

Being Alone, Playing Alone, and Acting Alone: Distinguishing among Reticence and Passive and Active Solitude in Young Children¹

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Abstract:

Three forms of solitude were studied in young children—reticence (onlooker and unoccupied behavior), solitary-passive behavior (solitary-constructive and -exploratory play), and solitary-active behavior (solitary-functional and -dramatic play). 48 4-year-old children grouped in quartets of same-sex unfamiliar peers were observed in several situations. Mothers completed the Colorado Temperament Inventory. Results indicated that (1) solitary-passive, solitary-active, and reticent behaviors were nonsignificantly intercorrelated; (2) reticence was stable and associated with the demonstration of anxiety and hovering near others, whereas solitary-passive and solitary-active play were stable yet unrelated to anxiety and hovering; (3) reticence during free play was generally associated with poor performance and displays of wariness in several other social situations, while solitary-passive and -active play were not; (4) reticence was associated with maternal ratings of child shyness, while solitary-active behavior was associated with maternal ratings of impulsivity. Results are discussed in terms of the underlying mechanisms associated with reticence and passive and active withdrawal.

Article:

Theoretical approaches to the study of social withdrawal, shyness, and social inhibition are numerous and diverse (see Rubin Asendorpf, 1993, for recent reviews). Nevertheless, it is generally believed that the child's production of high frequencies of nonsocial behavior while in an ostensibly social situation reflects psychological maladaptation of some form. For example, several researchers have suggested that the frequent display of nonsocial behavior reflects a biologically based, abnormally low threshold for arousal in the face of novel social stimulation (e.g., Kagan et al., 1984; Kagan, Reznick, Snidman, 1988). Others propose that nonsocial activity is the natural result of the interplay between biologically based temperamental factors and the insecure quality of the emerging parent-child relationship (e.g., Rubin & Lollis, 1988;

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Rubin & Mills, 1991). Yet others suggest that nonsocial activity in the social milieu indicates the existence of a psychologically discomfoting conflict between social approach and avoidance motivations (e.g., Asendorpf, 1990). Finally, there are those who note that solitude may result from peer rejection rather than from an unwillingness or an inability to engage others in interaction (e.g., Rubin & Mills, 1988).

Despite decidedly different explanatory proposals for the production of nonsocial play, researchers have not typically distinguished between the variety of behaviors that children can display when playing alone. Thus, for the most part, the terms "behavioral solitude," "social withdrawal," and "nonsocial play" are used interchangeably to connote a wide variety of underlying mechanisms.

A decade ago, Rubin (1982) distinguished between two clusters of solitary behaviors that children may engage in; he labeled these solitary-passive and solitary-active behaviors. *Solitary-passive* behavior includes the quiescent exploration of objects and/or constructive activity while playing alone. Rubin argued that, in *early* childhood, such behavior is positively reinforced by teachers, parents, and peers and that its display is associated with competent problem solving as well as with peer acceptance. However, he also proposed that, by mid- *childhood*, even though the "face" of passive withdrawal remained identical, its psychological meaning changed (Rubin & Asendorpf, 1993). Thus, the frequent display of passive withdrawal during free play was thought to be viewed by the child's community of peers as deviant from social behavioral norms (Younger & Daniels, 1992) and as reflecting psychological uncertainty, negative self-appraisals, and insecurity in one's relationships (Rubin, Hymel, & Mills, 1989; Rubin & Mills, 1988). Such solitary activity in mid- and late childhood was posited to result in peer rejection.

In contrast, during both early and middle childhood, the frequent display of *solitary-active* play was thought to reflect psychological immaturity and impulsivity (Rubin, 1982; Rubin & Mills, 1988). Such behavior, *when produced while in a social* group, is characterized by repeated sensorimotor actions with or without objects and/or by solitary dramatizing. Because of its infrequent, yet highly salient occurrence, and its association with impulsivity and aggression, this cluster of behaviors was postulated to correlate with peer rejection from as early as the preschool years (Rubin, 1982; Rubin & Mills, 1988). In short, Rubin's distinction between passive and active withdrawal provided distinctions concerning these different forms of solitary behavior; as such, it was argued that researchers who aggregate all forms of solitude in their studies may unknowingly add conceptual confusion to the literature.

More recently, Asendorpf (1991), in borrowing from Parten (1932), described a third cluster of solitary behaviors consisting of prolonged looking at the partner without accompanying play (onlooking behavior), and being unoccupied. This cluster of behaviors, when demonstrated in the face of social stimuli (in both novel and familiar circumstances), will henceforth be referred to as *reticent* behavior. This term is related to but identical to the concept of *inhibition*, which has typically referred to wariness in the face of both social and nonsocial novelty (e.g., Kagan et al., 1984). Asendorpf (1990) posited that, in early childhood, this behavioral aggregate reflected the existence of a social approach—social avoidance conflict, especially when produced in the company of *unfamiliar* others. In his research with 4-year-olds, Asendorpf (1991) found that reticent behavior during dyadic play with an unfamiliar peer was statistically unrelated to

solitary- passive behavior. This initial finding suggests that, among preschool children, solitary-passive and reticent behaviors reflect different underlying psychological mechanisms. Nevertheless, Asendorpf proposed, and found, that with increasing age beyond the preschool years, *reticent* behavior gradually merged with solitary-passive behavior. In other words, during the mid- and later years of childhood, behaviorally reticent and fearful children would display high frequencies of both unoccupied and onlooking behavior and solitary-passive play. According to Asendorpf, this increased association represented reticent children's increasing attempts to cope with the fearfulness and uncertainty of unfamiliar social situations. These coping efforts result in the retreat to solitary passivity during the mid- and late childhood years.

Thus, the first goal of the present study was to partially replicate a portion of Asendorpf's (1991) recent study by examining the heterogeneity of social solitude in *quartets* of 4-year-old children. The use of quartets, as opposed to dyads (e.g., Asendorpf, 1991), was thought to more closely approximate the social climate of a preschool setting. We predicted that, among preschoolers, solitary- passive, reticent, and solitary-active behaviors would represent conceptually and empirically distinct subtypes of solitude; that is, we expected that the frequencies with which children produced these different forms of solitude would be nonsignificantly intercorrelated.

The second goal of this study was to investigate possible psychological mechanisms that may underlie these subtypes of nonsocial play. Reticent behaviors (onlooker and unoccupied behavior) were thought to represent social withdrawal in the face of extreme social anxiety. It was proposed that reticence results from an attempt to cope with the evocation of anxiety produced by social stimulation. If reticence mirrors an approach-avoidance conflict, one might expect the reticent child to hover near others without attempting to join in ongoing play and, also, to display behavioral markers of social anxiety and wariness (e.g., automanipulatives, crying). Furthermore, it was anticipated that children who displayed a high frequency of reticent behavior would receive high maternal ratings of social fear and anxiety. Finally, because reticent behavior was thought to represent a *trait* as opposed to a *state* variable, it was expected to be highly stable over time and associated with characteristic behaviors (e.g., off-task-unoccupied behavior, speech reticence) in a number of social settings other than free play.

Following from Rubin (1982), solitary- passive behavior was posited to be a benign form of preschool nonsocial activity. Indeed, we hypothesized that it reflected an object orientation rather than a person orientation (Jennings, 1975). Thus, solitary-passive play was *not* expected to be associated with indices of social anxiety or wariness; nor was it expected to be associated with indices of noncompliant, non-task-oriented behavior or impulsivity.

Finally, consistent with Rubin (1982), solitary-active behavior was thought to represent impulsivity and immaturity. Notwithstanding its expected low frequency of occurrence, solitary-active play was predicted to be associated with the demonstration of "goofing off" and disruptive behaviors during compliancy tasks, and not to be associated with indices of anxiety or fearfulness. As well, an association was expected between solitary-active play and maternal ratings of impulsivity.

To summarize, the major goal of this study was to investigate the heterogeneity of socially withdrawn behaviors in quartets of preschool-age children. Three subtypes of withdrawn behaviors were identified: (1) reticence (onlooker, unoccupied behavior), (2) solitary-passive activity (solitary-constructive, solitary-exploratory play), and (3) solitary-active activity (solitary-functional, solitary-dramatic play). The temporal consistency of these clusters of behaviors was examined, as well as their relations with markers of wariness, anxiety, noncompliance, and impulsivity in a number of social contexts and in maternal ratings of child shyness and impulsivity.

METHODS

Subjects

The participants in this study were 48 preschool children (20 males and 28 females) between the ages of 49 and 62 months (mean age = 54.63 months, SD = 3.91 months). The children were primarily of middle-class background, living with their families in or near College Park, Maryland. These children were part of a larger unselected sample of 61 children who were participating in a longitudinal study (see Calkins & Fox, 1992; Fox, 1989; for details).

Procedures

Participants were assigned to quartets of unfamiliar same-sex peers whose dates of birth were within 6 months of one another. The children were observed and their behaviors videotaped through a one-way mirror in a small playroom. Each visit consisted of five episodes: (1) unstructured free play (15 min); (2) a clean-up task (5 min); (3) show-and-tell speeches (10 min); (4) a ticket-sorting task (10 min); and (5) unstructured free play (15 min).

During the initial free play session, each group of four children was left alone in the play room, where a number of age-appropriate toys was accessible. The children were left undisturbed for the full 15-min period. A female research assistant then entered the room and told the children that the play period was over and that it was time to clean up. The children were asked to place all the toys in the room in a large cardboard box. In the event that one or more children were not assisting in the clean-up process, the research assistant would occasionally address the entire group with a comment such as, "It is time to clean up now."

At the completion of the clean-up, the research assistant asked the children to sit in a circle. Each child was then requested, in turn, to stand up and tell everyone about their last birthday party, "like show and tell in school." The research assistant encouraged the children to speak (e.g., "Would you like to tell us about your last birthday party?"); if and when necessary (e.g., after several seconds of silence), each child received verbal prompts (e.g., "What else did you do?" "Do you have anything else to tell us?") during their speeches.

After the speeches, the children were asked to sit at a small table where they were requested to "help out" the researcher by sorting several colored tickets into packets. Each child was asked to make ten packets, each of which contained one blue, red, yellow, and green ticket.

After the tickets were sorted (or after 10 min), the children were left alone again for a final free-play session. The box of toys was brought out, and the children were left undisturbed for 15 min.

Behavioral Coding

Free play sessions.—Behaviors in the first and second play sessions were coded with Rubin's (1989) Play Observation Scale. Ten-second intervals were coded for social participation (unoccupied, onlooking, solitary play, parallel play, conversation, group play) and the cognitive quality of play (functional, dramatic, and constructive play; exploration; games with rules). This resulted in approximately 60 coding intervals per child in each of the two free-play sessions.

Reticent behavior was computed by summing the proportion of coding intervals spent in unoccupied and/or onlooking behaviors. *Solitary-passive* behavior was computed by summing the proportion of coding intervals spent in solitary-exploratory and/or solitary-constructive play. Finally, *solitary-active* behavior was computed by summing the proportion of coding intervals spent in solitary-functional and/or solitary-dramatic play.

Additional variables coded during the free-play sessions included the proportion of observational intervals that included the display of (a) anxious behaviors (these included automanipulatives [e.g., digit sucking, hair pulling] and crying [e.g., whining, agitated crying not due to pain or physical discomfort]) and (b) time spent hovering (remaining inactive and/or not initiating an interaction for a period of at least 3 sec) at a short distance (less than 3 feet) from other children's social interaction.

Clean-up session.—During the 5-min clean-up session, the proportion of time each child spent *off-task-unoccupied* was recorded. Behaviors were considered off-task if they did not involve such actions as picking up toys, searching for toys to put away, or placing toys in the toy box. Unoccupied behavior was defined similarly to the behavioral variable of the same name used during the free-play sessions. Time spent off-task but engaged in any other type of alternate activity (e.g., goofing off, continuing to play with toys, disrupting others who were trying to clean up), was coded as *off-task-disruptive*.

Speeches.—The speeches were coded for (a) the duration of the entire speech episode and (b) the percentage of time each child actually spent speaking. The duration of the episode was defined as the amount of time that each child "held the floor," from the moment he or *she* was asked to speak until the researcher asked the next child to speak. The percentage of time spent talking was calculated by dividing the amount of "real" time during which each child verbally described their birthday party, by the duration of their speech episode.

Ticket-sorting task.—The ticket-sorting task was coded for the percentage of time each child spent off-task-unoccupied. In this episode, behaviors were considered off-task if they did not include such actions as picking up and placing the tickets in various piles or talking about the task at hand (e.g., "I just finished one pile"). Again, unoccupied behavior was defined as in the clean-up session and free-play sessions. Time spent in behavior that was off-task but engaging in alternate activities or behaviors (e.g., goofing off, disrupting others' attempts to sort tickets) was coded as off-task-disruptive.

Aggregate variables.—Two theoretically derived and empirically substantiated aggregate variables were computed from the variables assessed during the clean-up, speech, and ticket-sorting episodes. The first aggregate, thought to represent poor performance due to wariness and

anxiety, combined measures of (1) the proportion of *time* spent off-task-unoccupied during the cleanup session, (2) the proportion of time spent off-task-unoccupied during the ticket-sorting task, (3) the amount of time "taking the floor," and (4) the actual amount of time spent talking during the speech session. All intercorrelations were above .40 or below $-.38$ (in each case, $p < .01$).

Each of the four variables was standardized across subjects. Standardized scores for the two speech variables (episode duration and proportion of time actually speaking) were then reversed in order that high scores in all variables reflected poor performance. The aggregate variable was then computed by summing all of the standardized Z scores.

The second aggregate variable, thought to represent poor performance due to impulsivity and disruptiveness, combined measures of (1) the proportion of time spent off-task-disruptive during the clean-up session and (2) the proportion of time spent off-task-disruptive during the ticket-sorting task. The correlation between these indices was $r = .31$, $p < .02$. Again, each variable was standardized across subjects, and the aggregate variable was computed by summing the standardized Z scores.

Maternal Ratings

Mothers completed the Colorado Temperament Inventory (Buss & Plomin, 1984; Rowe & Plomin, 1977). This measure is composed of factors that assess maternal perceptions of various child characteristics (e.g., emotionality, activity level, shyness, soothability). Of specific interest to us were the factors assessing *shyness* (e.g., "child tends to be shy"), *activity level* (e.g., "child is always on the go"), and *emotionality* (e.g., "child often fusses and cries"). On a conceptual basis, the factors of activity level and emotionality were aggregated to create a score representing impulsivity (high emotionality plus high activity level). Thus, these two factor scores were standardized across subjects, and the subsequent Z scores were summed. The variables coded, and the sessions they were coded from, are summarized in Table 1.

Reliability

The Play Observation Scale (Rubin, 1989) and additional observational variables were coded by four independent observers. Interrater reliability on a randomly selected group of children totalling 30% of the sample (four quartets; 16 children) was calculated between pairs of observers using Cohen's kappa. For a full variable matrix, including social and cognitive play categories, and additional observational variables, computed kappas between pairs of raters ranged between $K = 0.71$ and $K = 0.86$. Intercoder disagreements were resolved by review and discussion.

RESULTS

The average proportion of time that children engaged in reticent, solitary-passive, and solitary-active behaviors in the first and second play sessions was as follows: *reticent-1* (first play session) = .20; *reticent-2* (second play session) = .19; *solitary-passive-1* = .17; *solitary-passive-2* = .16; *solitary-active-1* = .03; and *solitary-active-2* = .05. Descriptive indices for behavioral variables are presented in Table 2. Intercorrelations among behavioral variables are presented in Table 3.

Intercorrelations between indices of solitude.—A series of Pearson product-moment correlations (all $df = 46$) indicated, that in both the first and the second play sessions, neither index of solitude was significantly and positively associated with another. In the *first play session*, reticent behavior was significantly and *negatively* correlated with solitary-passive behavior, $r = -.27$, $p < .03$, and nonsignificantly but negatively associated with solitary-active behavior, $r = -.14$. Solitary-passive behavior was also not associated with solitary-active behaviors, $r = .01$. In the *second play*

TABLE 1
SUMMARY OF VARIABLES CODED

Episode	Variables Coded
(i) Free play	Proportion reticent behavior Proportion solitary-passive behavior Proportion solitary-active behavior Proportion wait and hover behavior Proportion anxious behaviors
(ii) Clean-up	Time off-task-unoccupied Time off-task-disruptive
(iii) Speeches	Length of speech episode Percent time spent talking
(iv) Ticket task	Time off-task-unoccupied Time off-task-disruptive
(v) Maternal ratings	Activity level Emotionality Impulsivity Shyness

TABLE 2
DESCRIPTIVE INDICES OF BEHAVIORAL VARIABLES
($n = 48$)

Variable	Mean	SD
First play session:		
Reticence .....	.20	.21
Solitary-passive .....	.17	.19
Solitary-active .....	.03	.09
Second play session:		
Reticence .....	.19	.22
Solitary-passive .....	.16	.16
Solitary-active .....	.05	.10
Across play sessions:		
Hovering .....	.03	.06
Anxious behaviors .....	.04	.14

session, reticent behavior was not found to be significantly related with solitary-passive play, $r = -.12$, and it was significantly and negatively correlated with solitary-active behavior, $r = -.25$, $p < .04$. Solitary-passive and -active behaviors were not correlated, $r = -.04$.

Stability across free-play sessions.— The next set of analyses involved an examination of the stability of reticent, solitary-passive, and solitary-active behaviors from the first to the second play session. Reticent, solitary-passive, and solitary-active behaviors were all significantly stable across play sessions, $r = .66$, $p < .001$; $r = .34$, $p < .009$; and $r = .51$, $p < .001$, respectively.

Associations between indices of solitude and markers of anxiety within free-play sessions.—Results from a series of Pearson product-moment correlations indicated that reticent behavior (averaged across play sessions) was significantly and positively correlated with hovering behavior (averaged across play sessions), $r = .53$, $p < .001$. Solitary-passive and solitary-active behaviors were not associated with hovering behavior, $r = -.13$, and $r = .00$, respectively.

Due to the low frequency of occurrence and comparatively high standard deviation of anxious behaviors during the two free-play sessions ($M = .04$, $SD = .14$), this variable was recoded in order to create two groups; the first group consisted of subjects who did not demonstrate any overt manifestations of anxiety during both free-play sessions ($n = 36$), while the second group contained children who demonstrated any amount of anxious behaviors during the free-play sessions ($n = 12$). A series of t tests (two-tailed, all $df = 46$) was performed comparing the "anxious" versus the "nonanxious" groups in terms of reticent, solitary-passive, and solitary-active behaviors (averaged across both play sessions). Results indicated that the "anxious" group engaged in more reticent behavior ($M = .35$, $SD = .30$) than the "nonanxious group" ($M = .14$, $SD = .14$), $t = 3.47$, $p < .001$. The two groups did not differ in terms of solitary-passive (M anxious = $.19$, $SD = .14$; M non-anxious = $.15$, $SD = .14$), or solitary-active behaviors (M anxious = $.03$, $SD = .03$; M nonanxious = $.05$, $SD = .09$).

Correlations between indices of solitude during free play and markers of anxiety, noncompliance, and impulsivity in nonfree-play sessions.—A series of Pearson product-moment correlations was computed relating the proportion of reticent, solitary-passive, and solitary-active behaviors (aver-

TABLE 3
INTERCORRELATIONS AMONG BEHAVIORAL VARIABLES ($n = 48$)

	2	3	4	5	6	7	8
1. Reticent-1 .....	.66***	-.27*	-.05	-.14	-.20	.27*	.25*
2. Reticent-2		-.13	-.13	-.04	-.25*	.10	.63***
3. Solitary-passive-1 .....			.34**	.01	.05	-.11	-.07
4. Solitary-passive-2				-.03	-.04	.07	-.15
5. Solitary-active-1 .....					.51***	-.06	.10
6. Solitary-active-2 .....						.00	-.05
7. Hovering-1							-.05
8. Hovering-2 .....							...

NOTE.—1 = first play session, 2 = second play session.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

aged across both the first and second play sessions) with the newly created aggregate variables representing wariness and impulsivity in the non-free-play sessions. Results indicated that *reticent* behavior during free play was significantly and *positively* associated with the wariness aggregate variable, $r = .55$, $p < .001$, and significantly and *negatively* associated with the impulsivity aggregate variable $r = -.34$, $p < .01$.

Solitary-passive and solitary-active behaviors during free play, however, were not found to be associated with both the wariness, $r = .12$, and $r = .02$, and impulsivity aggregate variables, $r = -.08$, and $r = -.12$, respectively.

Correlations between indices of solitude during free play and maternal ratings.—Results from a series of Pearson product-moment correlations indicated that maternal ratings of shyness were significantly and positively associated with the production of reticent behavior (averaged across play sessions), $r(44) = .50$, $p < .001$. Furthermore, shyness was not significantly related to either solitary-passive, $r = .03$, or solitary-active behavior, $r = .17$. An aggregate variable of maternal ratings of impulsivity, on the other hand, showed a significant *positive* association with solitary-active behavior, $r = .26$, $p < .04$, and nonsignificant relations with solitary-passive and reticent behavior, $r = .08$, and $r = -.08$, respectively.

DISCUSSION

This study both replicated and significantly extended the literature extant concerning the complex and multifaceted construct of social withdrawal in childhood. The central goal of this study was to investigate the existence of multiple forms of solitary behaviors, each potentially with its own underlying psychological mechanisms and associated behavioral manifestations.

Results from the present study succeeded in replicating attempts to establish the presence of multiple and independent forms of solitude in preschool-age children (e.g., Asendorpf, 1991; Rubin, 1982). Taken together, the results of these investigations make it clear that social withdrawal, as assessed behaviorally, has many overlapping "meanings."

Results from this study also indicated that children who demonstrated behavioral manifestations of anxiety were more likely to produce *reticent* behaviors but *not* more likely to produce solitary-passive or solitary-active behaviors than those who did not demonstrate anxiety. These data suggest that reticence may be a marker variable for anxiety in preschool-age children. Moreover, the high stability of reticent behaviors across time and setting, and its strong relation to maternal ratings of shyness, would seem to indicate that reticent behavior is indicative of a "trait" as opposed to a "state" variable.

Interestingly, reticent behavior was also associated with hovering on the edge of social groups. From a motivational point of view, hovering behavior has been interpreted as evidence for the existence of an approach-avoidance conflict (Asendorpf, 1991). A child may be desirous of peer group entry; thus he or she may inch up close to where others are playing. As he or she gets closer to the other children, he or she may be overcome with anxiety and fear and thus is left to observe the players while sitting on the edge of the social circle. Therefore, it has been argued that reticent behavior characterizes the behavioral manifestation of state shyness or the embodiment of an approach-avoidance conflict (Asendorpf, 1990).

Only 12 children in the present study, however, exhibited anxious behaviors, whereas almost all children demonstrated reticent behavior. The relation between these two behaviors has important implications for a motivational explanation of reticent behavior. Some children may display a significant amount of reticent behavior and anxiety. It may be that these children are fearful of social novelty (Buss, 1986) and that the motivational basis for their behavioral profile is high avoidance and *low* approach. If this was the case, one would expect these children to produce low frequencies of hovering behavior, reflecting a low interest in social engagement that may be too intrusive for these children. Alternatively, children may display a high amount of reticent

behavior that is not accompanied by overt displays of anxiety (it is also possible, however, that not all anxiety can be measured behaviorally). If the motivational basis of this behavior is high approach and high avoidance, one might expect a high amount of hovering behavior. Given the small size of the present sample, such subgroup analyses were not possible. Nevertheless, future investigations ought to address the different underlying meanings of reticent behavior in the context of approach-avoidance motivation.

Although stable across free-play sessions, passive withdrawal among 4-year-olds was not associated with indices of anxiety, social wariness, shyness, and impulsivity. In short, just as in a previous report of Rubin (1982), there was no evidence to suggest that the frequent display of *solitary-passive* behaviors in preschool children is socially maladaptive. These findings are in keeping with the notion that solitary-passive behavior among preschool-age children may reflect Asendorpf's (1990) motivational category of disinterest in social interaction (low approach and low avoidance motivation). Thus, preschool children who engage in a high frequency of solitary-passive behaviors may be socially competent but not always interested in extensive social interaction.

Importantly, however, although the "face" of passive withdrawal remains the same, the psychological meaning of the construct appears to change with increasing child age. For example, it has been speculated that solitary-constructive and exploratory play are encouraged by preschool teachers because (a) it maintains order in the class and (b) because it closely approximates the kind of behavior generally occurring in the typical elementary school class (Rubin, 1982). However, during the elementary school years, it would appear unlikely that, after having spent lengthy periods of time engaged in such activity, children would want to continue to play in a solitary-passive fashion when allowed to have a free choice of activity in or out of class. Thus, it is not surprising that Rubin has found that the demonstration of a high frequency of passive solitude at ages 7 and 9 years is associated with markers of social anxiety and negative self-perceptions of social competence (Rubin, 1985; Rubin & Mills, 1988). In short, it is argued conceptually and empirically that passive-solitude and reticence gradually merge to become a single behavioral index of wariness, fearfulness, and social anxiety in the middle and later years of childhood (Asendorpf, 1991). Moreover, given that solitary-passive and reticent behaviors become increasingly and negatively salient to the peer group during middle childhood (Rubin et al., 1989; Younger & Daniels, 1992), they are likely to result in peer rejection. Given these speculations concerning the developmental relation of reticent behavior and passive withdrawal, it would behoove researchers to examine the long-term associations (from early through middle and late childhood) between these two phenomena. Ostensibly, one would posit that reticence, as exhibited during the preschool period, would predict not only the frequent display of reticent behavior in middle childhood, but also the production of passive withdrawal.

The present findings were consistent with the results of previous studies (e.g., Rubin, 1982; Rubin & Mills, 1988) that have characterized *solitary-active* play as reflecting impulsivity and immaturity. Despite its very low frequency of occurrence (on the average, 3% of the time during free play), solitary-active play was highly stable across play sessions and associated with maternal ratings of impulsivity. A possible explanation for the failure to find a significant association between solitary-active play and *observational* indices of noncompliance and disruptiveness could be the low frequency of occurrence of both solitary-active and disruptive

behaviors. Further research, with longer observational periods, is required to further assess this form of solitary behavior and its implications for the preschool- and school-aged child.

Finally, it is apparent that this study has several important implications. For one, it seems clear that "solitude" is an insufficient criterion for characterizing children as "socially withdrawn." "Being alone," or reticence, as opposed to "playing alone," or solitary-passive or solitary-active activities, appears to represent a form of solitude that may be indicative, in the short run, and predictive, in the long run, of social anxiety and felt insecurity in social situations. "Playing alone" in an active fashion may reflect immaturity and impulsivity. For another, given the growing literature, it seems reasonable to suggest that the meaning of different forms of solitude changes with age. Thus, future studies are required to investigate the developmental implications of "being alone" and "playing alone" in early childhood.

REFERENCES

- Asendorpf, J. (1990). Beyond social withdrawal: Shyness, unsociability and peer avoidance, *Human Development*, 33, 250-259.
- Asendorpf, J. (1991). Development of inhibited children's coping with unfamiliarity. *Child Development*, 62, 1460-1474.
- Buss, A. H. (1988). A theory of shyness. In W. H. Jones, J. M. Cheek, & S. R. Briggs (Eds.), *Shyness: Perspectives on research and treatment*. New York; Plenum.
- Buss, A. H., & Plomin, R. (1984). *Temperament: Early developing personality traits*. Hillsdale, NJ: Erlbaum.
- Calkins, S., & Fox, N. (1992). The relations among infant temperament, security of attachment, and behavioral inhibition at twenty-four months. *Child Development*, 63, 1456-1472.
- Fox, N. (1989). Psychophysiological correlates of emotional reactivity during the first year of life. *Developmental Psychology*, 25, 364-372.
- Jennings, K. D. (1975). People versus object orientation, social behavior, and intellectual abilities in children. *Developmental Psychology*, 11, 511-519.
- Kagan, J., Reznick, J. S., Clarke, C., Snidman, N., & Garcia-Coll, C. (1984). Behavioral inhibition to the unfamiliar. *Child Development*, 55, 2212-2225.
- Kagan, J., Reznick, J. S., & Snidman, N. (1988). Biological basis of childhood shyness. *Science*, 240, 167-171.
- Parten, M. B. (1932). Social participation among preschool children. *Journal of Abnormal and Social Psychology*, 27, 243-269.
- Rowe, D. C., & Plomin, R. (1977). Temperament in early childhood. *Journal of Personality Assessment*, 41, 150-156.
- Rubin, K. H. (1982). Non-social play in preschoolers: Necessary evil? *Child Development*, 53, 651-657.
- Rubin, K. H. (1985). Socially withdrawn children: An at risk" population? In B. Schneider, K. H. Rubin, & J. Ledingham (Eds.), *Children's peer relations: Issues in assessment and intervention* (pp. 125-139). New York: Springer-Verlag.
- Rubin, K. H. (1989). *The Play Observation Scale (POS)*. Waterloo: University of Waterloo.
- Rubin, K. H., & Asendorpf, J. (1993). Social withdrawal, inhibition, and shyness in childhood: Conceptual and definitional issues. In K. H. Rubin & J. Asendorpf (Eds.), *Social withdrawal, inhibition and shyness in children*. Hillsdale, NJ: Erlbaum.

- Rubin, K. H., Hymel, S., & Mills, R. S. L. (1989). Sociability and social withdrawal in childhood: Stability and outcomes. *Journal of Personality, 57*, 238-255.
- Rubin, K. H., & Lollis, S. (1988). Peer relationships, social skills and infant attachment: A continuity model. In J. Belsky (Ed.), *Clinical implications of infant attachment* (pp. 219-252). Hillsdale, NJ: Erlbaum.
- Rubin, K. H., & Mills, R. S. L. (1988). The many faces of social isolation in childhood. *Journal of Consulting and Clinical Psychology, 6*, 916-924.
- Rubin, K. H., & Mills, R. S. L. (1991). Conceptualizing developmental pathways to internalizing disorders in childhood. *Canadian Journal of Behavioral Science, 19*, 86-100.
- Younger, A. J., & Daniels, T. M. (1992). Children's reasons for nominating their peers as withdrawn: Passive withdrawal versus active isolation? *Developmental Psychology, 28*, 955-960.