

CHARACTERISTICS OF SOCIALLY ANXIOUS CHILDREN'S PERCEIVED VERSUS
DESIRED FRIENDS AND AFFILIATES: LINKS WITH SOCIAL DISSATISFACTION

by

JOHN MCKIRAHAN

(Under the Direction of Michele Lease)

ABSTRACT

Few studies have investigated the importance of desired friendships for those experiencing social difficulties, and no study to date has investigated desired affiliates as a type of relationship distinct from desired friendships. The current study examined the perceived, as well as desired, friends and affiliates of shy-withdrawn children and if the characteristics of desired friends and affiliates predict social dissatisfaction. Specifically, we investigated if shy-withdrawn children choose friends and affiliates based on a 'homophily' effect or due to a 'leftover' effect. Shy-withdrawal was operationalized as a combination of peer-reported anxious-withdrawal and teacher-reported shy-anxiousness for the 488 fourth and fifth grade children comprising the sample. Peer-report was used to examine the social characteristics (anxious-withdrawal, likability, popularity) of participants' self-reported perceived and desired friends and affiliates. Participants self-reported their dyadic and network social dissatisfaction. Results indicated that although shy-withdrawal is associated with a desire for more friends and affiliates, any child who listed at least one desired friend or affiliate was more socially dissatisfied. Shy-withdrawn children did not desire relationships with similarly anxious children nor did they desire relationships with well-liked students or popular students. However, shy-withdrawal was

associated with having perceived friends characterized as anxious-withdrawn, especially for girls and those not of the majority-race. The relation between shy-withdrawal and social dissatisfaction was not moderated by the characteristics of desired friends and affiliates.

INDEX WORDS: Social Withdrawal, Friends, Affiliates, Social Dissatisfaction, Homophily

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DEDICATION

I would like to dedicate this dissertation to those who have supported me throughout my graduate school career, including my mother, father, sister, grandparents, and friends. I would also like to dedicate this dissertation to my graduate mentor and advisor, Dr. Lease, as she has helped and supported me, has been patient and understanding, and has been an incredible resource throughout my graduate school career.

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CHAPTER 1

LITERATURE REVIEW

Peer relations are voluntary, horizontal types of relationships that provide children with indirect and direct socialization experiences. Whether at the dyadic (e.g., friendship) or group level, children's interactions with peers have been shown to play an integral part in their social and emotional development, psychological adjustment, and overall well-being (Bagwell & Bukowski, 2018; Oberle et al., 2009; Rubin et al., 2015). Much of the research on peer relations has focused on the identification of difficulties children have, such as anxious-solitude or aggression, and how peer relation experiences may exacerbate or mitigate negative outcomes (i.e., risk and protective factors) (Parker et al., 2006). However, the link between peer relations and outcomes can be complex. For example, researchers have found that having a close friend can decrease loneliness and victimization for many children (Bagwell & Bukowski, 2018), but close friendships can also lead to an increase in loneliness and victimization if both friends display high levels of internalizing problems (Rubin et al., 2006).

One particularly important type of dyadic peer relation is friendship. Friendships have characteristics that distinguish them from other types of dyadic interactions: They are reciprocal, built on mutual affection, and exhibit such properties as trust, emotional aid, and support. (Bagwell & Bukowski, 2018; Rubin et al., 2015). Friendships play an important role in children's and adolescent's development, in fulfilling belongingness needs, and for psychological adjustment (Adler and Adler, 1996). They can also serve as protective factors. Laursen et al. (2007) investigated how friendships can act as a buffer against social isolation and

adjustment problems in early elementary school children. The researchers found that having a friend in first grade moderated the effects of social isolation and adjustment problems in second grade. Children who felt socially isolated and were poorly adjusted in the context of the broader peer group – but had a friend – were less likely to experience increases in maladjustment and/or social isolation over time than those without a friend. In another longitudinal study investigating links between friendlessness, adjustment, and internalizing problems over time, Troop-Gordon et al. (2019) found that not having a friend in third and fourth grade predicted higher levels of internalizing problems one year later compared to those who had a friend. Similarly, Rubin et al. (2006) found that shy/withdrawn children in fifth grade with best friends were viewed as more sociable by their peers than shy/withdrawn children without best friends. However, those same friendships were found to lead to more peer victimization. These findings build on the results from the studies by Laursen et al. (2007) and Troop-Gordon et al. (2019) and further show that having a friend does not guarantee positive effects. Other features of friendships, such as the quality of the relationship and characteristics of the friend, are just as important as having a friend.

Researchers identifying different levels of friendship quality have revealed that dyads with high friendship quality display more positive and fewer negative features, whereas the opposite has been found for dyads with low friendship quality. Hiatt et al. (2015) conducted two studies, the first of which aimed to identify different friendship categories adolescents belonged to as determined by friendship quality. The first study consisted of 230 same-sex adolescent best friend dyads who completed questionnaires on the characteristics of their friendship (e.g., social support, negativity) and on their self-perception of interpersonal competence (e.g., global self-worth, behavioral conduct). After conducting hierarchical cluster analyses, a four-cluster solution

containing High Quality, Low Quality, Moderate Discrepant (i.e., lower magnitude of differences between friends), and High Discrepant friendship groups was determined to be the best solution. The authors found that friendship groups in the High Quality cluster reported higher social support and lower negativity than any other friendship group. Conversely, friendship groups in the Low Quality cluster were found to have higher negativity and lower social support than the other friendship groups. In their second study, which utilized longitudinal data, Hiatt et al. (2015) were interested in not only replicating the structure of friendship groups but were also interested in the attributes of the members of the groups. Using a similarly sized sample of 242 same-sex adolescent best friend dyads, the authors successfully replicated the four-structure model from the first study. They also found that adolescents in the High Quality group reported greater self-worth and more behavioral competence than any other group. Together, both studies consistently revealed distinct groups of friendship quality along with positive outcomes (e.g., low negativity, high social support) for high quality friendships and negative outcomes (e.g., high negativity, low social support) for low quality friendships.

Turning from investigating group differences to individual differences has allowed researchers to focus on the specific processes and features of friendship quality and the relationship between friendship quality and social functioning. Friendship quality is often determined by the amount of positive and negative features within the friendship, such as self-disclosure, degree of companionship, supportiveness, and level of conflict (Bagwell & Bukowski, 2018; Parker & Asher, 1993). Parker and Asher (1993) published a seminal article in which they reported on their development of a scale to assess multiple facets of friendship quality, the Friendship Quality Questionnaire (FQQ). The FQQ includes subscales assessing conceptually important facets of friendship quality (e.g., validation and caring, conflict and

betrayal, companionship and recreation, help and guidance, intimate exchange, and conflict resolution). In the Parker and Asher study, the relation between the FQQ and social dissatisfaction and loneliness was examined for children with different levels of social acceptance. Using a large sample of 881 third through fifth grade students, the researchers found that low-accepted children reported poorer friendship quality: They reported less caring, validation, intimate disclosure, help and guidance, and more conflict resolution difficulty than average- and high-accepted children. In terms of best friendships, children who reported having best friends generally reported high friendship satisfaction with those relationships. With regard to the facets of friendship quality, the authors found that all six variables were strong negative predictors of loneliness, with conflict and betrayal being the only positive predictor of loneliness. Results from Parker and Asher's (1993) study paved the way for future researchers concerned with friendship quality and provided insights into the importance of friendship quality on children's loneliness and social dissatisfaction as well as peer acceptance. Studies such as this, as well as research conducted by Hiatt et al. (2015), would be beneficial for researchers investigating mechanisms and processes operational within high quality friendships, but much of the research on friendship quality has focused on the relation between low friendship quality and social-emotional difficulties.

Studies investigating the negative effect of low friendship quality in best friendships have found that, in general, low friendship quality is related to poor adjustment. The following studies identified best friends via peer nomination, either by asking the participants to nominate their best or closest friend. Zhang et al. (2014) investigated friendship quality and its association with loneliness in a sample of 509 third to sixth graders and their best friends. The authors found that loneliness was significantly and negatively associated with friendship quality for both boys and

girls. Zhang and colleagues also found that the effect of friendship quality on loneliness was mediated by self-perceived social competence. Their findings indicate that, for children, experiencing poor friendship quality might contribute to a feeling of negative social self-competence, which in turn can put the child at greater risk for loneliness. Another study investigated the role negative friendship quality plays in the development of relational aggression, risky behavior, and psychological adjustment within best friendships using a longitudinal design (Kamper & Ostrov, 2013). The sample size of the study was large (i.e., 776 adolescents), although the authors noted that the sample was not representative of the United States in terms of race (83.4% Caucasian) and income (i.e., higher income-to-needs ratio). The researchers found that negative friendship quality was positively associated with relational aggression, which, in turn, significantly predicted risky behavior. Negative friendship quality also significantly predicted an increase in depressive symptoms even after controlling for the effects of relational aggression on depressive symptoms. These studies, along with studies previously mentioned (e.g., Parker & Asher, 1993; Hiatt et al., 2015), provide evidence of the types of negative effects low friendship quality can have on children. Poor or low friendship quality, even in non-clinical samples, appears to be related to increases in internalizing and externalizing problems, examined both concurrently and across time.

Researchers investigating friendship quality in clinical (i.e., diagnosed) samples, including children with anxiety disorders (e.g., social anxiety disorder, generalized anxiety disorder), have found an overall enhanced negative impact of low friendship quality compared to low friendship quality among non-clinical samples. Baker and Hudson (2014) were the first to examine the friendship quality and social information processing (SIP) of clinically anxious children compared to a control sample. The total sample consisted of 60 children from ages 7 to

12: 16 children who were diagnosed with social phobia (i.e., using DSM-IV criteria, in use at the time of the study; American Psychiatric Association, 1994), 12 children who displayed anxious symptoms but did not meet criteria for a diagnosis, and 32 children included as nonclinical controls. The participants were asked to identify their very best friend via peer nomination, to complete a self-reported measure of friendship quality, and to respond to hypothetical vignettes to assess SIP stages (e.g., selective attention and processing, storage and retention; Crick & Dodge, 1994). Best friends also completed friendship quality questionnaires. Interestingly, friendship quality did not differ across the three groups, in contrast with previous findings that anxious children have lower friendship quality than non-anxious children (Rubin et al., 2006; Erath et al., 2007). Similar results were found in a subsequent study by Baker and Hudson (2015) with a sample of 75 children with social phobia, 41 with anxious symptoms, 50 nonclinical children, all between the ages of 7 and 13. However, results from this study showed that there was a significant difference in friendship quality between socially phobic children and the anxious, undiagnosed group but not between the social phobia group and nonclinical controls. That is, socially phobic dyads reported significantly lower friendship quality compared to only the undiagnosed anxious dyads and not the nonclinical control dyads. In both studies, the researchers suggest that the similarity in friendship quality between the target groups (i.e., control, social phobia, anxious symptoms) might be related to factors not studied, including the similarity of characteristics between friends (e.g., homophily).

It is evident that some children have friendships that are higher in negative features, leading to worse outcomes, than are other children's friendships. This is the case for children who display non-clinical symptoms of internalizing disorders (Parker & Asher, 1993; Hiatt et al., 2015; Zhang et al., 2014; Kamper & Ostrov, 2013) and clinical levels (Baker & Hudson, 2014;

Baker & Hudson, 2015). This has also been found for children who display clinical levels of externalizing symptoms (Ackermann et al., 2019). Given these findings, it is possible that children who display symptoms of clinical disorders and who have lower quality friendships are at a higher risk of increasing the severity of those symptoms and maladjustment and decreasing the likelihood of obtaining positive, skill-building friendship experiences need to support their development.

One such group of children at-risk of missing important socialization experiences needed to foster healthy friendship development are children who are socially withdrawn. The friendship quality of children who display anxious-withdrawn behavior has been found to be generally lower than children who are not anxiously-withdrawn. Specifically, anxious-withdrawn children are those who desire social interaction but are reticent to initiate interactions or engage with peers due to fear or anxiety engendered through social interaction (Rubin et al., 2009). Rubin et al. (2006) also reported that children who display anxious-withdrawn behavior and their friends perceive the friendship to be of lower quality than do non-anxious withdrawn children and their friends. More specifically, anxious-withdrawn children rated their friendships as having lower levels of conflict resolution and less intimate disclosure, fun and happiness. Further, Menzer et al. (2012) investigated gossip and its effect on friendship quality among anxious-withdrawn fifth and sixth graders. The authors focused on gossip because gossiping can function as a form of intimacy: Children who gossip with one another are generally 'close.' They found that less gossip between anxious-withdrawn children and their friends was associated with poorer friendship quality, whereas more gossip (moderate to high) had the opposite effect. Some data, however, has found that anxious-withdrawn children may experience higher friendship quality when friends with at least one child who is not anxious-withdrawn. In a study investigating self-

reported friendship quality of 58 friendship dyads with (n=29) and without at least one anxiously-withdrawn child, Schneider (1999) found dyads containing at least one anxiously-withdrawn child reported higher companionship than dyads with no member of the dyad being anxiously-withdrawn or both being anxiously-withdrawn. Interestingly, in dyads with only one anxiously-withdrawn child, the anxious-withdrawn child reported, overall, more closeness and more help from their friend than did the non-anxious-withdrawn child. Overall, these studies indicate that although anxious-withdrawn children are able to understand and make friends, the friendship rates are lower compared to non-anxious-withdrawn peers and their difficulty obtaining closeness within the relationship can affect and result in lower overall friendship quality.

Continued research on anxious-withdrawn children and their friendships is important. These children are at a greater risk for developing increased anxious symptomatology in the future; without friendships, their involvement in the types of social interactions necessary for healthy social-emotional development will likely be limited (Rubin et al., 2009; Frenkel et al., 2015). Even when they have friends, their friendship quality appears to be worse than other children's (Rubin et al., 2006). Given anxious-withdrawn children have friends similar to themselves, and experience poorer friendship quality than non-anxious-withdrawn children (Rubin et al., 2009; Kingery et al., 2010), researchers have focused on understanding the mechanisms underlying the quality of anxious-withdrawn children's friendships. This can help provide ways in which practitioners can identify those friendships and specific friendship qualities that are at most need of improvement, such as lack of closeness and increased conflict. If an anxious-withdrawn child is unhappy with the quality of their friendship, they may desire to be friends with someone else who they believe may offer more positive qualities. That is, the

characteristics of anxious-withdrawn children's friends may not be the characteristics they desire and, therefore, contribute to poor friendship quality.

CHAPTER 2

INTRODUCTION

Since its publication, Adler and Adler's ethnographic study, *Peer Power: Preadolescent Culture and Identity* (1998), has provided an important framework and reference point for researchers studying the organizational structure of elementary-age children's school-based peer groups. They reported that children affiliated in clusters arranged along a popularity hierarchy, which they identified as popular (approximately 30% of the 4th/5th grade population), wannabes (10%), middle friendship circles (50%), and isolates (10%). The distinction Adler and Adler made between "wannabes" and "isolates" helped distinguish between children who occupy different places in the popularity hierarchy and yet appear to share similarly low levels of self-worth and self-esteem. "Wannabes" are described as children who have friends but desire to be included in a more popular group, seeking inclusion and a sense of belonging by mimicking popular children's behaviors and performing distasteful tasks (e.g., ridiculing outsiders) to gain favor. "Isolates" are children who often desire friendships and social affiliations but do not attempt to join in for multiple reasons, such as fear of rejection. Whereas Adler and Adler reported that "wannabes" often had friends outside of their desired popular group, children in the "isolate" group were reportedly rejected by most and left with only other rejected children to befriend (e.g., "leftovers"; Rubin et al., 2006). "Isolates" have been described as being unable to affiliate or befriend children who they wish to befriend, which is an integral part of children's development of social identity and sense of self as a desirable social partner (Bukowski et al., 2018).

Lack of friendships and unsatisfactory social relations can contribute to internalizing (Fontain et al., 2009; Rubin et al., 2015) and adjustment problems (Rubin et al., 2018), which, in turn, can decrease opportunities for developing satisfactory social relationships in the future (Jacob et al., 2014; Ladd et al., 2011). This is especially true for children who display socially anxious behavior, such as those who desire to interact with peers but avoid doing so due to fear of negative evaluation or rejection (i.e., anxious-withdrawn; Kingery et al., 2010; Coplan & Armer, 2007) and/or those who are behaviorally inhibited (e.g., shy; Rubin et al., 2009). Studies have shown that children who display socially anxious behaviors and lack a friend report higher levels of internalizing problems over time compared to non-anxious children without friends (Ladd et al., 2011; Fontain et al., 2009). In terms of self-perception, Baartmans et al. (2019) found that children who display higher levels of social anxiety than their peers perceive their likability as significantly lower than their actual peer-rated likability. Rubin et al. (2006) also reported lower self-perceived friendship quality in the friendships of anxious-withdrawn children compared to other children's friendships. Taken together, these studies indicate that children with elevated levels of social anxiety are at an even higher risk for experiencing increased internalizing problems if they do not experience positive friendship experiences.

Despite their enhanced risk of not developing meaningful social ties within the peer group, studies have found socially anxious children tend to have at least one mutual, reciprocated friendship, although research on the rates and stabilities of those friendships has been inconsistent. For example, Ladd et al. (2011) compared the friendships and characteristics of children identified as exhibiting anxious-solitary behaviors (i.e., desire peer interaction but choose not to approach peers due to fear of negative evaluation or rejection) with unsociable (i.e., lack of approach and avoidance motives) and typically developing peers. Anxious-solitary

children were less accepted within the peer group than were their unsociable and typical peers; further, the number of friendships and network affiliates of anxious-solitary children was significantly below that of unsociable and typically developing children. Friends of anxious-solitary children were also found to be less accepted and more excluded than comparison children. In a study by Rubin and colleagues (2006), anxious-withdrawn children had the same number of stable friendships as non-anxious-withdrawn children, which contrasts with the findings of lower friendship stability from Ladd et al. (2011). However, the studies agree that the friendships of anxious-withdrawn children do not seem to be providing the same provisions that typically developing children enjoy. For instance, it is often observed that having at least one friend can buffer from exclusion/victimization (Bukowski et al., 2018). However, both the Ladd and Rubin studies found similar results: The friends of anxious-withdrawn children were more excluded and victimized by peers than were friends of non-anxious-solitary children; both studies also reported similar levels of anxious-withdrawn behavior. Thus, despite the presence of a friend, socially anxious children continued to have negative experiences in the peer group, suggesting that merely having a mutual friend is not enough – it also matters who the friends are and what they are like.

Whether the friend exacerbates the likelihood of being targeted by peers or their presence fails to decrease instances of victimization, socially anxious children might desire different friends. Desired friendships can be defined as friendships that children do not currently have but ones they would like to form in the future (Thomas & Bowker, 2012). In one of few studies investigating desired friendships, Thomas and Bowker (2012) examined the prevalence of desired friends, the characteristics of desired friends, and the levels of loneliness between young adolescents (mean age of 12.94) with and without desired friends. Results indicated that over

half of the 384 adolescents in their sample nominated a peer who they desired to be a friend, with girls being significantly more likely than boys to produce such a nomination. Similar to what has been found when children desire to affiliate, or hang-out with, popular peers (e.g., wannabes; Adler & Adler, 1998), adolescents who were nominated as desired friends were more popular and well-liked. Those nominated as desired friends were also more relationally and overtly aggressive, which are characteristics that have been associated with popularity (Rodkin et al., 2000). Results also indicated that girls who listed one or more desired friends were less popular and lonelier than adolescents who did not, mirroring results from studies investigating young adolescents' desired affiliates (e.g., Breslend et al., 2018). In a study conducted with adolescents (mean age of 14.2), Scholte et al. (2009) investigated desired friendships, with a focus on the friendships of victimized children. The authors found that victimized adolescents had the same number of desired friendships as non-victimized adolescents. They also found that those who chose victimized children as desired friends were less emotionally stable, lonelier, and had a lower self-esteem compared to other peers. In terms of reciprocal versus desired friendship differences, victimized adolescents' mutual (i.e., reciprocated) friends were more rejected and victimized than were their desired friends. Results from Scholte et al. (2009) and Thomas and Bowker (2012) reveal that for some groups of children, such as girls and children who are victimized, desiring a friend is associated with elevated levels of loneliness and peer rejection.

Children might desire different friends and affiliates to decrease internalizing distress and improve the quality of their social lives, such as children who are socially anxious. There are multiple reasons socially anxious children might desire a new friend, such as increasing their status (e.g., a "wannabe"), wanting to be more comfortable and satisfied with the friendship, such as with someone who has similar characteristics (e.g., homophily), or wanting to be friends

with someone who has valued and socially desirable characteristics (e.g., athletic, friendly). Children might also desire new friendships with the potential for higher friendship quality, especially if the quality of their existing friendships are poor. However, the fear of rejection and reticent behavior that socially anxious children display (Rubin et al., 2009) can serve as a risk factor for developing those desired friendships. Socially anxious children have been found to not perceive themselves as socially desirable or skilled (Baartmans et al., 2019), which may lead to them seeking out children who display similar behaviors and characteristics due to a reduced chance of getting rejected. However, it could also be that socially anxious children feel more comfortable with children who share the same characteristics and behaviors, such as similarity in negative feelings, lack of social skills, and predictability (Veenstra et al., 2018) and, thus, desire more friendships with others who are like them.

The distinction between why socially anxious children might desire new friends and affiliates remains unclear. This study aims to contribute to research regarding desired friendships and affiliates, specifically for socially anxious children, and how those desired relationships might relate to feelings of social dissatisfaction. First, socially anxious children might desire friends or affiliates who are popular (“wannabes”). They might desire to be friends with popular children as a means to increasing their own social status or because they view popular children as having the social power to buffer them from victimization and exclusion (McDonald & Asher, 2018). However, the desire to affiliate with children who are higher in popularity has been found to lead to increased relational victimization and peer rejection, at least for girls, if those girls were low on actual popularity (Breslend et al., 2018). Breslend et al. (2018) use the term “wannabe effect” to describe the intersection between a child’s popularity goals and their actual level of popularity. The authors concluded that if a child’s actual popularity is low and their

popularity goal is high, then they are more likely to experience outcomes that are more negative. Consequently, the greater the discrepancy between a socially anxious child's level of popularity and the desired friends' popularity, the more socially dissatisfied they might be.

On the other hand, if socially anxious children express a desire for friends, then they might desire friends who have similar characteristics. Specifically, children have a strong preference for affiliating with other children who are similar to them demographically (e.g., gender) and who have similar behaviors, beliefs, and attitudes (e.g., homophily) (Kandel, 1978; Laursen, 2017). Homophily exists both because children prefer and seek out children with similar characteristics (e.g., selection effect) and because children become more like those who they choose to spend time with (e.g., socialization effect) (Brechwald & Prinstein, 2011). Homophily has also been found for social status variables, such as popularity (Adler & Adler, 1998), as well as a range of externalizing and internalizing problem behaviors (Dijkstra et al., 2011; Rubin et al., 2018). Recently, however, researchers investigating desired peer affiliations have revealed that typically developing youth, in general, choose to affiliate with those who are more similar in status (i.e., popularity) over and above similarity in behaviors, such as aggression and prosociality (Dijkstra et al., 2010; Logis et al., 2013). As mentioned previously, socially anxious children tend to have friends with similar levels of anxious symptoms, which has been found to be related to negative outcomes, such as increased internalizing problems and victimization compared to children who have friends who are not anxious (Rubin et al., 2006; Ladd et al., 2011). In general, affiliating with similar others enhances trust and understanding, so it is plausible that socially anxious children prefer to affiliate with homophilous others if the relationship is more rewarding (Veenstra et al., 2018). Further, behavioral and conversational compatibility has also been evoked to explain homophily patterns in children's social ties, such

as gender segregation in children's networks (Martin et al., 2018), which might also affect anxious-withdrawn children's social ties.

Conversely, socially anxious children might befriend and hang out with other anxious children due to 'convenience' rather than choice. That is, they might have little choice but to befriend peers who are similarly excluded from the peer group (i.e., "leftovers"; Rubin et al., 2006; Oh et al., 2008; Rubin et al., 2018). By comparing desired with actual friends, it is possible to disentangle a 'true' homophily effect (i.e., preference for affiliating with similar others) from similarity in characteristics due to a "leftover" effect. Whereas socially anxious children might express limited desire for new friends or desire friends who are similarly anxious, it could also be that they desire friends and affiliates who display likeability or are popular ("wannabes"). Given that children who are rejected and victimized tend to desire to affiliate with popular peers (Breslend et al., 2018) and that anxious children are less accepted than non-anxious children (Bukowski et al., 2010; Ladd et al., 2011), the "wannabe effect" might be stronger for anxious than non-anxious children. Expressing a desire for more popular and socially desirable peers might signal increased social distress. As of now, the actual versus desired affiliations of anxious children, specifically, has not been investigated to our knowledge.

Current Study

The current study aims to build on findings reported by Thomas and Bowker (2012), Scholte et al. (2009), and Breslend et al. (2018) about the significance of having desired versus actual friends and affiliates. First, like Thomas and Bowker (2012), the current study examines whom the socially anxious child perceives and desires as a friend/affiliate. More specifically, the current study focuses on shy-withdrawn children. Thomas and Bowker (2012) examined young adolescents' desired friendships by directly asking, via a class roster and unlimited peer-

nomination procedure, who the adolescents would like to be friends with in the future as opposed to using a unilateral friendship nomination to indicate a desired friendship (Scholte et al., 2009). The distinction is important. Children who provide unilateral friendship nominations might (mis)perceive the person they nominated as an actual friend, which would contribute to an overestimate of desired friendships. Asking directly whom a child would want to be friends with, if given the choice, rather than inferring this from unilateral friend nominations, should provide a more accurate picture of desired friendships.

Second, the current study extends prior work investigating not only the actual and desired friendships of late elementary-aged shy-withdrawn children but also desired and actual affiliates ('hanging out' relations). It is important to consider desired affiliates in addition to friends. Socially anxious children typically have at least one friend (Rubin et al., 2006) but often are rejected or neglected by peers as a whole (Erath et al., 2007), which might suggest more social distress related to affiliations than friendships. Furthermore, anxious children's social goals might differ from non-anxious peers: They might desire different or more friends but not desire more or different affiliates (or vice versa). Because neither Scholte et al. (2009) nor Thomas and Bowker (2012) investigated shy-withdrawn children specifically, the current study is the first, to our knowledge, to directly investigate both desired friendships and affiliations of shy-withdrawn children.

The main objectives of the current study were to examine shy-withdrawn, late elementary-age children's actual versus desired friends and affiliates, their characteristics, and links with social dissatisfaction. First, we examined the number of friend and affiliate nominations listed, if that number differed between genders, and whether shy-withdrawal was related to making at least one desired friend/affiliate nomination. Next, we examined the desired

friendships of shy-withdrawn children; specifically, we examined the relation between shy-withdrawal and characteristics of desired friends and if that pattern is similar to or different from the characteristics of perceived friends. Based on the findings of Scholte et al. (2009) the current study aimed to answer the question of whether shy-withdrawn children will nominate similar numbers of desired friendships as non-shy-withdrawn children. Given anxious children typically have similarly anxious friends (Rubin et al., 2006; Ladd et al., 2011), we also sought to answer if socially shy-withdrawn children in the current sample have perceived friends with similar characteristics.

Because peers with whom one affiliates with might serve a different function than providing the intimacy and closeness of a friendship (McDonald and Asher, 2018; Bagwell & Bukowski, 2018), another goal of the current study was to investigate the perceived and desired peer group affiliations of shy-withdrawn children. Some research has indicated anxious-withdrawn children affiliate with other anxious-withdrawn children (Rubin et al., 2006). This affiliation can lead to increased anxious behavior and internalizing problems (Oh et al., 2008), although some research has suggested that affiliating with similarly anxious peers is associated with less internalizing distress (McKirahan et al., in press). However, it might be that these children desire to affiliate with more children and/or those with more socially desirable characteristics but are unable to. Shy-withdrawn children, who themselves are considered undesirable social partners, might only be able to affiliate with undesirable peers; that is, they might be able to choose partners only from the “pool of leftovers” (e.g., see Rubin et al., 2006). Affiliation is a type of relationship distinct from friendship (Rubin et al., 2015), and research has shown that children in general desire to affiliate with popular children (Dijkstra et al., 2010; Breslend et al., 2018). Thus, another question the current study examined is whether shy-

withdrawn children desire more affiliates than non-anxious children do, and, if so, whether or not they desire to affiliate with friends who have similar or different characteristics than their perceived affiliates.

It could be that shy-withdrawn children desire friends who are similarly anxious (homophily effect), but it is also plausible that they desire peers with more peer-valued characteristics (social desirability effect) or with higher levels of popularity ('wannabes'). We also explore the degree to which shy-withdrawn children's self-reported social dissatisfaction is connected to their nominations of dissimilar (e.g., socially desirable, more popular) and/or of similar (e.g., homophily) desired friends, especially as compared with their perceived friends. If shy-withdrawn children do not indicate a desire for more friends or desire friends similar to their perceived friends (i.e., similarly anxious), then lower levels of social dissatisfaction would support a 'homophily effect'. However, if they nominate peers who are dissimilar from their perceived friends as desired friends, then higher levels of social dissatisfaction would support a 'leftover effect'. Further, desiring to be friends with peers who are more popular and/or have more peer-valued characteristics would suggest 'wannabe' and/or 'social desirability' variants, respectively, of this 'leftover effect.'

Finally, a question the current study explored was if shy-withdrawn children would report higher levels of social dissatisfaction if they desire to affiliate with others who are similar or dissimilar to their perceived affiliates. Because previous studies have reported gender effects in terms of actual and desired friendships (Thomas & Bowker, 2012), this study will also investigate gender effects patterns for both desired friendships and affiliations.

Collectively, this study aims to contribute to our understanding of whether socially anxious children affiliate with similarly anxious children due to a 'leftover' effect (e.g., Rubin et

al., 2006) or due to selective affiliation ('homophily'). A 'homophily effect' suggests their social ties are built on a preference for similarity (Veenstra et al., 2018), whereas a 'leftover' effect suggests similarity with friends and/or affiliates is due to lack of choice (Rubin et al., 2006). This pattern of results might differ for friends versus affiliates, which, consequently, should suggest differing approaches for interventionists.

CHAPTER 3

METHOD

Participants

Fourth and fifth grade students from five rural elementary schools in the southeastern portion of the United States, and their teachers, participated in data collection in late spring of the school year. Teachers distributed parental consent forms for students to take home to their parents. After obtaining parental consent, assent was obtained from students before their participation in the study. The University of Georgia Institutional Review Board (IRB) approved all consent procedures, data collection procedures, and measures. The total sample contained 709 fourth and fifth graders. 51% of the total sample was female; 77% of the sample was Caucasian, 12% were African American, 7% were Hispanic, 1% were Asian, and 3% were Multiracial. Due to the low numbers of students in racial categories other than Caucasian, a *majority race* variable was created to index whether the child was in the majority race (majority race = 1) in their school or not (majority race = 2).

Consent and Data Collection Procedures

The reference group (i.e., relevant peer group) for the study consisted of all students within a grade level at a given elementary school. In all, students in eight grade level units were included in the study, with an overall parent consent rate of 70% (ranged from 63% to 79% across grade units). Of the 709 students in the reference group in the study, 495 (70%) were participants who received parental consent to participate in the study (now referred to as “participants” for the remainder of the study). Participants completed self-report and peer-

nomination measures and one of their teachers rated their social-emotional characteristics. Because the peer-nomination items used a free-recall procedure, all students in the child's grade level, including those who did not receive consent (N=214), could be nominated for peer-nomination items. Chi-square tests revealed that females (53%) were more likely to receive consent than were males (47%), $\chi^2(1, N=709) = 4.78, p < .05$. In terms of majority race, chi-square tests revealed that majority race students were more likely to receive consent (N=394) than were those in the non-majority race (N=101), $\chi^2(1, N=709) = 4.96, p < .05$. Of those who received consent, seven participants were dropped from analyses for missing data, with a final participant sample size of 488.

Peer-reported and self-reported measures were administered to all participants within a grade level unit at a school at the same time within the school cafeteria. One member of the research team read aloud survey items to the participants while two other members of the research team monitored and aided when needed. Data collection occurred during a one-hour session as part of a larger study on children's peer relations. Teachers completed rating forms for each consenting participant during this time. Small gifts were given to all children in participating grades, regardless of participation, as a token of appreciation for use of class time.

Measures

Friends and Affiliates

Participants were allowed to nominate anyone from their grade for peer nomination items, rather than restricting their choices to the classroom, as interactions between students throughout the school day took place across the grade level, per staff report. The current study made use of a free recall procedure in which participants were not provided a roster of peers' names. As stated previously, the use of free recall allowed participants to nominate all students

within their reference group, including students not participating in the study within the grade level. Free recall is advantageous because it allows participants to nominate nonparticipants and does not limit participants' cognitive perceptions of whom they affiliate with (Farmer et al., 2010). The use of free recall, as opposed to using a roster list of participating children (see Thomas & Bowker, 2012), also avoids roster and sequencing effects in which participants are more likely to nominate children who are higher in order on the roster (Poulin & Dishion, 2008). Peer nominations were unlimited: Participants were not instructed to limit or to provide a specific number of nominations. Unlimited nomination procedures allow for a more accurate representation of relations within the reference group and have been shown to have better psychometric and distributional properties than limited nomination procedures (Cillessen & Marks, 2017; Gommans & Cillessen, 2015).

Participants were instructed, "*Think about the students in your grade as you answer these questions.*" Participants provided nominations for their *perceived friends* (i.e., "Who are your very closest friends?"), their *desired friends* (i.e., "Who would you like to be friends with, if you could choose?"), who they *perceive as affiliates* (i.e., "Who do you hang out with the most?"), and who they *desire to affiliate* with (i.e., "Who would you hang out with the most, if you could choose?"). The term "closest friends" was used to restrict nominations to actual perceived friends and not just acquaintances because of the use of unlimited nominations. The current study did not investigate reciprocated friendships and affiliations as previous studies have (Thomas & Bowker, 2012; Scholte et al., 2009), but instead investigated perceived friendships and affiliations based on unilateral nominations. The characteristics of those who were perceived as friends and affiliates were the focus of the current study rather than actual friends, determined based on reciprocity and mutual affection. Second, *desired* friends and *desired* affiliates were

also based on unilateral nominations; these items were explicitly worded to indicate the child would be friends with or hang out with this peer if that was a choice available to them. As detailed below, the methodology of Thomas and Bowker (2012) was followed to compare the characteristics of perceived versus desired friends/affiliates.

Characteristics of Friends and Affiliates

Participants were instructed to nominate which peers within their grade level they perceived to be *anxious-withdrawn*. For this nomination item, a gateway procedure was used (Ladd et al., 2011) where the students were first instructed, “*Some kids don’t seem to play with other kids very much. Think about the kids in your grade who don’t seem to play with other kids.*” Items that described these reasons were listed, including the anxious-withdrawal item, “*Which ones look like they want to play with others or join in on a game, but seem shy or afraid?*” Students were also asked to nominate their most liked peers (“*Which children do you like to play with the most?*”) and the most popular students in their grade (“*Who are the most popular children in your grade at school?*”). Proportion scores were created for each student for each characteristic by grade unit. Perceived and desired friendship and affiliate characteristic means were calculated by summing the proportion scores (e.g., anxious-withdrawal) for each peer nominated within the category (e.g., desired affiliate) and taking the mean of that sum.

Shy-Withdrawal

Two separate measures were used to create a “*shy-withdrawal*” composite score to capture a multi-informant perspective and the multicomponent nature of social anxiety as observed in the peer context (i.e., shy temperament, withdrawn behavior, anxious emotion). The first of these was peer-nominated *anxious withdrawal*, as discussed above.

The second measure came from teacher ratings. Their homeroom teachers completed the Interpersonal-Competence Scale (ICS-T; Cairns et al., 1995) for participants. The ICS-T contains 18 items, presented on a line with 7 tick-marks, anchored by ‘never’ on one end, ‘always’ on the other end, and ‘sometimes’ at the mid-way mark. Items on the ICS-T are grouped into six factors: Academic Achievement (ACA: spelling and math), Aggression (AGG: argues, trouble at school, fights), Popularity (POP: popular with girls/boys, lots of friends), Social Affiliation (AFF: smile, friendly), Olympian Quantities (OLY: appearance, sports, wins), and Internalizing Problems (INT: shy, worry, sad). Internal consistencies conducted by Cairns et al. (1995) revealed median coefficient alphas ranging from .67 to .82. Within this study, coefficient alphas were .87 for OLY, .87 for POP, .73 for AFF, and .61 for INT.

Two items were used from the ICS-T in the construction of the shy-withdrawal composite variable. The mean of two items from the INT scale were used, one which is closely linked with behavioral inhibition and social withdrawal (i.e., shyness) and the other of which is a common indicator of anxiety (i.e., worry). To create the “*shy-withdrawal*” composite, the teacher-report (shy, worry) and peer-report (anxious-withdrawal) measures were standardized by grade unit, summed, and the mean was taken from the sum (Song et al., 2013).

Social Dissatisfaction

To assess the degree to which participants are dissatisfied with their friendships and affiliations at the network level, they completed the Peer Network and Dyadic Loneliness Scale (PNLDS; Hoza et al., 2000). The PNLDS consists of 16 items assessing peer dyadic and peer network dissatisfaction. The eight items related to dyadic dissatisfaction involve feeling close to someone, feeling supported, and being cared for over time. The eight items related to network dissatisfaction include items relating to feeling liked or accepted, feeling involved in activities

with the group, and having affiliates in the group with whom to do things. Coefficient alphas have indicated high internal consistency for both subscales (i.e., .88 for the Peer Network Loneliness subscale and .84 for the Peer Dyadic Loneliness subscale; Hoza et al., 2000). Within the current sample, the internal consistency of the Network subscale was slightly lower (i.e., $\alpha=.82$), whereas the coefficient alpha for the Dyadic subscale was commensurate (i.e., $\alpha=.83$).

CHAPTER 4

RESULTS

Number of Nominated Friends and Affiliates

Descriptive statistics for the number of nominated perceived friends, desired friends, perceived affiliates, and desired affiliates within the whole sample and by gender are contained in Table 1. The majority of all participants nominated at least one perceived friend, desired friend, perceived affiliate, and desired affiliate, which is consistent with past research (Thomas & Bowker, 2012; Scholte et al., 2009). However, nearly all children nominated a perceived friend or affiliate, whereas fewer nominated a *desired friend* (63%) or *desired affiliate* (71%). Chi-square tests were used to examine whether significant differences exist between boys and girls and their likelihood of nominating at least one peer in each of the four categories. There were no significant differences for nominating at least one *desired friend*, $\chi^2(8, N=488) = 14.01, p = .08$, or *perceived affiliate*, $\chi^2(8, N=488) = 12.10, p = .15$. There was a significant difference for nominating at least one *perceived friend*, $\chi^2(10, N=488) = 18.21, p = .05$ and a significant difference between genders for nominating at least one *desired affiliate* $\chi^2(7, N=488) = 18.07, p < .05$.

In order to determine whether there was a significant difference in the number of peers nominated by boys and girls, independent T-tests were conducted. Girls nominated more of their peers as *perceived friends*, (girls $M=3.44, SD=1.68$; boys $M=2.97, SD=1.49$) $t(485.11) = -3.19, p < .01$, *desired friends*, (girls $M=1.27, SD=1.30$; boys $M=0.95, SD=1.18$) $t(484.10) = -2.84, p < .01$, *perceived affiliates*, (girls $M=2.69, SD=1.56$; boys $M=2.39, SD=1.58$) $t(470.46) = -2.12,$

$p < .05$, and *desired affiliates*, (girls $M = 1.40$, $SD = 1.29$; boys $M = 1.00$, $SD = 1.09$) $t(486) = -3.72$, $p < .001$. Thomas and Bowker (2012) also found girls had higher numbers of desired friends than boys.

Gender Differences: Relation Between Shy-Withdrawal and Friend/Affiliate

Characteristics

The mean, standard deviation, and range of the current study's dependent and independent variables are presented in Table 2. Following Bresland et al. (2018), independent samples t-tests were conducted to examine gender differences in variable means. With a few exceptions, boys and girls did not differ on the main study variables. Boys nominated more *most-liked* peers as *desired friends* than did girls, $t(221.88) = 2.15$, $p < .05$. Girls nominated more *popular* peers as *perceived friends* than boys, $t(409) = 1.94$, $p = .05$. Girls reported more *network social dissatisfaction* than boys, $t(485.75) = -2.09$, $p < .05$.

Comparison of Those with and Without at Least One Desired Friend/Affiliate

To examine if those who indicated a desire for friends and/or affiliates are more shy-withdrawn and socially dissatisfied, the characteristics of students who listed *at least one desired friend* ($N = 306$) and *at least one desired affiliate* ($N = 342$) were compared with those who did not. Higher levels of *shy-withdrawal* were found for those who nominated *at least one desired friend* ($M = 0.05$, $SD = 0.83$), $t(440.96) = -2.01$, $p = .05$, compared to those who did not ($M = -0.09$, $SD = 0.67$), and *at least one desired affiliate* ($M = 0.05$, $SD = 0.82$), $t(360.34) = -2.34$, $p < .05$, compared to those who did not ($M = -0.11$, $SD = 0.62$). Furthermore, participants who listed *at least one desired friend* reported significantly more *social dissatisfaction* ($M = 0.05$, $SD = 0.80$) than those who did not ($M = -0.10$, $SD = 0.76$), $t(394.69) = -2.06$, $p < .05$. Similarly, those who listed

at least one desired affiliate also reported significantly more social dissatisfaction ($M=0.05$, $SD=0.80$) than those who did not ($M=-0.21$, $SD=0.73$), $t(299.61)=-3.33$, $p<.001$.

Intercorrelations Among Main Study Variables

Next, correlations were conducted between shy-withdrawal, total number of perceived/desired friends/affiliates, and social dissatisfaction for both genders. *Shy-withdrawal* was negatively correlated with the number of *perceived friends*, $r=-0.14$, $p<.05$ and *perceived affiliates*, $r=-0.16$, $p<.05$, for boys. For girls, similar negative correlations were found between *shy-withdrawal* and the number of *perceived friends*, $r=-0.17$, $p<.01$, and *affiliates*, $r=-0.25$, $p<.001$. There was also a positive correlation between *shy-withdrawal* and *desired friends* for girls, $r=0.13$, $p<.05$, but not for boys, $r=0.05$, $p=.42$. With regard to *social dissatisfaction*, a positive correlation was found between both *dyadic*, $r=.17$, $p<.05$, and *network*, $r=.22$, $p<.001$, *social dissatisfaction* and *shy-withdrawal* for boys. *Shy-withdrawal* was positively correlated to *dyadic*, $r=.13$, $p<.05$, and *network*, $r=.25$, $p<.001$, *social dissatisfaction* for girls, too.

Table 3 presents the intercorrelations between *shy-withdrawal* and *friend (affiliate) characteristics* separately for boys and girls. For both boys and girls, *shy-withdrawal* was positively correlated with *perceived friends'* and *perceived affiliates'* level of peer-reported *anxious-withdrawal*. *Shy-withdrawal* was also negatively correlated with having *perceived friends* and *perceived affiliates* who peers viewed as *popular*, at least for girls. Interestingly, the degree to which *perceived friends* and *affiliates* were characterized as *anxious-withdrawn* by peers was not related to how *liked* or *popular* they were. *Shy-withdrawal* was unrelated to the *characteristics of desired friends* and *desired affiliates*.

Intercorrelations between *dyadic/network social dissatisfaction* and *friend/affiliate characteristics* are presented in Table 4 by gender. *Network social dissatisfaction* was positively

correlated with the degree to which *perceived friends* and *affiliates* were rated as *anxious-withdrawn* for both genders but only the level of *anxious-withdrawal* of *desired affiliates* for girls. Having *popular perceived friends* was negatively correlated with *network social dissatisfaction* for girls.

Mixed-Effect Linear Regressions

The following analyses considered the nested nature of teacher ratings, as teachers reported on participants within their homerooms and those observations lack independence. Although the relationship between variables was not conceived to vary based on changing dynamics across grade units, analyses also considered the nested nature of relations between specific sets of children within reference groups (i.e., grade unit). Therefore, models in all analyses consisted of participants nested within classrooms (N=30) and classrooms nested within grade units (N=8) (SAS Institute Inc., Cary, NC, 2009). All analyses were conducted with the MIXED procedure in SAS version 9.04 (SAS Institute Inc., Cary, NC). Random intercepts for classrooms and grade units were included to account for clustered errors but were otherwise not of theoretical interest. First, two mixed model regressions were conducted to examine if the *number of desired friends* and *desired affiliates* is connected to individual levels of *shy-withdrawal*. Next, mixed model regressions were conducted to investigate whether *shy-withdrawn* children have *perceived friends* and *affiliates* with similar characteristics. Finally, mixed model regressions were conducted to investigate the level of *dyadic social dissatisfaction* based on *perceived* and *desired friend characteristics* and *network dissatisfaction* related to *perceived* and *desired affiliate characteristics*.

Number of Desired Friends and Affiliates

Desired Friend Nominations. The first regression addressed if *shy-withdrawal* predicted the number of *desired friends*. *Gender*, *majority-race*, and *shy-withdrawal* were included in the model as fixed effects. *Shy-withdrawal* was a significant predictor of the *number of desired friends*, $t=3.07$, $p<.01$. There was a main effect of *gender*, $t=-2.81$, $p<.05$, and *majority-race*, $t=-2.37$, $p<.05$, although the main effects of *shy-withdrawal* and *majority-race* were qualified by an interaction between the two variables, $t=-2.40$, $p<.05$. As indicated in Figure 1, as the *shy-withdrawal* of *majority-race* children increased, the *number of desired friends* listed increased. For *minority-race* children, higher levels of *shy-withdrawal* predicted fewer *desired friend* nominations.

Desired Affiliate Nominations. The next mixed-effects linear regression was used to investigate if *shy-withdrawal* predicted how many *desired affiliates* a child nominated once accounting for gender and the racial status of the child. *Majority-race*, $t=-2.37$, $p=.77$, and the level of *social withdrawal*, $t=1.45$, $p=.15$, were not significant predictors of the *number of desired affiliates*. However, *gender* predicted the *number of desired affiliates*, $t=-3.62$, $p<.001$. Consistent with results of previously reported t-tests (above), girls nominated more of their peers as *desired affiliates* than did boys.

Characteristics of Friends and Affiliates of Socially Anxious Children

Characteristics of Friends. We next investigated if *shy-withdrawn* children nominated *perceived friends* as having similar characteristics. Mixed-effect regressions were conducted, with the degree to which *perceived friends* were characterized as *anxious-withdrawn*, *most liked*, and *popular* as the dependent variable and *gender*, *majority-race*, and *shy-withdrawal* as predictors (Table 5). There was a significant interaction between *gender* and *shy-withdrawal*, and between *majority race* and *shy-withdrawal* when predicting the *anxious-withdrawal* of *perceived*

friends. As indicated in Figures 2 and 3, girls, in particular, nominated more *anxious-withdrawn perceived friends* as their degree of *shy-withdrawal* increased, and those in the *non-majority race group*, in particular, nominated more *anxious-withdrawn perceived friends* as their level of *shy-withdrawal* increased.

Mixed-effect regressions were also conducted with the degree to which *perceived friends* were reported by peers as *most-liked* and *popular*. *Gender*, *majority race*, and *shy-withdrawal* did not predict how *well-liked perceived friends* were. *Gender*, $t=2.03$, $p<.05$, and *majority race*, $t=-2.11$, $p<.05$ both predicted how *popular perceived friends* were, but *shy-withdrawal* did not. *Girls* nominated more *popular friends*, and those in the *majority race* nominated more *popular friends*.

Mixed-effect regressions were conducted predicting *desired friend characteristics* (*anxious-withdrawn*, *most-liked*, *popularity*) using *gender*, *majority-race*, and *shy-withdrawal* as predictors. There was no significant predictor for nominating *desired friends* who were *anxious-withdrawn* or *popular*. A main effect of *gender* on nominating more *desired friends* who are *liked most* by peers approached significance, $t=1.96$, $p=.051$.

Characteristics of Affiliates. Following previous research, the current study aimed to investigate whether *shy-withdrawn children* affiliate with other children with similar characteristics (Rubin et al., 2006). A mixed-effect regression predicting the mean level of *anxious withdrawn* characteristics of *perceived affiliates* from the level of participant's *shy-withdrawal* was conducted with *gender* and *majority race* as covariates (Table 6). Contrary to previous research, the level of *shy-withdrawal* was not found to be a significant predictor of the levels of *anxious withdrawal* in *perceived affiliates*, $t=1.31$, $p=.19$. Although there was no interacting with the covariates, a *gender by shy-withdrawal* interaction approached significance,

$t=1.95, p=.052$. Similar regressions were conducted predicting *liked-most* and *popular perceived affiliates*, with results showing no significant predictors.

Desired affiliate characteristics were also predicted via mixed-effect regressions with *gender, race, and shy-withdrawal* as predictors. There were no significant predictors of nominating *desired affiliates* who were *anxious-withdrawn, most liked, or popular*.

Examination of Relation between Social Dissatisfaction, Shy-Withdrawal, and Friend and Affiliate Characteristics

Perceived and Desired Friends. The first two mixed-effects regressions addressed the question of whether social dissatisfaction is related to shy-withdrawal and the peer-reported characteristics of a child's perceived and desired friends. Gender and majority-race were again included as predictors. Results are presented in Table 7. For those who listed at least one *perceived friend, shy-withdrawal* positively predicted *dyadic social dissatisfaction* only in one of the three mixed regressions, but no interaction term was significant in any of the three regression models. That is, having higher *shy-withdrawal* characteristics predicts *dyadic social dissatisfaction* regardless of the characteristics of those children's friends in the context of having liked-most friends. Characteristics of *desired friends* did not predict *dyadic social dissatisfaction*, which was not moderated by *shy-withdrawal*.

Perceived and Desired Affiliates. The final set of analyses mirrors the previous set but instead focuses on *affiliates* rather than *friends*. Mixed-effect regressions were conducted to determine if *network social dissatisfaction* is predicted by participants' level of shy-withdrawal and the characteristics of their perceived and desired affiliates (Table 8). For the 96% of the sample who nominated at least one *perceived affiliate*, there was a main effect of *gender* and *shy-withdrawal* on *network social dissatisfaction* in all models. In addition, the degree to which

perceived affiliates were characterized as *anxious-withdrawn* also positively and significantly predicted levels of *network social dissatisfaction*. This did not vary based on the child's level of shy-withdrawal. The degree to which *perceived affiliates* were reported by peers as *popular* and *well-liked* did not predict less dissatisfaction; this also did not vary by the child's degree of shy-withdrawal.

For the 71% of children who nominated at least one *desired affiliate*, higher levels of *shy-withdrawal* significantly predicted more *network social dissatisfaction* in two of the three models and marginally in the third. Similar to the results for perceived affiliates, *desired affiliates'* level of *anxious-withdrawal* predicted increased *network social dissatisfaction*, at least among those listing at one desired affiliate. The link between the *anxious-withdrawal* of *desired affiliates* and a child's *social dissatisfaction* did not vary based on the child's level of *shy-withdrawal*.

Table 1

Mean, Standard Deviation, and Frequency of Nominations for Perceived/Desired

Friends/Affiliates

Variable	Boys (N=224)		Girls (N=264)		All (N=488)	
	M (SD)	% with at least one nomination	M (SD)	% with at least one nomination	M (SD)	% with at least one nomination
PF	2.97 (1.49)	96%	3.44 (1.68)	99%	3.22 (1.61)	98%
DF	0.95 (1.18)	55%	1.27 (1.30)	69%	1.12 (1.26)	63%
PA	2.38 (1.58)	94%	2.69 (1.55)	97%	2.55 (1.57)	96%
DA	1.00 (1.10)	64%	1.40 (1.29)	75%	1.22 (1.22)	71%

Note. PF=Perceived Friend; DF=Desired Friend; PA=Perceived Affiliate; DA=Desired Affiliate

Table 2*Mean, Standard Deviation, and Range of Characteristics of Perceived and Desired Friends and Affiliates*

Variables	Boys (N=224)			Girls (N=264)			All (N=488)		
	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range
1. Shy-Withdrawal	0.01	0.74	-1.37–3.27	-0.01	0.81	-1.17–3.84	0.00	0.78	-1.37–3.84
2. AW Means									
PF	0.01	0.02	0–0.14	0.01	0.02	0–0.10	0.01	0.02	0–0.14
DF	0.01	0.03	0–0.26	0.02	0.04	0–0.43	0.02	0.04	0–0.43
PA	0.01	0.02	0–0.24	0.02	0.03	0–0.24	0.02	0.03	0–0.24
DA	0.01	0.03	0–0.26	0.02	0.04	0–0.43	0.02	0.03	0–0.43
3. Likeability Means									
PF	0.05	0.03	0–0.19	0.04	0.02	0–0.12	0.04	0.02	0–0.19
DF	0.06	0.04	0–0.19	0.05	0.03	0–0.19	0.05	0.03	0–0.19
PA	0.05	0.03	0–0.19	0.05	0.02	0–0.14	0.05	0.03	0–0.19
DA	0.05	0.04	0–0.19	0.05	0.03	0–0.14	0.05	0.03	0–0.19
4. Popularity Means									
PF	0.04	0.06	0–0.33	0.03	0.04	0–0.33	0.04	0.05	0–0.33
DF	0.08	0.08	0–0.44	0.07	0.07	0–0.34	0.07	0.07	0–0.44
PA	0.04	0.05	0–0.23	0.04	0.05	0–0.31	0.04	0.05	0–0.31
DA	0.06	0.07	0–0.44	0.05	0.07	0–0.31	0.06	0.07	0–0.44
5. Network SD	-0.11	0.74	-0.98–2.09	0.05	0.83	-0.98–2.37	-0.02	0.79	-0.98–2.37
6. Dyad SD	-0.02	0.72	-0.77–2.73	0.01	0.84	-0.77–2.73	-0.00	0.79	-0.77–2.73

Note. AW=Anxious Withdrawal; PF=Perceived Friend; DF=Desired Friend; PA=Perceived Affiliate; DA=Desired Affiliate; SD=Social Dissatisfaction

Table 3*Intercorrelations Among Shy-Withdrawal and Perceived/Desired Friends/Affiliates Mean Characteristics by Gender*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. SW	-	0.20**	-0.06	0.21***	0.05	-0.09	0.01	-0.09	0.01	-0.16*	-0.07	-0.19*	-0.11
2. AW PF	0.31***	-	0.12	0.81***	0.31***	-0.01	0.13	-0.02	0.12	-0.12	0.01	-0.12	0.07
3. AW DF	-0.01	0.12	-	0.15	0.73***	0.04	-0.09	0.00	-0.02	0.03	-0.12	-0.01	-0.01
4. AW PA	0.38***	0.81***	0.15	-	0.42***	0.06	0.14	-0.02	0.13	-0.08	-0.03	-0.11	0.08
5. AW DA	-0.04	0.31***	0.73***	0.42***	-	0.02	-0.00	0.00	-0.03	-0.05	-0.13	-0.07	-0.12
6. L PF	-0.10	-0.01	0.04	0.06	0.02	-	0.31***	0.84***	0.51***	0.63***	0.10	0.49***	0.41***
7. L DF	-0.03	0.13	-0.09	0.14	-0.00	0.31***	-	0.31***	0.43***	0.12	0.51***	0.02	0.27***
8. L PA	-0.09	-0.02	0.00	-0.02	0.00	0.84***	0.31***	-	0.52***	0.54***	0.13	0.59***	0.36***
9. L DA	-0.05	0.12	-0.02	0.13	-0.03	0.51***	0.43***	0.52***	-	0.38***	0.21**	0.31***	0.60***
10. P PF	-0.13	-0.12	0.03	-0.08	-0.05	0.63***	0.12	0.54***	0.38***	-	0.04	0.79***	0.48***
11. P DF	-0.00	0.01	-0.12	-0.03	-0.13	0.10	0.51***	0.13	0.21**	0.04	-	0.05	0.42***
12. P PA	-0.11	-0.12	-0.01	-0.11	-0.07	0.49***	0.02	0.59***	0.31***	0.79***	0.05	-	0.32***
13. P DA	0.04	0.07	-0.01	0.08	-0.15	0.40***	0.27***	0.36***	0.60***	0.44***	0.42***	0.32***	-

*p<.05; **p<.01; ***p<.001

Note. Boys correlations are below the diagonal, Girls correlations are above the diagonal.

Perceived Friend N=477; Desired Friend N=306; Perceived Affiliate N=468; Desired Affiliate N=342

SW=Shy-Withdrawal; AW=Anxious Withdrawal; L=Likeability; P=Popularity; PF=Perceived Friend; DF=Desired Friend; PA=Perceived Affiliate; DA=Desired Affiliate

Table 4

Intercorrelations Among Social Dissatisfaction and Perceived/Desired Friends/Affiliates Mean Characteristics by Gender

Variables	Boys		Girls	
	DSD	NSD	DSD	NSD
1. AW PF	0.11	0.14*	0.12	0.19**
2. AW DF	0.04	0.04	-0.04	0.13
3. AW PA	0.13	0.19**	0.05	0.14*
4. AW DA	-0.04	0.03	-0.00	0.15*
5. L PF	0.00	-0.11	-0.04	-0.12
6. L DF	0.01	-0.06	0.01	-0.02
7. L PA	0.05	-0.04	0.03	-0.08
8. L DA	0.03	-0.08	0.09	-0.04
9. P PF	-0.03	-0.12	-0.01	-0.15*
10. P DF	-0.03	-0.00	-0.05	0.03
11. P PA	-0.03	-0.09	-0.00	-0.08
12. P DA	0.03	-0.03	-0.03	-0.07

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

Note. Perceived Friend $N=477$; Desired Friend $N=306$; Perceived Affiliate $N=468$; Desired Affiliate $N=342$.

AW=Anxious Withdrawal; L=Likeability; P=Popularity; PF=Perceived Friend; DF=Desired Friend; PA=Perceived Affiliate; DA=Desired Affiliate; DSD=Dyadic Social Dissatisfaction; NSD=Network Social Dissatisfaction

Table 5*Linear Mixed Model Estimates Predicting Characteristics of Friend from Levels of Shy-Withdrawal*

	Friend Characteristics						Friend Characteristics				
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>DF</i>	<i>p</i>		<i>b</i>	<i>SE</i>	<i>t</i>	<i>DF</i>	<i>p</i>
Perceived (N=477)						Desired (N=306)					
<i>Anxious-Withdrawal</i>						<i>Anxious-Withdrawal</i>					
Intercept	.014	.003	5.36	7	.001	Intercept	.014	.005	2.94	7	.022
Gender	-.001	.002	-0.81	442	.416	Gender	-.003	.004	-0.72	271	.471
Majority Race	.002	.002	0.80	442	.424	Majority Race	.004	.005	0.73	271	.465
Shy-Withdrawal	-.001	.003	-0.52	442	.605	Shy-Withdrawal	-.004	.007	-0.65	271	.519
SW*Gender	.006	.002	2.58	442	.010	SW*Gender	.002	.005	0.44	271	.658
SW*Majority Race	.006	.003	2.16	442	.032	SW*Majority Race	.002	.007	0.24	271	.809
Residual	.000	.000				Residual	.001	.000			
<i>Likeability</i>						<i>Likeability</i>					
Intercept	.046	.006	7.58	7	.000	Intercept	.055	.007	7.34	7	.000
Gender	.001	.002	0.64	442	.521	Gender	.007	.003	1.96	271	.051
Majority Race	.001	.002	0.30	442	.766	Majority Race	-.004	.004	-1.01	271	.315
Shy-Withdrawal	-.004	.003	-1.32	442	.189	Shy-Withdrawal	.002	.005	0.35	271	.727
SW*Gender	.000	.002	0.18	442	.858	SW*Gender	.001	.004	0.26	271	.795
SW*Majority Race	.001	.003	.003	442	.814	SW*Majority Race	-.004	.005	-0.72	271	.473
Residual	.000	.000				Residual	.000	.000			
<i>Popularity</i>						<i>Popularity</i>					
Intercept	.044	.007	7	6.10	.001	Intercept	.060	.012	5.11	7	.001

Gender	.009	.004	442	2.03	.043	Gender	.014	.008	1.64	271	.101
Majority Race	-.012	.006	442	-2.11	.035	Majority Race	.009	.011	0.85	271	.399
Shy-Withdrawal	-.013	.007	442	-1.88	.061	Shy-Withdrawal	-.014	.013	-1.06	271	.289
SW*Gender	.001	.006	442	0.15	.883	SW*Gender	.006	.010	0.60	271	.549
SW*Majority Race	.007	.007	442	0.89	.374	SW*Majority Race	.008	.013	0.60	271	.548
Residual	.002	.000				Residual	.005	.000			

Note: SW=Shy-Withdrawal

Table 6*Linear Mixed Model Estimates Predicting Characteristics of Affiliates from Levels of Shy-Withdrawal*

	Affiliate Characteristics						Affiliate Characteristics				
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>DF</i>	<i>p</i>		<i>b</i>	<i>SE</i>	<i>t</i>	<i>DF</i>	<i>p</i>
Perceived (N=468)						Desired (N=342)					
<i>Anxious-Withdrawal</i>						<i>Anxious-Withdrawal</i>					
Intercept	.016	.003	4.80	7	.002	Intercept	.019	.005	3.92	7	.006
Gender	-.004	.002	-1.67	433	.095	Gender	-.003	.004	-0.67	307	.506
Majority Race	.001	.003	0.45	433	.653	Majority Race	-.002	.005	-0.48	307	.631
Shy-Withdrawal	.005	.004	1.31	433	.192	Shy-Withdrawal	.002	.006	0.38	307	.704
SW*Gender	.006	.003	1.95	433	.052	SW*Gender	-.003	.005	-0.71	307	.481
SW*Majority Race	.002	.004	0.58	433	.560	SW*Majority Race	-.000	.006	-0.04	307	.970
Residual	.001	.000				Residual	.001	.000			
<i>Likeability</i>						<i>Likeability</i>					
Intercept	.047	.006	8.36	7	.000	Intercept	.048	.008	6.25	7	.000
Gender	-.000	.002	-0.02	433	.982	Gender	.003	.003	1.12	307	.262
Majority Race	.000	.003	0.01	433	.989	Majority Race	.002	.004	0.54	307	.590
Shy-Withdrawal	-.002	.003	-0.70	433	.485	Shy-Withdrawal	.004	.005	0.72	307	.471
SW*Gender	.002	.003	0.63	433	.527	SW*Gender	.000	.004	0.09	307	.928
SW*Majority Race	-.002	.003	-0.48	433	.633	SW*Majority Race	-.005	.005	-1.06	307	.290
Residual	.000	.000				Residual	.001	.000			
<i>Popularity</i>						<i>Popularity</i>					
Intercept	.039	.007	5.81	7	.001	Intercept	.060	.013	4.81	7	.002

Gender	.003	.004	0.64	433	.524	Gender	.003	.007	0.36	307	.721
Majority Race	-.001	.006	-0.27	433	.790	Majority Race	-.005	.009	-0.54	307	.590
Shy-Withdrawal	-.013	.007	-1.76	433	.079	Shy-Withdrawal	.017	.012	-1.50	307	.135
SW*Gender	.006	.006	0.99	433	.322	SW*Gender	.016	.009	1.85	307	.065
SW*Majority Race	.001	.007	0.18	433	.855	SW*Majority Race	.008	.012	0.67	307	.502
Residual	.002	.000				Residual	.004	.000			

Note: SW=Shy-Withdrawal

Table 7

Linear Mixed Model Estimates Predicting Social Dissatisfaction from Levels of Shy-Withdrawal and Desired and Perceived Friends

Characteristics

	Social Dissatisfaction						Social Dissatisfaction				
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>DF</i>	<i>p</i>		<i>b</i>	<i>SE</i>	<i>t</i>	<i>DF</i>	<i>p</i>
Perceived (N=477)						Desired (N=306)					
<i>Anxious-Withdrawal</i>						<i>Anxious-Withdrawal</i>					
Intercept	-.016	.099	-0.16	7	.878	Intercept	.102	.119	0.86	7	.419
Gender	-.062	.069	-0.91	442	.364	Gender	.036	.092	0.39	271	.697
Majority Race	-.023	.088	-0.26	442	.797	Majority Race	-.069	.114	-0.60	271	.546
Shy-Withdrawal	.100	.056	1.79	442	.074	Shy-Withdrawal	.116	.068	1.77	271	.078
AW Mean	2.77	2.06	1.35	442	.178	AW Mean	-.455	1.49	-0.31	271	.761
SW*AW Mean	.502	1.53	0.33	442	.743	SW*AW Mean	-1.25	2.46	-0.51	271	.611
Residual	.547	.037				Residual	.607	.052			
<i>Likeability</i>						<i>Likeability</i>					
Intercept	.087	.123	0.71	7	.501	Intercept	.132	.147	0.90	7	.399
Gender	-.064	.068	-0.94	442	.347	Gender	.039	.092	0.42	271	.675
Majority Race	-.022	.089	-0.25	442	.806	Majority Race	-.074	.115	-0.64	271	.522
Shy-Withdrawal	.258	.094	2.74	442	.006	Shy-Withdrawal	.107	.114	0.95	271	.345
Likeability Mean	-1.42	1.59	-0.89	442	.372	Likeability Mean	-.613	1.51	-0.41	271	.686
SW*Like Mean	-3.27	2.03	-1.61	442	.108	SW*Like Mean	-1.199	1.96	-0.10	271	.919
Residual	.544	.037				Residual	.606	.052			

<i>Popularity</i>						<i>Popularity</i>					
Intercept	.028	.102	0.27	7	.793	Intercept	.136	.122	1.11	7	.302
Gender	-.066	.069	-0.95	442	.341	Gender	.037	.092	0.40	271	.687
Majority Race	-.015	.089	-0.17	442	.868	Majority Race	-.078	.113	-0.68	271	.499
Shy-Withdrawal	.098	.056	1.76	442	.079	Shy-Withdrawal	.015	.077	0.19	271	.847
Popular Mean	-.012	.734	-0.02	442	.987	Popular Mean	-.437	.623	-0.70	271	.484
SW*Pop Mean	1.03	1.15	0.90	442	.370	SW*Pop Mean	1.23	.856	1.49	271	.137
Residual	.548	.037				Residual	.601	.052			

Note: AW=Anxious Withdrawal; SW=Shy-Withdrawal

Table 8

Linear Mixed Model Estimates Predicting Social Dissatisfaction from Levels of Shy-Withdrawal and Desired and Perceived Affiliates

Characteristics

	Social Dissatisfaction						Social Dissatisfaction				
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>DF</i>	<i>p</i>		<i>b</i>	<i>SE</i>	<i>t</i>	<i>DF</i>	<i>p</i>
Perceived (N=468)						Desired (N=342)					
<i>Anxious-Withdrawal</i>						<i>Anxious-Withdrawal</i>					
Intercept	.042	.094	0.45	7	.665	Intercept	.118	.111	1.06	7	.325
Gender	-.176	.069	-2.54	433	.011	Gender	-.166	.086	-1.93	307	.054
Majority Race	-.085	.088	-0.96	433	.336	Majority Race	-.062	.108	-0.58	307	.565
Shy-Withdrawal	.213	.053	4.05	433	<.001	Shy-Withdrawal	.218	.059	3.67	307	<.001
AW Mean	4.30	1.61	2.67	433	.008	AW Mean	2.71	1.24	2.19	307	.029
SW*AW Mean	-1.23	1.03	-1.20	433	.232	SW*AW Mean	-.481	1.99	-0.24	307	.809
Residual	.548	.036				Residual	.603	.047			
<i>Likeability</i>						<i>Likeability</i>					
Intercept	.180	.114	1.58	7	.158	Intercept	.230	.127	1.81	7	.112
Gender	-.193	.069	-2.77	433	.010	Gender	-.166	.086	-1.92	307	.056
Majority Race	-.089	.089	-1.01	433	.314	Majority Race	-.079	.108	-0.73	307	.468
Shy-Withdrawal	.220	.086	2.56	433	.011	Shy-Withdrawal	.217	.105	2.07	307	.039
Likeability Mean	-1.43	1.43	-1.00	433	.317	Likeability Mean	-1.12	1.36	-0.83	307	.409
SW*Like Mean	-.232	1.85	-0.13	433	.900	SW*Like Mean	-.076	1.84	-0.04	307	.967
Residual	.557	.038				Residual	.614	.614			

<i>Popularity</i>						<i>Popularity</i>					
Intercept	.136	.094	1.46	7	.189	Intercept	.080	.124	0.64	7	.540
Gender	-.196	.070	-2.81	433	.005	Gender	-.049	.088	-0.55	307	.580
Majority Race	-.082	.088	-0.93	433	.354	Majority Race	.012	.113	0.10	307	.917
Shy-Withdrawal	.177	.055	3.24	433	.001	Shy-Withdrawal	.121	.068	1.78	307	.076
Popular Mean	-.512	.743	-0.69	433	.491	Popular Mean	.045	.657	0.07	307	.946
SW*Pop Mean	1.21	1.17	1.03	433	.303	SW*Pop Mean	.346	.781	0.44	307	.658
Residual	.554	.038				Residual	.630	.051			

Note: AW=Anxious Withdrawal; SW=Shy-Withdrawal

Figure 1

Interaction Between Shy-Withdrawal and Majority Race Predicting Number of Desired Friends

Listed

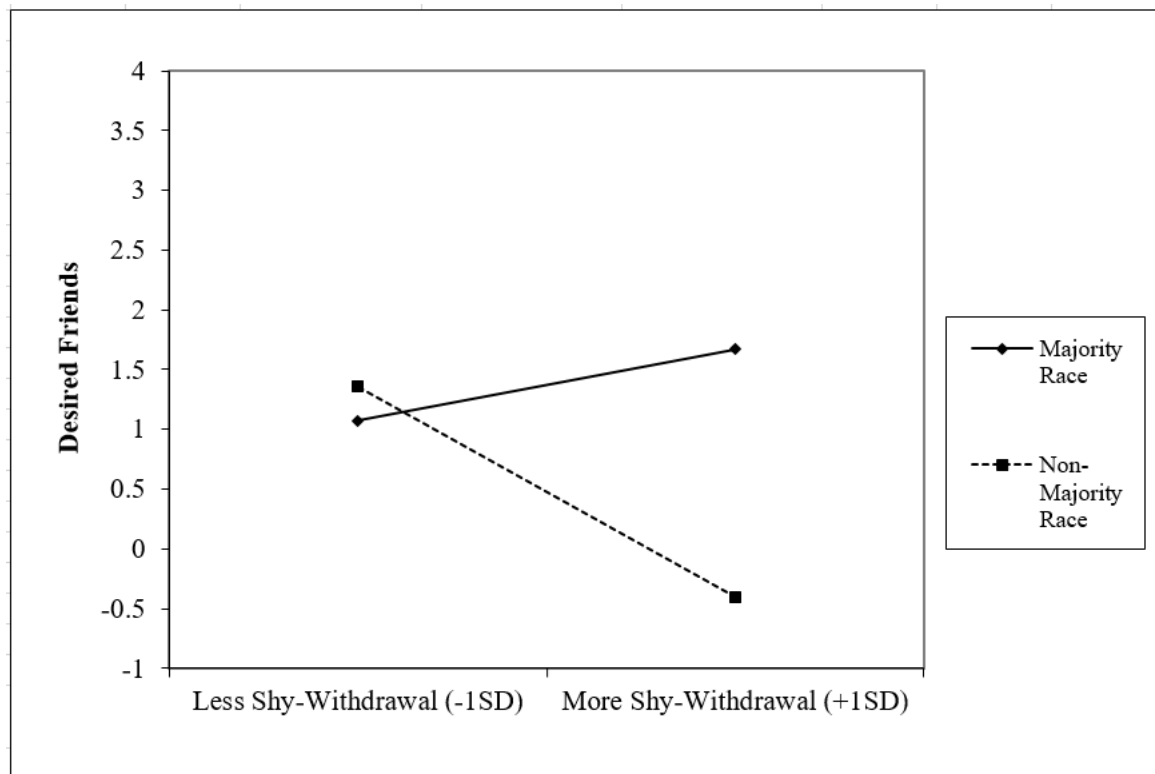


Figure 2

Interaction Between Shy-Withdrawal and Gender Predicting Number of Anxious-Withdrawn Perceived Friends Listed

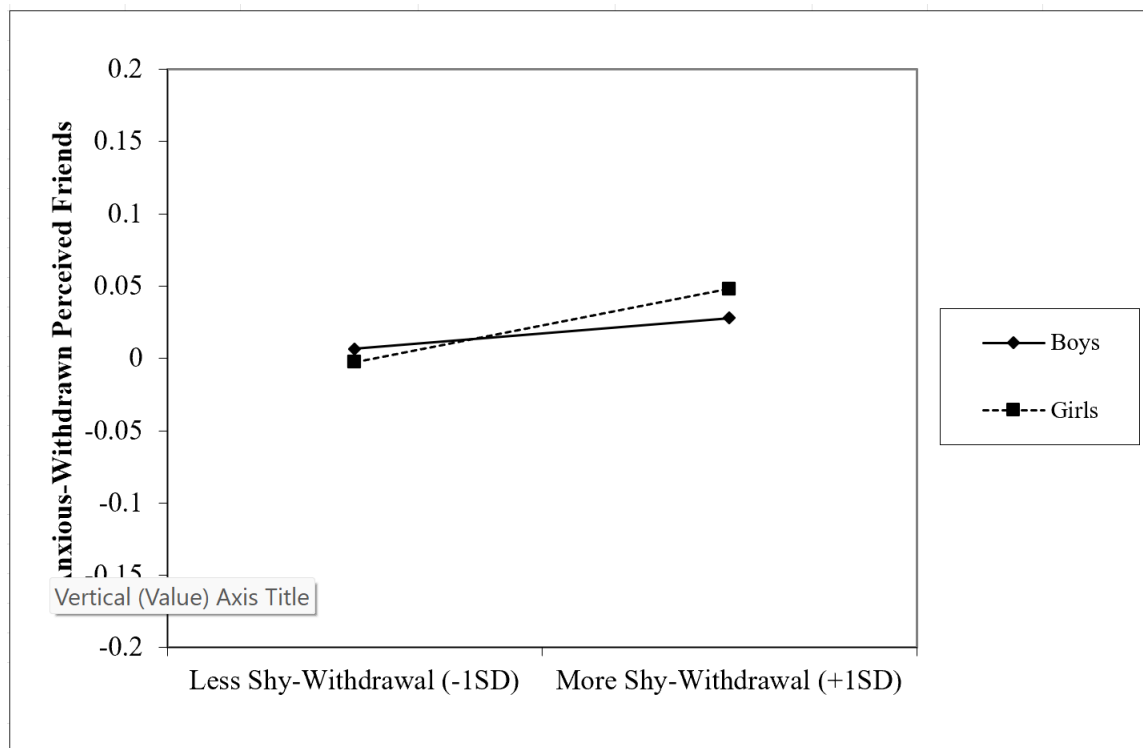
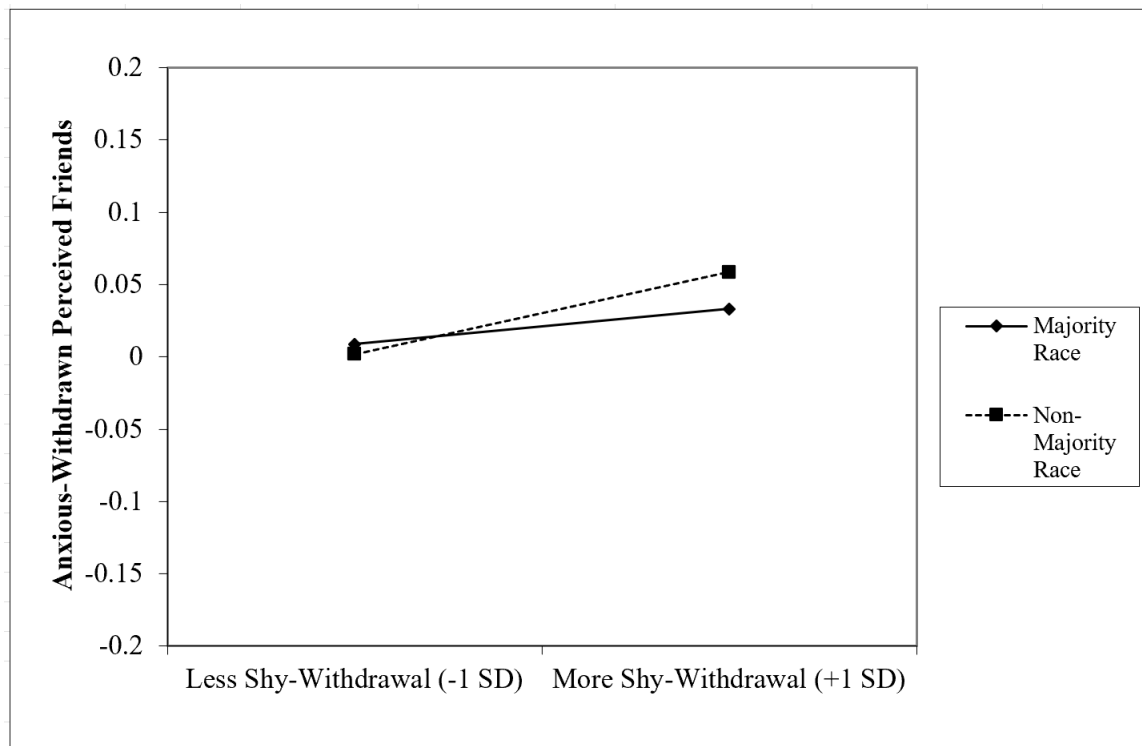


Figure 3

Interaction Between Shy-Withdrawal and Majority Race Predicting Number of Anxious-Withdrawn Perceived Friends Listed



CHAPTER 5

DISCUSSION

Social relationships are an important part of childhood development (Jacob et al., 2014; Ladd et al., 2011). Socially anxious children have a more difficult time developing social relationships than do their non-socially anxious peers, which can contribute to internalizing and adjustment problems (Rubin et al., 2015; Rubin et al., 2018). Although extensive research has been conducted to investigate the friendships of socially anxious children, little research exists regarding whom socially anxious children, or any children, might desire as a friend or as someone to hang out with. One goal of the current study is to build on previous research of desired friends. Another goal of this study is to investigate not only the *perceived* friends and affiliates of anxious children, but also their *desired* friends and affiliates and the characteristics of those friends and affiliates as they pertain to social dissatisfaction. That is, are socially anxious children's reports of social dissatisfaction related to who they are friends and affiliates with and whom they desire relationships with? Do they desire similarly anxious friends and affiliates, consistent with a 'homophily' effect, or, if given the choice, would they choose friends and affiliates who are well-liked and popular, consistent with the view that their relationships are constrained to the "pool of leftovers" (Rubin et al., 2006)?

The study chose to investigate affiliates along with friends for several reasons. First, there has been no study, in our knowledge, that has investigated the desired affiliates of children. Second, affiliates serve a separate social function than friends and may be sought after or desired

for different reasons. Friendships are built on mutual affection, emotional aid, and fill a need for belongingness (Adler & Adler, 1996; Bagwell & Bukowski, 2018; Rubin et al., 2015), whereas being affiliated or ‘hanging around with’ someone does not require as much effort nor does it implicate the closeness and mutual affection of friendship (Rubin et al., 2015).

Consistent with previous research (Thomas & Bowker, 2012; Scholte et al., 2009), a majority of the participants listed at least one perceived and desired friend and affiliate, with almost all listing at least one perceived friend and affiliate but approximately two-thirds listing a desired friend and/or affiliate. However, gender differences in nomination patterns were evident, with girls being significantly more likely than boys to nominate at least one perceived friend and one desired affiliate. Other gender differences also were evident. Among the boys who listed a desired friend, their desired friends were characterized as better liked by peers compared to the desired friends listed by girls. Girls reported more network social dissatisfaction than did boys, which is similar to what Thomas and Bowker (2012) found. This might be because girls emphasize emotional connections in social relationships relative to boys, as reported by Kitts and Leal (2021) about the attributes found to describe the concept of “friend.” If girls are not as connected as they would like to be to those who they hang around with, then they might be more socially dissatisfied.

Those who nominated at least one desired friend were found to be more shy-withdrawn and to self-report higher levels of social dissatisfaction than were their peers who did not nominate another child as a desired friend. The same pattern was observed for children who nominated at least one desired affiliate. The relation between higher levels of shy-withdrawal and likelihood of desiring at least one friend and/or affiliate could be reflected in the reticent, on looking behavior reported for children who are anxiously withdrawn (Rubin et al., 2018). That is,

anxiously withdrawn children seemingly desire peer interaction but do not act on those desires for fear of social rejection, negative judgement by peers, or both. Similarly, the relation between desiring more relationships and social dissatisfaction implies that those children are not receiving the level of closeness and intimacy (i.e., friendship) or network satisfaction (i.e., affiliates) that they desire. Taking these results in conjunction with results of regression analyses, which indicates shy-withdrawal is related to the number of desired friends nominated but not number of desired affiliates, suggests their social goals are primarily focused on friendships.

For girls and children not in the majority race, shy-withdrawal was related positively to the degree to which perceived friends were characterized as anxious-withdrawn. These findings are at least partially consistent with prior research showing socially anxious children having similarly anxious friends (Rubin et al., 2006; Ladd et al., 2011). Further, girls also nominated perceived friends who were more popular than the perceived friends nominated by boys, which also is consistent with previous research (Thomas & Bowker, 2012), as did those in the majority race. However, in contrast with prior research, shy-withdrawal was not associated with having similarly anxious affiliates (Rubin et al., 2006). Shy-withdrawal did not predict characteristics of who children nominated as desired friends, suggesting that shy-withdrawn children desire more friends in general regardless of their desired friend's characteristics. If this is the case, then it could be that neither the 'homophily' effect nor the 'leftover' effect applies uniformly to all shy-withdrawn children. They simply might want more friends. It is also the case, though, that desired friends might have characteristics not assessed in the current study.

Although the main goal of this study was to examine shy-withdrawn children's perceived and desired friends or affiliate characteristics and how they contribute to their level of social dissatisfaction, multivariate analyses did not reveal shy-withdrawal to be a significant predictor

of social dissatisfaction. This also did not vary based on the characteristics of shy-withdrawn children's perceived or desired friends or affiliates. Given these results, it seems that desiring a friend, in general, is related to more social dissatisfaction, which further supports the role of friendships in early adolescence (Laursen et al., 2007; Rubin et al., 2015; Bagwell & Bukowski, 2018). Similarly, although shy-withdrawal predicted social dissatisfaction, and having more anxious-withdrawn affiliates predicted social dissatisfaction for children as a whole, the characteristics of shy-withdrawn children's perceived and desired friends and affiliates did not relate to their level of social dissatisfaction. Taken together, socially anxious characteristics (i.e., shy-withdrawal, anxious-withdrawal) are associated with more social dissatisfaction regardless of perceived or desired friend and affiliate characteristics.

The current study extends and contributes to research on desired friends and affiliates, but it was not without its limitations. A majority of the participants did not have high levels of shy-withdrawal, and previous studies have found that students who do not participate tend to have higher levels of internalizing problems (McKirahan et al., in press). Future studies could examine desired friends and affiliates in children who have a clinical diagnosis or who are at-risk for Social Anxiety Disorder to further investigate the effects of desired friend and affiliate characteristics. Furthermore, the results might have differed if reciprocated ("actual") rather than perceived friendships had been the subject of investigation (Thomas & Bowker, 2012; Scholte et al., 2009). Much like Thomas & Bowker (2012), this study did not investigate the motivations behind desiring friends and affiliates. Future studies should consider not only investigating those motives, but also surveying young adolescents' understanding behind desiring a particular type of friend or affiliate.

This study contributes not only to literature on socially anxious children but to children as a whole. Up to a third of children in this study listed at least one desired friend/affiliate. This is significant in that desiring more friends/affiliates was shown to relate to increased social dissatisfaction. Because little research has been conducted regarding desired friendships and affiliates, researchers should investigate further the desired friends and affiliates of all children and not just children who are shy-withdrawn.

REFERENCES

- Ackermann, K., Martinelli, A., Bernhard, A., Freitag, C. M., Büttner, G., & Schwenck, C. (2019). Friendship quality in youth with and without disruptive behavior disorders: The role of empathy, aggression, and callousness. *Child Psychiatry & Human Development, 50*, 776-788. <https://doi.org/10.1007/s10578-019-00880-x>
- Adler, P. A., & Adler, P. (1998). *Peer power: Preadolescent culture and identity*. Rutgers University Press.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (4th ed.)*. Arlington, VA, USA: American Psychiatric Publishing, Inc.
- Bagwell, C. L., & Bukowski, W. M. (2018). Friendship in childhood and adolescence: Features, effects, and processes. In W. M. Bukowski, B. Laursen, & K. H. Rubin (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 371-390). New York, NY, US: the Guilford Press.⁴
- Baker, J. R., & Hudson, J. L. (2014). Friendship quality and social information processing in clinically anxious children. *Child Psychiatry & Human Development, 45*, 12-23. <https://doi.org/10.1007/s10578-013-0374-x>
- Baker, J. R., & Hudson, J. L. (2015). Children with social phobia have lower quality friendships than children with other anxiety disorders. *Anxiety, Stress, & Coping, 28*(5), 500-513. <https://doi.org/10.1080/10615806.2014.978863>
- Baartmans, J. M. D., Rinck, M., Hudson, J. L., Lansu, T. A. M., van Niekerk, R. E., Bögels, S. M., & Klein, A. M. (2019). Are socially anxious children really less liked, or do they only

think so? *Cognitive Therapy and Research*, 43, 1043-1050. <https://doi.org/10.1007/s10608-019-10028-9>

Brechwald, W. A., & Prinstein, M. J. (2011) Beyond homophily: a decade of advances in understanding peer influence processes. *Journal of Research on Adolescence*, 21(1), 16-179. <https://doi.org/10.1111%2Fj.1532-7795.2010.00721.x>

Breslend, N. L., Shoulberg, E. K., McQuade, J. D., & Muuray-Close, D. (2018). Social costs for wannabes: Modreating effects of popularity and gender on the links between popularity goals and negative peer experiences. *Journal of Youth and Adolescence*, 47(9), 1894-1906. <https://psycnet.apa.org/doi/10.1007/s10964-018-0810-0>

Bukowski, W. M., Laursen, B., & Hoza, B. (2010). The snowball effect: Friendship moderates escalations in depressed affect among avoidant and excluded children. *Development and Psychopathology*, 22, 749-757. <https://doi.org/10.1017/s095457941000043x>

Bukowski, W. M., Luarsen, B., & Rubin, K. H. (2018). Peer relations: Past, present and promise. In W. M. Bukowski, B. Laursen, & K. H. Rubin (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 3-22). New York, NY, US: The Guilford Press.

Cairns, R. B., Leung, M. C., Gest, S. D., & Cairns, B. D. (1995). A brief method for assessing social development: Structure, reliability, stability, and developmental validity of the Interpersonal Competence Scale. *Behaviour Research and Therapy*, 33(6), 725-736. [https://doi.org/10.1016/0005-7967\(95\)00004-h](https://doi.org/10.1016/0005-7967(95)00004-h)

Cillessen, A. H. N. & Marks, P. E. L. (2017). Methodological choices in peer nomination research. *New Directions for Child and Adolescent Development*, 157, 21-44. <https://doi.org/10.1002/cad.20206>

Coplan, R. J. & Armer, M. (2007). A “multitude” of solitude: A closer look at social withdrawal

and nonsocial play in early childhood. *Child Development Perspectives*, 1(1), 26-32.

<https://psycnet.apa.org/doi/10.1111/j.1750-8606.2007.00006.x>

Crick, N. R., & Dodge, K. A. (1994). A review of reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115(1), 74-101.

<https://psycnet.apa.org/doi/10.1037/0033-2909.115.1.74>

Dijkstra, J. K., Berger, C., & Lindenberg, S. (2011). Do physical and relational aggression explain adolescents' friendship selection? The competing roles of network characteristics, gender, and social status. *Aggressive Behavior*, 37, 417-429.

<https://doi.org/10.1002/ab.20402>

Dijkstra, J. K., Cillessen, A. H. N., Lindenberg, S., & Veenstra, R. (2010). Basking in reflected glory and its limits: Why adolescents hang out with popular peers. *Journal of Research on Adolescence*, 20(4), 942-958. <http://dx.doi.org/10.1111/j.1532-7795.2010.00671.x>

Erath, S. A., Flanagan, K. S., & Bierman, K. L. (2007). Social anxiety and peer relations in early adolescence: Behavioral and cognitive factors. *Journal of Abnormal Child Psychology*, 35, 405-416. <https://doi.org/10.1007/s10802-007-9099-2>

Farmer, T. W., Hall, C. M., Petrin, R., Hamm, J. V., & Dadisman, K. (2010). Evaluating the impact of a multicomponent intervention model on teacher' awareness of social networks at the beginning of middle school in rural communities. *School Psychology Quarterly*, 25(2), 94-106. <https://psycnet.apa.org/doi/10.1037/a0020147>

Fontaine, R. G., Yang, C., Burks, V. S., Dodge, K. A., Price, J. M., Pettit, G. S., & Bates, J. E. (2009). Loneliness as a partial mediator of the relation between low social preference in childhood and anxious/depressed symptoms in adolescence. *Development and Psychopathology*, 21(2), 479-491.

- Frenkel, T. I., Fox, N. A., Pine, D. S., Walker, O. L., Degnan, K. A., & Chronis-Tuscano, A. (2015). Early childhood behavioral inhibition, adult psychopathology and the buffering effects of adolescent social works: A twenty-year prospective study. *Journal of Child Psychology and Psychiatry*, *56*(10), 1065-1073. <https://doi.org/10.1111/jcpp.12390>
- Gommans, R. & Cillessen, A. H. N. (2015). Nominating under constraints: A systematic comparison of unlimited and limited peer nomination methodologies in elementary school. *International Journal of Behavioral Development*, *39*(1), 77-86.
- Hiatt, C., Laursen, B., Mooney, K. S., & Rubin, K. H. (2015). Forms of friendship: A person-centered assessment of the quality, stability, and outcomes of different types of adolescent friends. *Personality and Individual Differences*, *77*, 149-155.
<https://psycnet.apa.org/doi/10.1016/j.paid.2014.12.051>
- Hoza, B., Bukowski, W. M., & Beery, S. (2000). Assessing peer network and dyadic loneliness. *Journal of Clinical Child Psychology*, *29*(1), 119-128.
- Jacob, M. L., Suveg, C., & Whitehead, M. R. (2014). Relations between emotional and social functioning in children with anxiety disorders. *Child Psychiatry & Human Development*, *45*, 519-532.
- Kamper, K. E., & Ostrov, J. M. (2013). Relational aggression in middle childhood predicting adolescent social-psychological adjustment: The role of friendship quality. *Journal of Clinical Child & Adolescent Psychology*, *42*(6), 855-862.
<https://doi.org/10.1080/15374416.2013.844595>
- Kandel, D. B. (1978). Similarity in real-life adolescent friendship pairs. *Journal of Personality and Social Psychology*, *36*(3), 306-312.
- Kingery, J. N., Erdley, C. A., Marshall, K. C., Whitaker, K. G., & Reuter, T. R. (2010). Peer

- experiences of anxious and socially withdrawn youth: An integrative review of the developmental and clinical literature. *Clinical Child and Family Psychology Review*, 13(1), 91-128. <https://doi.org/10.1007/s10567-009-0063-2>
- Kitts, J. A., & Leal, D. F. (2021). What is(n't) a friend? Dimensions of the friendship concept among adolescents. *Social Networks*, 66, 161-170. <https://doi.org/10.1016/j.socnet.2021.01.004>
- Ladd, G. W., Kochenderfer-Ladd, B., Eggum, N. D., Kochel, K. P., & McConnell, E. M. (2011). Characterizing and comparing the friendships of anxious-solitary and unsociable preadolescents. *Child Development*, 82(5), 1434-1453.
- Laursen, B. (2017). Making and keeping friends: The importance of being similar. *Child Development Perspectives*, 11(4), 282-289.
- Laursen, B., Bukowski, W. M., Aunola, K., & Nurmi, J. E. (2007). Friendship moderates prospective associations between social isolation and adjustment problems in young children. *Child Development*, 78(4), 1395-1404. <https://doi.org/10.1111%2Fj.1467-8624.2007.01072.x>
- Logis, H. A., Rodkin, P. C., Gest, S. D., & Ahn, H. J. (2013). Popularity as an organizing factor of preadolescent friendship networks: Beyond prosocial and aggressive behavior. *Journal of Research on Adolescence*, 23(3), 413-423.
- Martin, C. L., Fabes, R. A., & Hanish, L. D. (2018). Differences and similarities: The dynamics of same- and other-sex peer relationships. In W. M. Bukowski, B. Laursen, & K. H. Rubin (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 429-446). New York, NY, US: the Guilford Press.
- McDonald, K. L., & Asher, S. R. (2018). Peer acceptance, peer rejection, and popularity: Social-

cognitive and behavioral perspectives. In W. M. Bukowski, B. Laursen, & K. H. Rubin (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 429-446). New York, NY, US: the Guilford Press.

McKirahan, J. M., Lease, A. M., Neuharth-Pritchett, S., & Kwon, K. (in press). Role of the match between individual levels of anxious-withdrawal and affiliation group characteristics in predicting distress: Implications for choice of peer partners. *The Elementary School Journal*.

Menzer, M. M., McDonald, K. L., & Rubin, K. H. (2012) Observed gossip moderates the link between anxious withdrawal and friendship quality in early adolescence. *International Journal of Developmental Sciences*, 6, 191-202. <http://dx.doi.org/10.3233/DEV-1211079>

Oberle, E., Schonert-Reichl, A., & Thomas, K. C. (2010). Understanding the link between social and emotional well-being and peer-relations in early adolescence: Gender-specific predictors of peer acceptance. *Journal of Youth and Adolescence*, 39(11), 1330-1342. <https://doi.org/10.1007/s10964-009-9486-9>

Oh, W., Rubin, K. H., Bowker, J. C., Booth-LaForce, C., Rose-Krasnor, L., & Laursen, B. (2008). Trajectories of social withdrawal from middle childhood to early adolescence. *Journal of Abnormal Child Psychology*, 36(4), 553-566.

Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology*, 29(4), 611-621. <https://psycnet.apa.org/doi/10.1037/0012-1649.29.4.611>

Parker, J. G., Rubin, K. H., Erath, S. A., Wojslawowicz, J. C., & Buskirk, A. A. (2006). Peer relationships, child development, and adjustment: A developmental psychopathology

- perspective. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental Psychopathology: Theory and Method., Vol. 1, 2nd ed.* (pp. 419-493). Hoboken, NJ: John Wiley & Sons Inc.
- Poulin, F., & Dishion, (2008). Methodological issues in the use of peer sociometric nominations with middle school youth. *Social Development, 17*(4), 908-921.
- Rodkin, P. C., Farmer, T. W., Pearl, R., & Van Acker, R. (2000). Heterogeneity of popular boys: Antisocial and prosocial configurations. *Developmental Psychology, 36*, 14-24.
- Rubin, K. H., Bowker, J. C., Barstead, M. G., & Coplan, R. J. (2018). Avoiding and withdrawing from the peer group. In W. M. Bukowski, B. Laursen, & K. H. Rubin (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 322-348). New York, NY, US: the Guilford Press.
- Rubin, K. H., Bukowski, W. M., & Bowker, J. C. (2015). Children in peer groups. In M. H. Bornstein, T. Leventhal, & R. M. Lerner (Eds.), *Handbook of Child Psychology and Developmental Science: Ecological Settings and Processes., Vol. 4, 7th ed.* (pp 175-222). Hoboken, NJ: John Wiley & Sons Inc.
- Rubin, K. H., Coplan, R. J., & Bowker, J. C. (2009). Social withdrawal in childhood. *Annual Review of Psychology, 60*, 141-171.
<https://doi.org/10.1146%2Fannurev.psych.60.110707.163642>
- Rubin, K. H., Wojslawowicz, J. C., Rose-Krasnor, L., Booth-Laforce, C., & Burgess, K. B. (2006). The best friendships of shy/withdrawn children: Prevalence, stability, and relationship quality. *Journal of Abnormal Child Psychology, 34*(2), 143-157.
<https://doi.org/10.1007/s10802-005-9017-4>
- Schneider, B. H. (1999). A multimethod exploration of the friendships of children considered socially withdrawn by their school peers. *Journal of Abnormal Child Psychology, 27*(2),

115-123. <https://psycnet.apa.org/doi/10.1023/A:1021959430698>

Scholte, R. H. J., Overbeek, G., ten Brink, G., Rommes, E., de Kemp, R. A. T., Goossens, L., & Engels, R. C. M. E. (2009). The significance of reciprocal and unilateral friendships for peer victimization in adolescence. *Journal of Youth and Adolescence*, *38*, 89-100.

Thomas, K. K., & Bokwer, J. C. (2012). An investigation of desired friendships during early adolescence. *Journal of Early Adolescence*, *33*(6), 867-890.

Troop-Gordon, W., MacDonald, A. P., & Corbitt-Hall, D. J. (2019). Children's peer beliefs, friendlessness, and friendship quality: Reciprocal influences and contributions to internalizing symptoms. *Developmental Psychology*, *55*(11), 2428-2439.
<https://psycnet.apa.org/doi/10.1037/dev0000812>

Veenstra, R., Dijkstra, J. K., & Kreager, D. A. (2018). Pathways, networks, and norms: A sociological perspective on peer research. In W. M. Bukowski, B. Laursen, & K. H. Rubin (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 45-63). New York, NY, US: the Guilford Press.

Zhang, F., You, Z., Fan, C., Gao, C., Cohen, R., Hseuh, Y., & Zhou, Z. (2014). Friendship quality, social preference, proximity prestige, and self-perceived social competence: Interactive influences on children's loneliness. *Journal of School Psychology*, *52*, 511-526. <https://doi.org/10.1016/j.jsp.2014.06.001>