Sex Roles
DOI 10.1007/s11199-014-0357-9

FEMINIST FORUM COMMENTARY

Gender Differences in Child and Adolescent Social Withdrawal: A Commentary

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Abstract In a manuscript entitled, "Bashful boys and coy girls: A review of gender differences in childhood shyness" Doey et al. (2013) suggest that shyness and its related constructs pose a greater developmental risk for boys compared to girls. They support this claim by citing empirical evidence suggesting that shy and anxiously withdrawn boys are responded to more negatively by important others (i.e., parents, peers, and teachers) and that the relationship between internalizing problems and anxious withdrawal is stronger for boys compared to girls. The principal aim of our commentary is to provide a critical examination of Doey et al.'s conclusions vis-à-vis gender differences in child and adolescent shyness. In this response, we begin by providing important theoretical background regarding shyness and its related constructs. Next, we critically examine the two main arguments the authors use in support of their conclusion through a review of existing empirical and theoretical work as well as the presentation of data from *The Friendship Project*. These data were analyzed with the specific purpose of providing an empirical test of the hypotheses implicit in Doey et al.'s primary arguments: 1) shy and anxiously withdrawn boys are responded to more negatively than girls and 2) the association between anxious withdrawal and internalizing problems is stronger for boys compared to girls. Our results indicate mixed support for these two claims. Finally, we conclude by suggesting new directions for future researchers interested in clarifying the relationship between gender and both the correlates and outcomes of childhood shyness.

Keywords Gender · Shyness · Social withdrawal · Childhood · Adolescence

Introduction

Are there gender differences in the extent to which boys and girls are viewed by others as shy? Do significant adults and peers in children's lives respond to shyness in different ways for boys and girls? Is shyness a greater risk factor for the development of negative social and emotional outcomes for boys than girls? These and other questions are raised in the Doey et al. (2013) manuscript entitled "Bashful boys and coy girls: A review of gender differences in childhood shyness." In this response to the Doey et al. manuscript, our principal aim is to critically examine the veracity of the claims made by the authors vis-à-vis gender differences in child and adolescent shyness. A secondary aim is to examine relevant data from an ongoing study of social withdrawal among young adolescents that addresses each of the central issues raised by Doey et al. These original analyses provide new empirical examinations of the claims made by Doey et al. In terms of the additional empirical work that we present throughout the commentary to further support or critique the authors' claims, it is important to note that much of the extant work on social withdrawal and shyness has been conducted in the U.S. and Canada. Given the relevance of cultural norms in considering gender differences in social behaviors, cited studies, unless otherwise noted, are based on U.S. and Canadian samples.

The Title and the Background

A first glance of the title of the Doey et al. (2013) manuscript suggests that the reader will encounter a review of gender differences in childhood *shyness*. From the outset, it must be

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Published online: 27 February 2014

acknowledged that this is not what the reader receives. We do not mean to be critical by suggesting that the promised review is not what the reader receives; rather, we simply wish to acknowledge that the authors have taken their review well beyond the confines of the construct of shyness. The literature reviewed would be better described as focusing, not on shyness, but rather on the much broader "umbrella" construct of *social withdrawal*—a general construct under which shyness and several other forms of solitude may be gathered. And to make matters somewhat more complicated, the construct of shyness comprises two different categories that are related to developmental onset—*fearful shyness* and *self-conscious shyness* (Buss 1986). The former type of shyness emerges in infancy and is associated with fear and social wariness. The latter emerges during the preschool period and coincides with the development of self-awareness and theory of mind (perspective taking). Significantly, Schmidt and Buss (2010) suggest that these forms of shyness are associated with different autonomic nervous system reactivity; fearful shyness with sympathetic nervous system reactivity and self-conscious shyness with parasympathetic nervous system reactivity. We do not believe that there exists a program of research that has empirically substantiated the possibility of gender differences in prevalence and correlates of these different types of shyness, especially during the childhood years. Given that this may be the case, we will focus our commentary on the broader construct of social withdrawal in youth whilst, at the same time, suggesting that the title of the Doey et al. paper is somewhat misleading.

Social Withdrawal

The broad-band, "umbrella" construct of social withdrawal includes such narrow-band phenomena as behavioral inhibition, anxious withdrawal, social reticence, preference for solitude, social avoidance, and shyness (see Rubin et al. 2009 for a relevant discussion). All narrow-band forms of withdrawal can be observed when individuals spend considerable time alone when in the company of others. We may distinguish between different *forms* of solitude from as early as the toddler years (Rubin et al. 1997). However, these different forms of solitude in the company of others may have different *functions* or underlying motivations (Coplan and Rubin 2010). For example, some individuals may lack a strong motivation to engage others in interaction whilst, at the same time, would not avoid interaction if approached by others. These individuals have been described as having a *preference for solitude*. Others may have strong competing motivations to both approach and avoid the company of others. This internalized approach-avoidance conflict may take the form of socially reticent behavior—solitude that is marked by observing others from afar, displaying anxious behaviors in the company of peers, and playing a submissive role when confronted by others. It is this group of children who appear to be most concerned about how their peers will judge and evaluate their behaviors. Other individuals may have strong approach and low avoidance motivations; however, their willingness to engage others is accompanied by an inability to regulate their negative (angry) emotions. Consequently, these individuals may be avoided by the peer group, and they are isolated from the peer group if that group believes that dysregulated social behavior is unacceptable. Descriptions of these varying types of solitude may be found in several recent reviews (Coplan and Rubin 2010; Rubin et al. 2009). It appears quite likely that the Doey et al. (2013) manuscript is an attempt to review the body of research on solitude for which the underlying cause may be social fearfulness or anxiety—or that group of children and adolescents who have competing high motivations to approach and avoid the social company of others.

The Developmental Course of Social Withdrawal

In the early 1990s, Rubin and colleagues proposed a theoretical model outlining developmental pathways in the etiology of social withdrawal and internalizing problems (e.g., Rubin et al. 1991). This theoretical framework considered the relations between the child's biologically driven dispositional characteristics (e.g., emotion dysregulation; behavioral inhibition); parental socialization beliefs about, and responses to child behaviors and social interactions (or the lack thereof) that are viewed as deviating from culturally defined or within-group norms; the quality of interactions and relationships with extra-familial significant others (e.g., peers) who likewise viewed the child's behavior as deviating from the norm; and macro-systemic forces (e.g., culture; the peer group context; the experience of family stress). Transactional processes were postulated, describing the reciprocal and evolving relations over time; ultimately, the theoretical model suggested developmental trajectories and consequences for socially withdrawn children.

Since the original presentations of the conceptual model in which the developmental course of anxiously withdrawn behavior was described, researchers have provided data to support it (see Rubin et al. 2010; Rubin and Burgess 2002; Rubin et al. 2009, 1991, 1995). For example, emotion dysregulation, as assessed physiologically, predicts the display of behavioral inhibition (or the fear of novelty) during the toddler period (e.g., Fox et al. 2001). Parents, who view their inhibited children as particularly vulnerable have been shown to display (and report displaying) oversolicitous, intrusive, and controlling behaviors—perhaps with the aim of reducing their young children's fear of novel social situations (e.g., Hastings and Rubin 1999). This combination of behavioral inhibition, emotion dysregulation, and overly controlling parenting predicts socially reticent and anxiously withdrawn behavior in the preschool and kindergarten peer group (e.g., Eisenberg et al. 1998; Rubin et al. 1997). Perhaps, as a function of their social

wariness and experience of parental overcontrol, anxiously withdrawn children fail to develop age appropriate social-cognitive and social skills.

These skills, ostensibly, are products of opportunities to explore the social environment, experience exposure to different perspectives, and be involved in situations that require the productive resolution of interpersonal problems (e.g., Bohlin et al. 2005 [Sweden]; Stewart and Rubin 1995). This resulting lack of social skills in anxious withdrawn children is associated with, and predictive of peer rejection, exclusion, and victimization during the elementary and middle school years (Gazelle and Druhen 2009; Gazelle and Ladd 2003; Rubin et al. 1984). This seems especially the case for those socially reticent children whose parents continue to be overly controlling (e.g., Hane et al. 2008). Eventually, these anxiously withdrawn, overly controlled, peer-rejected/excluded/victimized children develop intrapersonal thoughts and feelings of loneliness, negative self-regard, social anxiety, depression, and rejection sensitivity (e.g., Gullone et al. 2006; Ladd 2006; Lewis-Morrarty et al. 2012). Significantly, however, the developmental stability of anxiously withdrawn, reticent behavior may be disrupted if parents begin to display supportive behaviors, the parent–child relationship becomes secure, and if close and supportive friendships are formed and maintained (Booth-LaForce et al. 2012; Oh et al. 2008).

Whether or not this developmental scenario varies for boys and girls is the central question raised by Doey et al. (2013). It is an important question that appears to have its underpinnings in longitudinal research reports that shy boys are more likely than shy girls to have long-term difficulties in their social, academic, and professional lives as adults (e.g., Asendorpf et al. 2008 [Germany]; Caspi et al. 1988). Throughout the remainder of this commentary, we consider this central question in greater detail.

Gender Differences in Social Withdrawal

Significantly, the Doey et al. (2013) review is hardly the first time researchers have suggested that there are gender differences in the ways in which social withdrawal is responded to by parents and peers; and likewise, it is not a novel suggestion that the correlates and consequences of withdrawal are different for males and females (e.g., Stevenson-Hinde and Glover 1996 [England]). In Rubin and colleagues' original descriptions of the transactional model vis-à-vis the developmental course of social withdrawal, and in their reviews of relevant research that supported the model, it was suggested that gender was among the child's individual characteristics considered to be of especial significance (e.g., Rubin et al. 2009).

Given the extant data and a consideration of relevant constructs that characterized given cultures (e.g., individualism/collectivism; power distance; uncertainty avoidance; masculinity/femininity; Hofstede 1980) and local groups, it was suggested that anxiously withdrawn or socially reticent males would fare more poorly both intra- and interpersonally than would females. This suggestion drew from reviews of cultural norms and gender stereotypes indicating that in Western societies (especially in the USA and Canada), the dimensions of masculinity and individualism are higher than in Eastern countries where collectivism and uncertainty avoidance are more predominant (Doey et al. 2013). Put succinctly, in North America and Western Europe (where much of the research on social withdrawal has been carried out), it is expected that individuals should strive to be assertive, expressive, competitive, and self-reliant (Hofstede 1980). Researchers have consistently shown that in such Western countries as Argentina, Canada, Greece, Italy, the Netherlands, and the United States (see Doey et al. 2013 for relevant references), socially wary and withdrawn children who do not conform to cultural norms of expressivity and assertiveness, are largely rejected by their peers.

Relatedly, the gender stereotyping literature has suggested that males in Western cultures (i.e., U.S., Canada, Western Europe, Australia, and New Zealand) should more strongly adhere to the cultural ethos of masculinity and individualism than females, and that males are socialized to be more agentic (power assertive and controlling) and females more communal (caring, nurturant, sympathetic) in their personal attributes (Eagly and Wood 1999; Feingold 1994; Gebauer et al. 2013 [Multi-national sample]). Given this literature on gender stereotypes, it stands to reason that dispositionally anxious, withdrawn young *boys* would be responded to by parents in ways that they would hope would move them off a developmental pathway that may cause them difficulty; also, it would seem likely that within cultures that reinforce assertive, out-going, competitive behavior, peers would view socially anxious and reticent males as "easy marks" (Salmivalli and Peets 2009) and would, thereby both victimize and exclude them within the relevant social group (i.e., classroom, grade, school, extra-curricular activity, etc.).

In their review, Doey et al. (2013), argue that the data, by-and-large support the suggestion that socially anxious and reticent males are more likely than their female age-mates to (a) be responded to more negatively by parents and peers, and (b) suffer from more intrapersonal difficulties. We respond to their claims below. Importantly, our response includes existing empirical and theoretical work as well as newly analyzed data from *The Friendship Project*, a longitudinal research effort that has "followed" a representative sample of U.S. children from 5th through 12th grade. Our analyses focus on the data collected during late childhood (5th and 6th grades) and early adolescence (8th and 9th grades).

Prevalence

Over 90 % of people report being shy at some point in their life, making situational shyness a nearly universal

phenomenon (Zimbardo 1977). This percentage clearly includes people who are not fearfully shy and anxiously withdrawn. Depending on the measures and methods used, estimates of the prevalence of dispositionally inhibited children vary. Kagan and colleagues identified approximately 15 % of their toddler samples as inhibited (e.g., Kagan et al. 1988). Kagan (1994) has since suggested that 10–15 % of children and adults are temperamentally inhibited. Using a peer nomination procedure, Rubin and colleagues identified approximately 20 % of their 5th grade sample as anxiously withdrawn based on withdrawal scores in the top third and aggression scores in the bottom half of their large community sample (Rubin et al. 2006). Combining different measurements of social withdrawal and drawing from different populations, researchers have identified approximately 10 % to 25 % of their participants as anxiously withdrawn or reticent (Booth-LaForce and Oxford 2008; Coplan et al. 2001; Ladd and Burgess 1999; Rubin et al. 2006).

With reference to gender differences in the *prevalence* of social withdrawal, howsoever measured, if it is the case that Western cultural expectations lead to socialization efforts that will "produce" conformity to societal norms, one might expect that girls would become more shy or withdrawn over time than boys. Doey et al. (2013) cited numerous studies suggesting non-significant gender differences in the prevalence of shy or socially withdrawn behavior during the early and mid-childhood years. To add support to this conclusion, we can provide several additional citations for observations of different samples of toddler, preschool- and kindergarten-age children (Hastings and Rubin 1999; Nelson et al. 2005; Rubin 1982; Rubin et al. 1999).

There is some evidence to indicate that gender differences in the prevalence of social withdrawal do begin to emerge in late childhood and early adolescence (reviewed in Doey et al. 2013). The authors suggest that these emerging gender differences may be the result of reporting biases. While the possibility of a reporting bias is a frequent concern in research, there is a strong case to be made against this being a major driver of the adolescent gender difference in reported levels of shyness. Doey et al. cite research from multiple informants (parents, teachers, and peers) and across different countries (Norway, Great Britain, Canada, the Netherlands, and U.S.) in which girls were found to be shier and more inhibited than boys beginning in late childhood and early adolescence.

To examine whether gender differences in social withdrawal increased from the late childhood through the adolescent years, we conducted several new statistical analyses of data collected through *The Friendship Project.* These data were collected longitudinally from a large, ethnically and racially diverse, community sample of 5th, 6th, 8th, and 9th grade youth living in the Greater Washington, DC area (see Booth-LaForce et al. 2012; Oh et al. 2008 for descriptions of the sample). Using the *Child Behavior Checklist* (*CBCL*; Achenbach 1991), we found that in the 5th, 6th, 8th, and 9th grades, mothers did *not* report that girls were more withdrawn than boys. In the 8th and 9th grades, we did *not* find gender differences in extent to which withdrawal was self-reported by young adolescents on either the *Youth Self-Report* (Achenbach and Rescorla 2001) or a self-report index of introversion (*The Big 5 Trait Taxonomy*, John and Srivastava 1999). Thus, in a diverse sample of youth ranging in age from approximately 10.5-to-14.5 years, gender differences in the *prevalence* of social withdrawal, as assessed by multiple measures of the phenomenon, did not appear to increase with age.

Importantly, there have been studies indicating that the relation between early shy-withdrawn behavior and later reports of shyness is more *stable* for females than males (Eisenberg et al. 1998; Pihlakoski et al. 2006 [Finland]). Newly analyzed data from our *Friendship* Project generally support these findings. For example, anxious withdrawal was assessed by peer nominations (the *Extended Class Play*; e.g., Rubin et al. 2006) in the 5th and 6th grades during both the fall and spring semesters (see Oh et al. 2008). For 5th grade males and females, fall-to-spring stability was high and equally stable. However, in the 6th grade, the fall-to-spring correlation for boys was $r=.67$, $p<.001$; for girls it was $r=.82$, $p<.001$. Although stability was high for both genders, it was significantly greater for females than males, $z=5.39$, $p<.001$.

Given that these particular data were also gathered longitudinally, we also examined the stability of anxious withdrawal from the spring semester of 5th grade to the spring semester of 6th grade after the participants had made the transition from elementary-to-middle school. For males, the correlation was $r=.42$, $p<.001$; for females it was $r=.61$, $p<.001$. Anxious withdrawal was significantly more stable from elementary-to-middle school for girls compared to boys, $z=2.89$, $p=.004$. Lastly, we examined the stability of peer nominated anxious withdrawal across the entire middle school period (Grade 6 to 8). For males, the correlation between 6th and 8th grade anxious withdrawal was $r=.52$, $p<.001$; for females it was $r=.76$, $p<.001$. Anxious withdrawal was significantly more stable from 6th grade to 8th grade for girls compared to boys, $z=4.60$, $p<.001$. Interestingly, the stability of anxious withdrawal increased over time for both girls and boys; these data suggest that as youth become increasingly familiar with each other over time (that is, as they spend more time with each other within the confines of the same school), their reputations among peers become increasingly entrenched.

To summarize then, our own data did not support the suggestion that gender differences regarding the *prevalence* of socially withdrawn behavior would increase from late childhood into adolescence. However, the stability data did support the notion that anxious withdrawal, as perceived by peers, is more stable for females than males during the transition from late childhood into adolescence. Social norms may

therefore be important to consider when examining gender differences in social withdrawal.

Gender Differences in Parent and Peer Correlates of Social Withdrawal

Social withdrawal is often considered within the context of parent (e.g., Stevenson-Hinde and Glover 1996 [England]) and peer (e.g., Rubin et al. 2006) interactions. As Doey et al. (2013) point out, these significant relationships in a child's social life may exacerbate or mitigate the effects of being socially withdrawn. As important socializing agents, parents and peers likely take on additional relevance when considering the cultural gender norms related to the expression of anxiously withdrawn behaviors. If cultural norms are the source of anxiously withdrawn boys' putative struggles, there should be evidence of increased negativity from those socializing agents who are communicating to the child that which is, or is not acceptable behavior. According to Doey et al., these negative reactions compound and lead to more severe consequences for withdrawn boys than withdrawn girls.

Parenting

Studies supporting the notion that anxiously withdrawn boys are met with more negative parenting and peer experiences were cited throughout the Doey et al. (2013) manuscript (and are also discussed, at length, in Rubin et al. 2009). Briefly, it has been argued that anxiously withdrawn boys are faced with stronger, more negative reactions from parents than are anxiously withdrawn girls (e.g., Coplan et al. 2004; Stevenson-Hinde and Glover 1996 [England]). MacDonald and Parke (1984) reported that the parents of socially withdrawn preschoolers were less spontaneous, playful, and affectively positive during parent–child play than were the parents of more sociable children. During father-son interactions, they found that *boys* perceived by teachers as socially withdrawn, hesitant with peers, and as spectators during social activities had fathers who were highly directive and less engaging and physically playful. The findings were less clear-cut for socially withdrawn daughters.

Importantly, much of the extant work in which parenting practices have been associated with indices of social withdrawal have focused on samples of young children. In the *Friendship Project*, we examined whether mothers' perceptions of their children as socially withdrawn (on the CBCL, Achenbach 1991) were associated with mothers' and fathers' reported parenting styles vis-à-vis the target child. Two general parenting styles were assessed by the *Child Rearing Practices Report* (CRPR, Rickel and Biasatti 1982) – restrictiveness and nurturance. Examining the data separately by age (Grades 5, 6, 8, and 9) and gender, we failed to find any significant relations between parental reports of *restrictiveness* and their perceptions of their child as socially withdrawn. However, gender differences were found for maternally and paternally reported *nurturance*. To begin with, maternal perceptions of their *daughters'* social withdrawal was unrelated to mothers' and fathers' reported nurturance in all grades. Also, maternal perceptions of their *sons'* social withdrawal were non-significantly associated with mothers' and fathers' reported nurturance in Grades 5 and 6. In grades 8 and 9, however, maternal perceptions of their *sons'* withdrawal were negatively associated with *maternally* reported nurturance (Grade 8: $r=-.28$, $p<.001$; Grade 9: $r=-.20$, $p=.01$). In grade 8, there was a trend in the relation between maternal perceptions of child withdrawal and paternally reported nurturance, $r=-.15$, $p<.07$. In the 9th grade, the relation between *sons'* withdrawal and *paternal* nurturance was significant, $r=-.27$, $p=.001$. Thus, from the last year of elementary school through the first year of high school, the relations between parental perceptions of child withdrawal and their reports of nurturance became increasingly *negative* for both mothers and fathers. It may well have been that had the fathers completed the CBCL, the correlations between withdrawal and both paternal restrictiveness and nurturance would have been higher.

Peers

Doey et al. (2013) also suggested that socially withdrawn boys are more likely than their female counterparts to be perceived and responded to negatively by peers (e.g., Coplan et al. 2004, 2008; Gazelle and Ladd 2003; Nelson et al. 2005). It is important to note that there have been numerous studies that have failed to find gender differences in reactions to, and outcomes of shy and withdrawn behaviors (e.g., Rubin et al. 2006). Again, many of these findings derived from studies of young, elementary school-age children. In the *Friendship Project*, we examined whether peer nominated anxious withdrawal in the fall and spring semesters of the 5th and 6th grades were significantly associated with indices of peer exclusion and victimization (*Extended Class Play*, Rubin et al. 2006). In a nutshell, within 5th grade, and during both semesters, anxious withdrawal was associated significantly with peer exclusion and victimization for both boys and girls (rs ranged from .32 to .47, all $p<.001$). However, the contemporaneous relation between peer nominated anxious withdrawal and peer exclusion and victimization was significantly stronger for boys than girls at time 1, $z=2.37$, $p=.01$, but not at time 2, $z=1.73$, $p=.08$.

Again, within 6th grade, and during both semesters, anxious withdrawal was associated significantly with peer exclusion and victimization for both boys and girls (rs ranged from .32 to .50, all $p<.001$). Also, the contemporaneous relation between peer nominated anxious withdrawal and peer exclusion and victimization was significantly stronger for boys than

girls at time 2, $z=3.39$, $p<.001$, but not at time 1, $z=0.79$, p = ns.

In summary, our data were entirely consistent with the suggestion that peers' views of given individuals as being anxiously withdrawn are associated with class- (5th grade) and grade-mates' (6th grade) exclusion and victimization of these individuals. And when gender differences were found in the magnitude of the relations between anxious withdrawal and peer exclusion/victimization, they "favored" males; that is, anxiously withdrawn 10–12 year-old males were more likely than their female age-mates to be excluded and victimized by peers.

Gender Differences in the Intrapersonal Correlates of Social Withdrawal

Consistently facing stronger negative reactions from parents and peers may lead shy boys to develop less positive self-views over time, creating a more powerful perpetuating cycle of compounding negative effects. Doey et al. (2013) have argued that anxiously withdrawn boys may have to grapple with intrapersonal difficulties as well as the negative effects of violating gender norms in their social interactions. In support of their argument, they cited several studies indicating that withdrawn males were more likely than withdrawn females to experience internalizing problems (e.g., Coplan and Weeks 2009; Eisenberg et al. 1998; Rubin et al. 1993). Importantly, several of the studies noted as providing evidence for this argument had only a tangential relation with the direct assessment of social withdrawal. For example, Colder et al. (2002) found a relation between high fearfulness and low activity level and measures of internalized stress. Had they instead examined the interaction between direct assessments of *social* fearfulness (shyness) and emotional reactivity and regulation (e.g., Eisenberg et al. 1998), one might consider this particular study as supportive of their argument. Doey et al. also cited Morison and Masten's (1991) longitudinal study as providing evidence that withdrawal predicts negative self-esteem for males, but not females. Again, the construct of social withdrawal was not assessed in this particular study. Long ago, Rubin et al. (1989) noted that the "Sensitivity/Isolation" factor on the *Revised Class Play* developed by Masten and colleagues (Masten et al. 1985) confused the constructs of *withdrawal from the peer group* (shyness) and *isolation by the peer group* (rejection/exclusion). In more recent years, researchers have avoided confusing these constructs in their assessment of anxious withdrawal (see Rubin et al. 2009 for a relevant review). The bottom line is that the evidence for gender differences in the associations between indices of social withdrawal and intrapersonal difficulties is minimal, at best. Indeed, Doey et al. cited studies that ran counter to their premise (e.g., Schwartz et al. 1999).

Again, we turn to *The Friendship Project* to examine relations between indices of anxious withdrawal and intrapersonal difficulties among youth. We begin with the relations between peer assessed (*ECP*) anxious withdrawal and self-perceptions of one's social skills and interpersonal relationships (Harter 1982). In the 5th and 8th grades, significant associations were found for both boys and girls (rs ranged from −.20 to −.39); however, gender differences in the magnitudes of these relations were non-significant. In the 6th grade, the relation between peer assessed anxious withdrawal and self-perceived social skills and relationships was significant only for girls, $r=-.36$, $p<.001$. And finally, we found that *ECP* anxious withdrawal predicted 8th grade self-perceived social skills and relationships for both boys, $r=-.26$, $p=.006$, and girls, $r=-.36$, $p<.001$. There was not a statistically significant difference in the magnitude of these latter correlations.

Turning to another index of intrapersonal difficulty, we examined the relations between 6th and 8th grade peer assessed (*ECP*) anxious withdrawal and self-reported anxiety as measured on the *Youth Self Report* (*YSR*) and the *Multidimensional Anxiety Scale for Children* (*MASC*; March 1999), and self-reported depression on the *Child Depression Inventory* (*CDI*, Kovacs 1992). The two latter measures were only available in the 8th grade. No significant contemporaneous correlations were found within grade 8. However, 6th grade peer assessed anxious withdrawal (*ECP*) did predict 8th grade anxiety (*MASC*), but only for girls, $r=.19$, $p=.03$.

Finally, we examined the contemporaneous relations between *self*-assessed withdrawal (YSR) and anxious/depressed mood (*YSR*) and anxiety (*MASC*) in the 8th and 9th grades. The relations between these indices were all significant for boys and girls in both grades (rs ranged from .33 to .63, all $p<.001$, depending on the specific index of self-reported internalizing difficulty). There were no gender differences in the magnitude of the various correlations in grades 8 and 9. These findings suggest that in order for a psychological vulnerability for internalizing problems to be associated with withdrawal, the child may have to perceive that he or she is socially withdrawn relative to others. Furthermore, the relations between these constructs appear to "favor" females, such that there is a stronger relation between anxious withdrawal and internalizing problems among girls than boys.

Summary and New Directions

In this commentary, we have examined the strength of Doey et al.'s (2013) arguments that gender differences may exist in the prevalence, correlates, and consequences of what they refer to as "shyness" during the years of childhood and beyond. We began by suggesting that their review was not limited to the construct of shyness, but rather, it included such

constructs as behavioral inhibition, social reticence, and anxious withdrawal. As we reviewed each of their arguments vis-à-vis gender differences, we provided new information derived from the *Friendship Project*, a longitudinal study of anxious withdrawal in which youth were "followed" from elementary school, across the transition to middle school, and thereafter into the first year of high school. In so doing, we either offered support or evidence that contradicted claims for gender differences in the prevalence, correlates, and consequences of anxious withdrawal. We turn now to a number of issues that we think may be relevant to the Doey et al. discussion; issues that may be addressed in future work on the topic of their review.

Contextual Factors

Culture is a macro-level factor, likely impacting many aspects of a child's development; thus, it clearly warranted the careful consideration provided by Doey et al. (2013). However, there are other contextual factors that require attention when considering developmental processes and trajectories. Indeed, examining broad cultural differences in outcomes associated with shyness and withdrawal may mask some of the heterogeneity found within cultures at the level of the child's or adolescent's immediate peer group.

In an interesting demonstration of the importance of the immediate social group's norms, Stormshak and colleagues used multilevel modeling to characterize 134 different 1st grade classrooms' norms for the demonstration of socially withdrawn behavior (Stormshak et al. 1999). The prevalence of withdrawn children in a particular social milieu was taken as an indicator for how normative the behavior was within each classroom. Interestingly, in classrooms wherein social withdrawal was of relatively high frequency, non-withdrawn girls were more highly accepted by their peers than withdrawn girls. In contrast, withdrawn boys were more highly accepted by their peers in these classrooms than non-withdrawn boys. Thus, when the immediate group's (the classroom) norm involved the greater display of withdrawn behavior, withdrawn boys appeared to fare better in the peer group; this was not the case for girls. These findings dove-tail nicely with research indicating that peers are more severe in their reactions to boys' than girls' violations of social norms and stereotypes (e.g., Fagot 1977, 1984; Moller et al. 1992).

In a study similar to that of Stormshak et al. (1999), Chang (2004) used multilevel modeling to determine the relations between gender norms for withdrawal in a classroom and peer acceptance of withdrawn boys and girls. The study was conducted in 82 different classrooms of Chinese adolescents. When girls demonstrated higher levels of withdrawal in a classroom than boys, withdrawn boys were not as well-accepted as withdrawn girls. These findings indicate not only that the overall norms within a given group determine the acceptability of withdrawal differently for boys and girls, but also that the salience of gender norms for withdrawal within the group is an important factor to consider. Of course, more immediate group norms are likely influenced by the broader cultural norms for boys' and girls' behaviors. Taken together, these studies demonstrate that behavioral norms at the immediate group level (e.g., the classroom), and the salience of gender norms in particular, are important social contextual factors to consider when examining gender differences in the correlates of social withdrawal.

Group Acceptance

As noted in this commentary and in Doey et al. (2013), withdrawal is generally associated with peer rejection and victimization. Importantly, most shy and withdrawn children do successfully develop mutual friendships despite being victimized and excluded by the group at large (Rubin et al. 2006). *Group* rejection may be more relevant for males than females. Researchers have noted that males appear to derive their social needs and feelings of self-worth from social *groups*, whereas females tend to derive their social needs and self-worth from interpersonal, dyadic relationships (Baumeister 2005). Empirical work has demonstrated that when females interact in groups, it is often with a goal of developing close, interpersonal, dyadic relationships (Seeley et al. 2003); on the other hand, males appear to value relationships as a means to increase social standing within the group at large (Kwang et al. 2013). Researchers have also demonstrated that men and women process social information in ways that suggest their proposed preferences for group and dyadic social structures respectively. For example, Markovits et al. (2006 [England]) asked participants to read different diary entries depicting dyadic- and group-oriented activities. Women were able to respond more rapidly to questions about dyads, whereas men responded more quickly to questions about groups.

If one accepts the notion that males are more likely to seek acceptance at the group rather than the dyadic level, then the proposed roles that cultural norms play in the link between negative outcomes and social withdrawal could be adjusted slightly. It may be that being rejected by the peer group results in greater negative psychological consequences for socially withdrawn males. However, as noted above, social withdrawal is associated with group rejection, exclusion, and victimization, but not with an inability to form mutual friendships (e.g., Rubin et al. 2006). Thus, anxiously withdrawn boys, deriving their intrapersonal social and emotional well-being from their levels of group acceptance, may suffer worse psychological outcomes when their withdrawal is accompanied by group rejection, exclusion, and victimization. Anxiously withdrawn girls who derive many of their social and emotional needs from their close dyadic relationships (friendships) may be less

negatively affected by group rejection and exclusion if, at the same time, they are involved in rich, supportive dyadic relationships. Of course, this is a testable hypothesis that may be of interest to researchers in the future.

Biological Factors

Understanding the biological underpinnings of behavioral inhibition and socially reticent behavior has become increasingly possible given the development of new technologies. Various biological measures have been used to provide a clearer picture of how it is that inhibited and reticent children react physiologically when they are exposed to emotionally arousing stimulation. As noted by Doey et al. (2013) and many others (e.g., Fox et al. 2001; Gazelle and Druhen 2009), researchers have examined heart rate (Partridge 2003), neurological functioning (Fox et al. 1995), and salivary cortisol (Nachmias et al. 1996) as indices of stress reactivity and regulation that may be associated with the behavioral expression of inhibition and/or socially reticent behavior. One area that remains relatively unexplored in the literature, and is of special concern when considering gender differences, is the possible role that sex hormones (e.g., testosterone) may play in influencing the developmental course of social withdrawal.

Researchers have suggested that testosterone levels are both important precursors to, and outcomes of, particular forms of social behavior (see Eisenegger et al. 2011; Flinn et al. 2012 for reviews). Testosterone is also important to consider in the context of the current commentary both for its links to aggressive behavior (e.g., Dabbs and Morris 1990) as well as its potential role in interrupting neural pathways involved in connecting emotional responses with risk and threat assessment (e.g., Miskovic and Schmidt 2012). Testosterone is also associated with muscle development, the display of dominant behaviors, and more appetitive motivations in general (Nelson 2011).

Differing levels of testosterone may help explain why boys are more likely to engage in aggressive rather than passive strategies when faced with peer difficulties (Dodge and Feldman 1990). The potential of displaying relatively high frequencies of both aggressive and withdrawn behaviors may place boys at increased risk for negative social interactions. For example, when children are rated as both highly aggressive and withdrawn, they tend to face increased peer difficulties and have greater difficulty developing mutual friendships as they transition from pre-school to early elementary school (Ladd and Burgess 1999). In this same study, 71 % of the children identified as highly aggressive and withdrawn were boys. Having higher levels of testosterone (relative to girls) may predispose boys to react more aggressively to social stimuli; this may provide yet another pathway for increased peer difficulties among socially withdrawn boys.

In addition to being linked with aggressive and dominant behaviors, testosterone is associated with approach motivations more generally. For example, men with clinically low levels of testosterone are more apathetic and less motivated (Tostain and Blanc 2008). Along these lines, researchers have demonstrated that mice injected with testosterone display fewer anxious behaviors in an elevated plus maze (Aikey et al. 2002). More recent studies examining regional brain activity have uncovered an important role for testosterone in reducing social anxiety in human participants (see Miskovic and Schmidt 2012 for a review). Several researchers have specifically examined delta-beta coupling, which provides a measure of coinciding activity in both cortical and subcortical regions of the brain. When negative emotions (e.g., fear and anxiety) become more salient, delta-beta coupling should be higher as both the amygdala (subcortical) and areas of the frontal cortex (cortical) are involved when actively processing the emotion (van Honk et al. 2010). Interestingly, testosterone appears to reduce this coupling. This is true of both females who have been administered testosterone (Schutter and van Honk 2004 [Netherlands]) as well as males who have naturally occurring high levels of testosterone (Miskovic and Schmidt 2009). Thus, it may be that some anxiously withdrawn boys have lower levels of testosterone than non-withdrawn boys, leading to motivational decrements as well as an increased sensitivity to anxiety-inducing stimuli.

Additional Factors to Consider

There exists a myriad of additional factors that could contribute to the conclusions drawn by Doey et al. (2013) regarding gender differences in the correlates and consequences of social withdrawal. For example, as early as 6 months, boys demonstrate greater difficulty than girls at regulating their emotions (Weinberg et al. 1999). At age 2 years, male toddlers more frequently initiate conflicts with peers than do their female counterparts (Rubin et al. 1998). By ages 3 and 4 years, females tend to outperform males at tasks that require inhibitory control and theory of mind (Carlson and Moses 2001). Controlling for verbal ability, Bosacki and Astington (1999) reported similar gender differences in theory of mind task performance among preadolescents. Hyperactivity is also more prevalent in boys in general, and high levels of hyperactivity combined with high levels shyness have been associated with lower levels of peer acceptance (Rydell et al. 2009 [Sweden]).

These are just a few examples of important differences between boys and girls that may affect their socioemotional development and peer relationships. Examining the ways in which withdrawn boys may differ from withdrawn girls on critical social skills such as theory of mind and emotion regulation may help identify important individual differences that can further shed light on whether (and why) researchers

may find that social withdrawal affects boys more negatively than girls.

Conclusion

Doey et al. (2013) have provided a compelling case for focusing on gender differences in the prevalence, correlates, and consequences of social withdrawal in childhood. In our commentary, we have suggested that firm conclusions about the veracity of such gender differences do not rest on a strong empirical base. We have suggested additional factors to consider if one is to move their premises forward. Indeed, to examine the developmental course of anxious withdrawal, it would behoove the researcher to consider longitudinal, transactional models in which multiple factors (including gender, physiology, neural activity, family stress, parenting and parent–child relationships, peer group and dyadic relationships, social cognition, culture, and context) are examined as they conspire to predict psychosocial outcomes.

Acknowledgments The preparation of this manuscript was supported by National Institute of Mental Health grant #MH58116 to Kenneth H. Rubin.

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