were 236 children (129 girls, 107 boys) in the fourth through eighth grades of a public school in southeast Florida (USA). Children averaged 11.3 years of age. (Girls averaged 11.4 years, and ranged from 9.1 to 14.4 years; boys averaged 11.2 years, and ranged from 9.2 to 14.0 years.) Procedures of child recruitment and testing were the same as those of Study 1. Table 5 provides demographic information about the participants.




a. Girls




b. Boys

**Fig. 1** Interactive influences of same-gender typicality and other-gender typicality on **a** girls' and **b** boys self-esteem. (Androgynous children are marked with an "A.")

*Measures*

The self-report scales of felt same-gender typicality ($\alpha = .73$) and felt other-gender typicality ($\alpha = .84$) were the same as those for Study 1. A 24-item scale measuring self-reported sexist ideology was administered (Menon et al. 2007). Items were modeled after those of the Attitudes Toward Women Scale (Spence and Helmreich 1972). Responses to items could

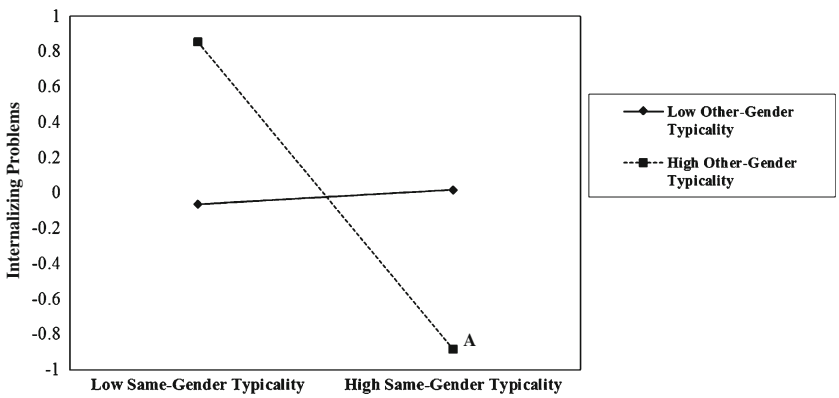



**Fig. 2** Interactive influences of same-gender typicality and other-gender typicality on older children's internalizing problems. (Androgynous children are marked with an "A.")

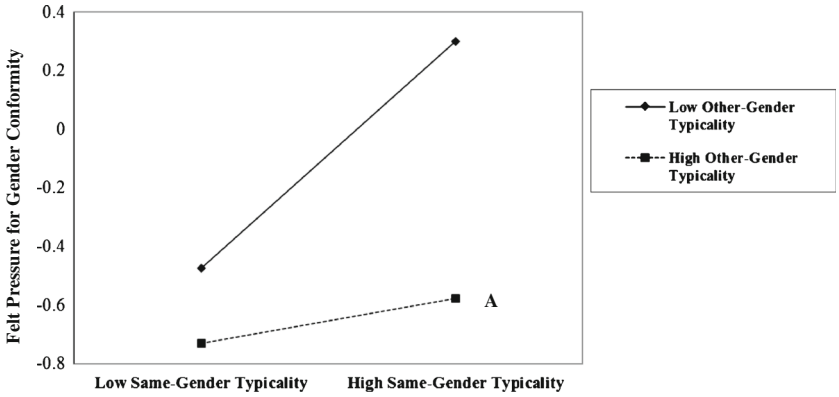



**Fig. 3** Interactive influences of same-gender typicality and other-gender typicality on children's felt pressure for gender conformity. (Androgynous children are marked with an "A.")

range from 1 (*Disagree Strongly*!) to 5 (*Agree Strongly!*), with higher scores indicating greater endorsement of sexist beliefs. Scale scores were item averages. Items assessed traditional gender beliefs about dating relationships (e.g., "A girl should treat her boyfriend like he's the boss"), the workplace (e.g., "Men should be chosen over women when being hired or promoted for a job"), and family roles (e.g., "A wife should do what her husband says"). The scale is reliable ($\alpha = .90$) and predicts overt aggression by boys towards girls (Cooper 2014). The scale is included in the online supplement.

## Results

### *Gender and Age Differences in Measures*

Means and standard deviations of the measures are presented in Table 6. As in Study 1, gender and age differences were examined by treating each measure as a dependent variable in a regression analysis with age and gender as simultaneous predictors. Boys scored higher than girls on sexist ideology ($B = .54$, $p < .001$). Girls scored higher than boys on other-gender typicality ($B = -.65$, $p < .001$). Age was positively correlated with same-gender typicality ($B = .28$, $p < .001$) but negatively correlated with other-gender typicality ($B = -.13$, $p = .01$) and with sexist ideology ($B = -.22$, $p < .001$).

### *Correlations of Measures*

Table 7 displays the correlations among the measures for each gender, controlling for age. Same-gender typicality was positively associated with sexist ideology for boys but not girls; felt other-gender typicality was not associated with sexist ideology for either gender.

### *Testing Hypothesis 4*

Hypothesis 4 predicted that androgyny would be associated with relatively low sexist ideology. A multiple regression analysis similar to that used in Study 1 was run on children's sexist beliefs. Results through the fifth step of the model are summarized in Table 8; no effect involving child age was significant. Multicollinearity was not a concern (all VIFs < 3.20, most < 1.50). The three-way interaction of gender × same-gender typicality × other-gender typicality was significant on Step 5 ($B = -.27$, $p = .01$), and thus a follow-up regression was run for each gender. The interaction of same-gender typicality × other-gender typicality was significant for boys ($B = -.22$, $p = .03$) but not for girls ($B = .00$). The interaction for boys is depicted in Fig. 4. As predicted, androgynous boys (as well as boys with two other patterns of gender identify) exhibited few sexist beliefs. In contrast, boys who

**Table 5** Demographic information for Study 2 participants by race/ethnicity, grade, and gender

| | | 4th Grade | | 5th Grade | | 6th Grade | | 7th Grade | | 8th Grade | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | |
| White | 53 % | 15 | 15 | 17 | 15 | 12 | 16 | 9 | 16 | 3 | 7 | 125 |
| Black | 20 % | 5 | 6 | 3 | 7 | 5 | 4 | 4 | 7 | 1 | 6 | 48 |
| Hispanic | 18 % | 6 | 5 | 8 | 6 | 5 | 4 | 2 | 5 | 0 | 2 | 43 |
| Asian | 4 % | 1 | 2 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 9 |
| Other | 5 % | 2 | 1 | 1 | 0 | 3 | 1 | 0 | 1 | 1 | 1 | 11 |
| Total | 100 % | 29 | 29 | 29 | 28 | 26 | 25 | 17 | 30 | 6 | 17 | 236 |
| Gender by grades | | 12 % | 12 % | 12 % | 12 % | 11 % | 11 % | 7 % | 13 % | 3 % | 7 % | 100 % |

*Note*. Entries are counts unless otherwise indicated

**Table 6** Means and standard deviations of measures for Study 2 separately by gender

| Measure | Boys | | Girls | | Gender difference[a] |
|---|---|---|---|---|---|
| | *M* | *(SD)* | *M* | *(SD)* | |
| Felt same-gender typicality | 2.89 | .62 | 2.78 | .71 | .10 |
| Felt other-gender typicality | 1.48 | .41 | 2.37 | .63 | −.65** |
| Sexist ideology | 2.24 | .62 | 1.56 | .38 | .54*** |

*Note*. Felt same-gender typicality and felt other-gender typicality scores were on a 1–4 scale. Sexist ideology scores were on a 1–5 scale

[a] Values in this column are standardized betas from multiple regression analyses predicting the variable from child gender (coded 0 for girls, 1 for boys) with child age controlled. $df = 2, 233$

*** $p < .001$

identified only with the male gender were exceptionally high in sexist ideology.

The pattern of this interaction is strikingly similar to that of Fig. 3, which depicts the interactive influence of the gender typicality variables on felt pressure for gender conformity. Both interaction patterns indicate little gender-polarizing cognition among androgynous children and a high level of such cognition among children who identify only with their own gender.

## Discussion

Over 30 years ago, Sandra Bem (1981, 1993) advanced her provocative notion that androgynous persons—those who perceive themselves to possess qualities characteristic of both genders—are better adjusted and possess fewer gender-polarizing beliefs than persons who view themselves as similar to only a single gender. Measurement problems characterized Bem's (and others') attempts to test her hypotheses, however, leading to ambiguous results and stymying progress toward evaluating the merits of her ideas. Using new measures of gender identity, we found that children who saw themselves as similar to both genders—androgynous children—indeed showed relatively good adjustment (high self-esteem and, for older children, few internalizing problems) and little gender-differentiating cognition (little felt pressure for gender conformity and, for boys, few sexist beliefs). Children with other patterns of gender identity sometimes resembled androgynous children on one or more dependent variables, but each other pattern of gender identity was associated with poor adjustment or with gender-polarizing cognition on at least one dependent measure whereas androgyny never was.

It is instructive to compare each other pattern of gender identity with the androgynous one. Children who identified exclusively with their own gender—who appraised themselves as more similar to same-gender peers than to other-gender ones—were fairly similar to androgynous children in their high self-esteem and few internalizing problems, but they also scored high on felt pressure for gender conformity and (for boys) sexist ideology. This suggests that the principal harmful effect of perceiving the self to be different from the other gender may be gender-polarizing cognition rather than internalized distress. Cross-gender identified children—who perceived themselves as more similar to other-gender peers than to same-gender ones—evidenced few gender-polarizing cognitions and thus were similar to androgynous children in this respect, but they lacked self-esteem and displayed internalizing difficulties. This suggests that the principal harmful effect of perceiving the self to be different from others of one's own gender may be internalized distress rather than gender-polarizing beliefs. Undifferentiated children—who failed to see themselves as similar to peers of either gender—were similar to androgynous children in that they lacked gender-polarizing cognition, but they had internalizing difficulties and, if female, low self-esteem. Thus, the ill effects of undifferentiated gender identity appear rather similar to those of cross-gender identity.

Although our results did not reveal androgynous children always to have better adjustment and less gender-polarizing cognition than children with other gender identity patterns, the benefits of androgyny should not be underestimated. Androgynous children never showed any of the disadvantages associated with identifying with only one (or neither) gender. When children view themselves as different from children of one gender or the other, and thereby place themselves in an either-or gender space, they clearly are at risk for either poorer adjustment or gender-polarizing beliefs. Children who are

**Table 7** Correlations of measures for Study 2 separately by gender

| Measure | 1 | 2 | 3 |
|---|---|---|---|
| 1. Felt same-gender typicality | – | −.32** | .19* |
| 2. Felt other-gender typicality | −.52*** | – | −.14 |
| 3. Sexist ideology | −.05 | .01 | – |

*Note*. Correlations for boys are above the diagonal; correlations for girls are below the diagonal. Entries are partial correlations with age controlled

*$p < .05$. **$p < .01$. ***$p < .001$

**Table 8** Hierarchical regression analysis predicting sexist ideology from same- and other-gender typicality (Study 2)

| Predictor | $\Delta R^2$ | *B* |
|---|---|---|
| Step 1 | .36*** | |
| Age | | −.22*** |
| Gender | | .54*** |
| Step 2 | .01 | |
| Felt same-gender typicality | | .07 |
| Felt other-gender typicality | | −.03 |
| Step 3 | .01* | |
| Felt same- × felt other-gender typicality | | −.12* |
| Step 4 | .00 | |
| Felt same-gender typicality × gender | | .05 |
| Felt other-gender typicality × gender | | −.06 |
| Step 5 | .02* | |
| Felt same- × felt other-gender typicality × gender | | −.27* |

*$p < .05$. **$p < .01$. ***$p < .001$

comfortable acknowledging that they are similar to persons of both genders are less vulnerable to these risks. Androgyny thus serves a protective function.

An important issue about the construct of psychological androgyny warrants comment. Although Bem (1993) defined androgyny as perceiving the self to possess both female-typical and male-typical traits, she did not believe that androgyny results from conscious or unconscious efforts to achieve a dual gender identity—to perceive the self as similar to both genders (i.e., to feel both feminine and masculine). Indeed, she saw androgyny as facilitated by the *absence* of gender scripts and pressures and resulting from other factors (e.g., personal temperament, interests, and abilities). We share Bem's view, and we believe it applies to androgyny when defined by our assessment approach as well. That is, we believe it is unlikely that children who acknowledge that they are similar to persons of both genders strive for a dual gender identity. It seems more likely that they are fairly free of gender standards and pressures yet when asked to estimate their gender typicality are able to conclude (and comfortably report) that they do possess both female-typical and male-typical attributes. This analysis suggests that androgynous children, although free of prescriptive gender stereotypes (e.g., "It is more important for boys than for girls to play sports"), are cognizant of common descriptive gender stereotypes (e.g., "Boys play sports more than girls"), and are able to compare themselves to the latter when prompted to do so. These ideas might be tested in future research.

Although we share Bem's (1993) belief that androgynous individuals are unlikely to strive for a dual gender identity, it seems likely that some androgynous adults, and perhaps even a few androgynous children, do self-regulate with a desire to achieve androgyny. Domestic partners who share egalitarian values, for example, might each strive to adopt behaviors traditionally prescribed for both genders. It would be interesting to assess this motivation and to see whether it moderates androgyny's impact on mental health and gender-polarizing thought and action. Might androgynous persons who self-regulate to perceive themselves as similar to both genders have higher self-esteem, or be less inclined toward gender prejudice and discrimination, than androgynous persons who do not?

Bem's (1981, 1993) gender schema construct also merits comment. Bem viewed a gender schema as a

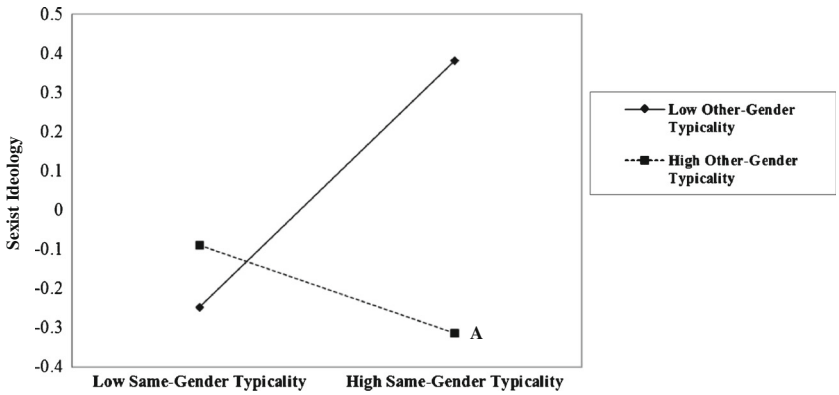



**Fig. 4** Interactive influences of same-gender typicality and other-gender typicality on boys' sexist ideology. (Androgynous boys are marked with an "A.")

pervasive and pernicious tendency to self-socialize in accordance with gender stereotypes. She believed the schema typically originates from external social pressures for gender conformity and causes individuals to develop a strong same-gender identity and a weak other-gender one. Some persons develop the opposite pattern—a strong other-gender identity and a weak same-gender one; they too are thought to be gender schematic, although their schema is more likely to be intrinsically motivated. Androgynous and undifferentiated persons lack a gender schema. Our data provide especially convincing support for Bem's (1993) belief that strong felt pressure for gender conformity is associated with strong same-gender identity paired with weak other-gender identity (see Fig. 3).

This result, along with findings from other studies using a similar measure of felt pressure for gender conformity, has led us to conclude that it probably is appropriate to consider our measure of felt pressure for gender conformity to be a direct measure of the harmful gender schema Bem described. Felt pressure for gender conformity motivates children not only to avoid cross-gender behavior (Egan and Perry 2001) but also to emulate the prescriptive same-gender stereotypes they have internalized (Tobin et al. 2010). Felt pressure for gender conformity also predicts internalizing problems and reduced self-esteem, especially for girls (Carver et al. 2003; Corby et al. 2007; Egan and Perry 2001; Yunger et al. 2004). These same studies also show that children who feel gender atypical experience internalized distress mainly if they also feel strong pressure for gender conformity; children who feel gender-atypical but lack such pressure are relatively unperturbed by their gender nonconformity. Further, children who feel gender atypical yet also feel strong pressure for gender conformity single out gender-nonconforming peers for maltreatment (Pauletti et al. 2014). These are the kinds of negative outcomes that Bem believed derive from a pernicious gender schema fueled by felt pressure for gender conformity. We believe theory and research on gender would profit from greater attention to this centrally important variable.

It is worth noting that Bem (1993) frequently asserted that the essence of androgyny is freedom from felt pressure for gender conformity. She stated, for example, "…androgyny provides both a vision of utopia and a model of mental health that does not require the individual to banish from the self whatever attributes and behaviors the culture may have stereotypically defined as appropriate for his or her sex." (p. 124). Clearly, despite her operational definition of androgyny as self-perception of both male-typical and female-typical attributes, Bem's conceptual definition focused on the absence of a gender schema. A task for future researchers of androgyny is to consider more thoughtfully the implications of conceptualizing (and assessing) androgyny as perceived similarity to both genders versus lack of felt pressure for gender conformity.

Although children with strong same-gender identity and weak other-gender identity on average reported high felt pressure for gender conformity, some children with this pattern of gender identity may not have experienced much social pressure for gender conformity. Children with the other-gender identity pattern (i.e., cross-gender-identified children) almost certainly lack such pressure. Gender-typed behavior results from interactions among a host of environmental, biological, and cognitive variables (Ruble et al. 2006), and it is important not to overemphasize the role of a self-limiting gender schema in its development.

In future, it would be interesting to collect separate assessments of children's felt external pressure and felt internal pressure for exhibiting (and suppressing) behaviors associated with each gender. For example, perhaps children with cross-gender identity are especially at risk for distress if they report strong intrinsic pressure for conformity to the other gender and strong extrinsic pressure against it.

An additional important moderator of the relations of the gender identity patterns (and of felt pressure for gender conformity) to adjustment and other outcomes is the content of the particular prescriptive gender stereotypes a child adopts (Tobin et al. 2010). Bem (1985) believed that a gender schema causes fairly indiscriminant emulation of same-gender cultural stereotypes. This is doubtful, however, given that there exists considerable intra- and inter-individual variability in the particular prescriptive stereotypes children endorse (e.g., in defining masculinity, one boy may assign great importance to aggressive domination and no importance to athletic prowess; another boy may have the reverse priorities). The consequences of gender identity for adjustment likely hinge critically on the cultural gender stereotypes a child adopts for self-regulation. This may be especially true for persons who perceive themselves as similar to their own gender but as dissimilar to the other.

As expected, few relations were moderated by child gender or age. Relations of the gender identity patterns to self-esteem did vary with gender (see Fig. 1). Androgynous children of both genders had fairly high self-esteem, but more gender identity patterns were associated with high self-esteem for boys than for girls. By these ages boys may have an easier time than girls finding sources of self-worth, contributing to their overall higher self-esteem (Ruble et al. 2006). Girls may have narrowed their criteria for judging themselves gender typical to a smaller number of heavily weighted factors (e.g., relationship success, attractiveness), making it more difficult for them to view themselves positively (Perry and Pauletti 2011). For boys, the only gender identity pattern associated with low self-esteem was the cross-gender-identified pattern, and this is not surprising. Nor is it surprising that only boys with high same-gender identity and low other-gender identity endorsed sexist beliefs. Androgyny was associated with fewer internalizing problems only for older children. Perhaps older

children are better able to appreciate the self-limiting implications of identifying with only a single gender.

Results of this research challenge the argument of Spence (1985) and of Egan and Perry (2001) that felt gender typicality is best conceptualized as a single bipolar dimension, with perception of similarity to same-gender persons at one end and perception of similarity to other-gender persons at the other. In prior research on gender identity, Perry and his colleagues (e.g., Carver et al. 2003; Egan and Perry 2001; Yunger et al. 2004) have not administered a measure of felt other-gender typicality to children along with their measure of felt same-gender typicality because they assumed that the two scales would be too strongly inversely correlated to make it necessary to administer both. However, in the present studies, the correlation between these two dimensions of gender identity was modest, and the dimensions interactively predicted the dependent variable(s). Clearly, it is fruitful to construe and assess same-gender typicality and other-gender typicality separately, as Bem (1981) proposed.

Our measures of gender identity offer important advantages over the use of self-perceived expressive and instrumental traits (or attributes drawn from any other domain of cultural gender stereotypes) to infer a person's overall self-perceived female-typicality or male-typicality. Our measures respect the fact that children (and adults) differ in the cultural gender messages they internalize and hence their criteria for judging their femininity or masculinity. Moreover, because our assessment strategy is not tethered to specific, concrete gender-typed referents, it can be applied across different cultures, ages, and times in history.

A limitation of our studies is that the data were collected concurrently rather than longitudinally. It is conceivable, as Bem (1993) and we believe, that gender identity patterns are causal influences on adjustment and gender-differentiating cognition, but the causal arrow may run in the reverse direction as well (or even instead). Longitudinal work designed to identify determinants of the various patterns of gender identity is needed. Identifying the origins of felt pressure for gender conformity—the essence of Bem's gender schema—is particularly important given its putative role in shaping patterns of gender identity and its other negative implications for adjustment, cognition, and social behavior. Although felt pressure for gender conformity may often originate in families and peer groups that socialize gender differentiation, it also appears to be stimulated by insecurity deriving from poor relationships with peers (Yunger et al. 2004) or with parents (Cooper et al. 2013).

Our assumptions, findings, and interpretations of data should not be generalized to other cultures. We have demonstrated advantages of psychological androgyny in samples of North American children, but in cultures where persons who violate gender norms are imprisoned (or worse), there may lie danger in androgyny and advantage in internalizing and abiding by gender norms (and in holding sexist views). It seems likely that the advantages of androgyny (as well as the dangers of identifying with only a single gender) are greatest for persons who live in cultures where gender equality is encouraged (and perhaps legislated), because in such cultures pursuing one's personal, gender-free agendas stands to benefit the individual and there may be heavy costs associated with sacrificing one's personal desires to gender norms. Nonetheless, there may be an important role for androgynous persons in cultures with more traditional gender roles and boundaries. In these cultures, it may fall to androgynous persons—those with inclusive social identities—to perceive the inequality in gender divisions and to take on the responsibility of promoting social change.

**Compliance with Ethical Standards** The data presented here were collected in compliance with all APA ethical guidelines. We obtained IRB approval prior to data collection. We obtained written parental consent and child assent from all participants. Participants were treated according to APA ethical standards.

**Conflict of interest** There were no conflicts of interest involved in data collection or in the preparation of this manuscript.

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