

Feedback Seeking in Children and Adolescents: Associations With Self-Perceptions, Attachment Representations, and Depression

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Because the feedback children and adolescents receive is important to their development, 2 experimental studies were designed to examine children's ($M = 12$ years) and adolescents' ($M = 17$ years) active selection of the quality of feedback they wish to receive. In both studies evidence emerged that participants' self-perceptions influence their feedback seeking. Participants with positive self-perceptions sought more positive feedback than participants with negative self-perceptions and sought more positive feedback than expected by chance. Participants with negative self-perceptions lacked this tendency to seek positive feedback and sometimes sought less positive feedback than expected by chance. As expected, depression and attachment-related measures were also associated with participants' feedback seeking. Contributions of feedback-seeking patterns to stability and change in children's and adolescents' development are discussed.

An important aspect of children and adolescents' environments is the nature of the information about themselves they receive, that is, feedback from the environment. Individuals who receive considerable positive information about themselves could reasonably be viewed as being immersed in a more positive, supportive environment than individuals who receive negative information about themselves, and indeed the benefits of receiving positive information about the self are thought to be far reaching (Harter, 1998). It has been widely agreed, in fact, that the feedback provided by others is centrally important to the development of individuals' perceptions of themselves (e.g., Cooley's, 1902, looking-glass self; see also Baldwin, 1897; Bowlby, 1980; Mead, 1934; Rogers, 1959; Sullivan, 1953).

People, of course, have characteristics that contribute to the sort of feedback they receive. From the moment of birth, one's characteristics—gender, health, physical appearance—all contribute to the nature of the responses he or she will receive from caregivers (see Bell & Harper, 1977, for a review). Children are also likely to behave in ways that contribute to their receiving certain types of feedback. There is evidence that coercive children elicit negative feedback from their parents (Patterson, 1982) and that children who are aggressive and disruptive in school elicit negative feedback from teachers and peers (Dodge & Frame, 1982; Gottman, Gonso, & Rasmussen, 1975). As children become adolescents, it is likely that they contribute to the feedback they receive not only from parents and peers, but from potential romantic partners as well. Another way children and adolescents can contribute to the feedback they receive is through their active seeking of certain kinds of feedback in preference to others. This can happen in relation to any area of performance (e.g., sports, academics, creative performance). Children can directly ask others for feedback, and they can select the source of feedback to increase the likelihood of receiving certain feedback. They can thoroughly attend to feedback (e.g., by carefully reading teacher comments on schoolwork) or they can ignore it. To date, there has been little empirical examination of the active role children and adolescents may play in selecting the information about themselves they receive. Because the feedback about themselves they receive is likely to influence children's

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We are grateful for the assistance of the teachers and students from the participating schools. Wayne H. Bylsma, William E. Cross Jr., Paul Hanges, and Jodi Jacobson Chernoff provided helpful suggestions and/or generous assistance with data analysis. Lisa J. Berlin and Phillip R. Shaver provided thoughtful comments on an earlier draft of the manuscript. We gratefully acknowledge the assistance of Mindy S. Rodenberg, who supervised data collection for Study 2. These studies were supported by the Trumbo Fund of the Psychology Department of The Pennsylvania State University, by a grant from the National Institute for Child Health and Human Development (HD36635), and by a National Research Service Award (MH12802) from the National Institute of Mental Health to Brooke C. Feeney.

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development, it is important to understand all contributors to this feedback.

Given that several theorists have proposed that high self-esteem contributes to positive affect (Bandura, 1978; Harter, 1986; Kanfer, 1980; for empirical support, see, e.g., Harter & Connell, 1984), it would be reasonable to expect that to maintain an affectively satisfying high level of self-esteem, children and adolescents would tend to seek favorable information about themselves. This expectation also derives from self-enhancement theory, according to which people are highly motivated to receive positive evaluations (e.g., Jones, 1973; Shrauger, 1975).

A contrasting perspective—that of self-verification theory—leads to a hypothesis that children may sometimes seek negative feedback. According to self-verification theory, there are times when it is more important to an individual to receive feedback that verifies his or her own self-view, even if this self-view is negative, than to receive positive feedback (Swann, 1983, 1990). Self-verification theory assumes that people work to confirm their firmly held self-conceptions because of a wish for psychological coherence (Swann, Rentfrow, & Guinn, 2002; see also Heider, 1958; Kelly, 1955; Lecky, 1945). Swann and his colleagues have proposed that this tendency is useful to people for two important reasons: one intrapsychic, one interpersonal. First, self-verifying information is comforting because it convinces individuals that they know themselves: “If I don’t know myself, what can I know?” Second, self-verifying information means that individuals’ social partners perceive them “correctly” and that the partners are therefore likely to treat them in familiar and understandable ways (Swann, Wenzlaff, Krull, & Pelham, 1992). Empirical evidence in support of the proposition that individuals self-verify for the intrapsychic and interpersonal reasons that Swann and his colleagues proposed came from a study in which adults were asked to verbalize their thoughts during the decision-making process of selecting feedback (Swann, Stein-Seroussi, & Giesler, 1992). Attachment theory also contains propositions relevant to the issue of why individuals might seek feedback that is consistent with their self-views. Bowlby (1973) suggested that children are biologically predisposed to feel more secure when the environment is familiar and predictable, and when others behave in predictable ways. According to Bowlby, children strive to preserve familiar social and physical environments because such familiarity means that dangers can be more easily noticed. Sroufe and Fleeson (1986) proposed that children

tend to re-create familiar social environments as part of an attempt to maintain coherence of the self.

Recent theory and research about children’s processing of social information converge with self-verification theory and research, and lend support to the expectation that children may sometimes seek negative feedback. Bowlby (1980), for instance, proposed that children develop a “representational model of the self” (similar to Piaget’s, 1937/1954, notion of self-schema) and that children selectively attend to and remember (i.e., are more interested in) information consistent with this model. Crick and Dodge (1994) proposed that children interpret ambiguous stimuli in ways that are consistent with their own past experiences and self-perceptions, and Dodge and Tomlin (1987) provided empirical support for the notion that self-perceptions influence information processing. If feedback seeking operates in ways similar to these other aspects of information processing, it may be that when self-perceptions are negative, the tendency to process information in ways consistent with these self-perceptions means that some individuals prefer negative feedback.

Furthermore, experimental findings that children’s self-views relate to their information-seeking and attention to feedback about task mastery also guided our expectations that at times children would prefer negative feedback. Bandura (1990) provided evidence that children ignore feedback that conflicts with their own self-perceptions: Children, given the opportunity to view feedback that might help them master a task, ignored the feedback if they had a negative self-view about their competence related to the task. Ruble and Flett (1988) found that children’s math ability (and presumably their perceptions of this ability) guided their self-evaluative information seeking such that low-ability children preferred feedback that would show them in a relatively negative light (see also Butler, 1992, for another examination of children’s information seeking in an achievement context).

In the two studies reported here, we extended previous research examining the influence of self-perceptions on children’s and adolescents’ feedback seeking by focusing on social-emotional content. The studies examined 7th- and 11th-grade students’ active selection of the quality of the feedback they wish to receive from unfamiliar peers. We expected that children’s self-perceptions would relate to their feedback seeking. Furthermore, in both studies, we examined the theoretically predicted role of attachment in feedback seeking. Finally, in Study 2, we also examined the role of children’s depression.

Study 1

We conducted our first study with seventh-grade students to examine feedback seeking in children. We modified a research paradigm created and used extensively by Swann and his colleagues to examine feedback seeking in adults (Swann, Pelham, & Krull, 1989; Swann & Read, 1981a, 1981b; Swann, Wenzlaff, et al., 1992), and we provided children with the opportunity to choose to view either positive or negative feedback about themselves. We told the participants that, as part of a study about making friends, we would provide information about them to seventh graders from another school. Participants were told that the students from the other school would provide feedback about the participants and that the participants would have an opportunity to view some of the feedback. Following Swann (e.g., Swann et al., 1989), it was clear, although not overtly stated, that some selections would yield positive feedback and some would yield negative feedback.

We examined three hypotheses in Study 1. Our first hypothesis was that feedback seeking in a particular domain is related to children's perceived competence (which may, in fact, reflect actual competence) in that domain. We examined this hypothesis in several ways. First, focusing on between-group differences, we expected that children who perceive themselves as competent in a particular domain would seek more positive feedback than children who perceive themselves as relatively incompetent in that domain. Second, we focused on within-group differences and examined whether children would prefer feedback that confirms their self-perception in a given domain rather than feedback that disconfirms their self-perception in that domain. We expected that children perceiving themselves as competent in a given domain would prefer positive feedback. We also expected that children perceiving themselves as relatively incompetent in a given domain would prefer negative feedback. Third, we asked the question: If a child reports high competence in one domain and low competence in another, does his or her feedback seeking vary as a function of domain? We did not expect that some children would generally seek positive feedback whereas others would generally seek negative feedback. Instead, we expected that children would seek more positive feedback in a domain in which they perceived themselves to be competent than in one in which they perceived themselves to be incompetent. Furthermore, we expected that children would prefer positive feedback in the domain in which they perceived

themselves to be competent and that they would prefer negative feedback in a domain in which they perceived themselves to be incompetent.

Our second hypothesis was that feedback seeking about one's global worth is related to children's perceptions of global worth. We expected that children with high global self-worth would seek more positive feedback than children with low global self-worth. We also examined within-group differences and examined whether children would prefer feedback that confirms or disconfirms their self-perception. We expected that children with high global self-worth would prefer positive feedback and that children with low global self-worth would prefer negative feedback.

For these first two hypotheses, our construction of high- and low-self-perception groups was based on prior research examining self-verification processes in adults. According to Swann, the use of groups of individuals whose self-perceptions are strongly positive and strongly negative should provide the clearest test of group differences in feedback seeking (e.g., Swann, 1990; Swann, Stein-Seroussi, et al., 1992). We therefore created self-perception groups that consisted of individuals whose self-perception scores fell in the top and bottom 20% of the sample.

Our third hypothesis grew out of our interest in understanding the connection between feedback seeking and quality of attachment. According to attachment theory, secure attachment is related to children's information processing in ways that contribute to a positive environment for themselves (Bowlby, 1980; Cassidy, 1988; Cassidy, Kirsh, Scolton, & Parke, 1996; Sroufe & Fleeson, 1986). Our conceptual model linking attachment and feedback seeking rests on findings that secure attachment is associated with positive self-views, not in relation to specific competence domains (e.g., athletics) but in relation to one's global view of being a good and valuable person (Bowlby, 1988; Cassidy, 1988; Sroufe, 1990). Thus, we expected that secure children would be more likely to seek positive information about their global self-worth than would insecure children. Furthermore, we expected that secure children would prefer positive feedback and that insecure children would prefer negative feedback. According to our model, the connection between attachment security and positive feedback seeking is mediated by the child's perceptions of global self-worth. That is, attachment security contributes to global self-worth, which in turn contributes to feedback seeking. Our final analysis tests this mediational model.

Method

Participants

Participants were 132 seventh-grade students (69 females, 63 males; >80% Caucasian) recruited from a public school serving working and middle-class families in a small central Pennsylvania town. Participants ranged in age from 11 to 14 years ($M = 12.40$, $SD = .06$). All seventh-grade students in the school were invited to participate; all those who received parental permission and agreed to participate (65%) were included as participants. Sample size varies slightly across analyses because of missing data.

Measures

Self-Perception Profile for Adolescents (SPA; Harter, 1988). Four SPA subscales, each corresponding to a different domain, were used to assess children's perceptions of their own competence: scholastic competence, athletic competence, social acceptance, and physical appearance. We also created a subscale tapping perceptions of competence in arts and crafts (to tap another domain similar to one Swann and his colleagues examined: arts and music; Swann et al., 1989). The SPA subscale tapping global self-worth was also used.

For each of the five items on each subscale, participants read two statements. One statement described an individual who possesses a particular quality in a domain, and the other statement described an individual who does not possess that quality. Participants had to decide first which description best described them and then decide whether the description was "sort of true for me" or "really true for me." This format was thought to lower the tendency for participants to give socially desirable responses because it divides participants into two types of groups rather than positioning them along a good-bad dimension (Harter, 1988). A sample item from the social acceptance subscale is "Some teenagers find it hard to make friends BUT for other teenagers it's pretty easy." A sample item from the arts and crafts scale is "Some teenagers are very talented in arts and crafts BUT other teenagers are not very talented in arts and crafts." The items are scored from 1 to 4, with 4 representing the most competence. Items from all subscales were interspersed and presented as a single questionnaire. The five items on each subscale were averaged to create a score ranging from 1 to 4 for each domain. In a reliability study, a consistent factor structure supporting these subscales emerged across four samples

(Harter, 1988), and the internal consistency for the five subscales used here ranged from .77 to .91. Internal consistency scores (alpha) for the six scales in the present study were: .83 for scholastic competence, .85 for athletic competence, .78 for social acceptance, .82 for physical appearance, .87 for arts and crafts, and .80 for global self-worth.

Security Scale (SS; Kerns, Klepac, & Cole, 1996). This scale was used to assess self-reported attachment security to mother (sample items: "Some kids find it easy to trust their mom BUT other kids are not sure if they can trust their mom" and "Some kids go to their mom when they are upset BUT other kids do not go to their mom when they are upset"). Children were asked to decide which statement was most characteristic of them and then note if it was "really true" or "sort of true." This format, designed to reduce social desirability, yielded a 4-point scale. Attachment groups are created by classifying children whose security scores are in the top two thirds of the distribution as secure and children whose security scores are in the bottom one third as insecure. Good psychometric properties (internal consistency, test-retest reliability, and predictive validity) have been reported (Kerns et al., 1996). Kerns et al. (1996) reported significant correlations between the SS and peer ratings of acceptance, observer ratings of friendship quality, and mother reports of acceptance of the child, all of which previously have been associated with attachment security (Thompson, 1999). The mean and standard deviation of the present sample ($M = 3.15$, $SD = .57$) are nearly identical to those in the Kerns et al. sample ($M = 3.24$, $SD = .57$); internal consistency (alpha) in this sample is .89.

Filler items. These items consisted of a series of questionnaires tapping children's relations with their parents, classmates, and friends; their functioning in a variety of areas; and their opinions about the nature of making friends. These items were included to contribute to the participants' belief that students at another school would have enough information to make judgments about them.

Feedback seeking. For each of six domains (e.g., scholastic competence, social acceptance), participants were shown a series of six questions and told that a student from another school had responded to the questions as a way of describing his or her view of the participant. The feedback-seeking questions were the (slightly modified) questions used by Swann and his colleagues (Swann et al., 1989; both the form and content of the original questions were occasionally changed to make the questions appropriate for seventh graders). For each domain, the six

questions consisted of three questions considered to indicate a desire for positive feedback and three questions considered to indicate a desire for negative feedback. For example, on the dimension of scholastic competence, a question considered to indicate a desire for positive feedback was "Why should this person have great confidence in their ability to do well in school?" and a question considered to indicate the desire for negative feedback was "Why do you think this person might get a poor report card?" For each domain, participants selected three questions for which they wanted to see answers. After participants selected three questions related to one domain, they were presented with the list of six questions for another domain. For each domain, each participant received two nonindependent scores ranging from 0 to 3: one indicating the number of positive feedback questions selected and one indicating the number of negative feedback questions selected. The creation of positive and negative feedback-seeking scores is statistically redundant; the amount of positive feedback a child sought, by definition, determined how much negative feedback he or she sought.

Procedure

Researchers visited 10 individual classrooms, each consisting of 7 to 19 participants, three times. During the first visit, researchers described the study to the students, answered questions, and distributed permission forms. Students were told that researchers were interested in studying "how kids get to know each other." The study was presented to the students as containing three parts: (a) participants would describe themselves by completing a series of questionnaires, (b) the questionnaires (with identifying information removed) would be shown to students from a different school who would provide feedback by answering questions (posed by the researcher) about the participants based on what they had learned from the questionnaires, and (c) the participants would have the opportunity to see how students at the other school responded to some of the questions about the participants.

During the second visit, participants completed a series of questionnaires: a modified version of the SPA (Harter, 1988), an attachment measure, and several questionnaires that were used as filler items. The purpose of the filler items was to give the participants a sense that they had provided enough information for other students to answer questions about them.

During the third visit, researchers reminded the participants that their questionnaires had been shown to students from another school and that these students had written answers to a list of questions about the participants. Participants were told that because of time limitations, they would not have time to view all of the answers. Participants were told that they would be permitted to choose which answers (feedback) they would like to see. It is important to note that participants' selections of which feedback to view (i.e., selection of either positive or negative feedback) constituted the study's key data. The actual feedback the participants then received (which, at the principals' request, was edited to contain only positive information) did not influence the data collected. In a debriefing, researchers explained to the participants that although we truly did not have time for them to see all the responses, we were particularly interested in learning which questions they wanted to examine. Participants were told that we were interested in their choices because this knowledge could help us understand children's relationships.

Results and Discussion

Analyses With Gender

Analyses including gender as a factor revealed no main or interaction effects of gender. Gender, therefore, was not included in the analyses presented here.

Feedback Seeking and Perceived Competence

We examined the connection of perceived competence and feedback seeking in several ways. First, we examined whether children's feedback seeking in each domain (i.e., scholastic competence, athletic competence, arts and crafts ability, social acceptance, and physical appearance) was associated with their self-perceptions for that domain. For the entire sample, medians on the 4-point SPA domain scales ranged from 2.6 to 3.2; intercorrelations of scale scores ranged from $-.11$ to $.44$ ($M = .16$). A series of t tests demonstrated that children in the high-competence group sought significantly more positive feedback than did children in the low-competence group in all five domains (see Table 1).

Second, to examine whether children prefer feedback that confirms their self-perceptions rather than disconfirms their self-perceptions in that domain, we used t tests to examine whether, for each domain, the mean amount of positive feedback seeking for each

Table 1

Study 1: Means and Standard Deviations of Positive and Negative Feedback Seeking as a Function of Perceived Competence Group

Type of feedback seeking in each domain	Domain-specific perceived competence group		Between-groups <i>t</i> [degrees of freedom]	Cohen's <i>d</i>
	High-perceived-competence group (top 20%)	Low-perceived-competence group (bottom 20%)		
Scholastic competence (<i>n</i> = 57)				
Positive feedback	2.03 (.92)	1.13 (.85)	3.79*** [55]	1.02
Negative feedback	.97 (.92)	1.87 (.85)		
Athletic competence (<i>n</i> = 49)				
Positive feedback	2.04 (.66)	1.29 (.65)	3.28*** [47]	1.14
Negative feedback	.96 (.66)	1.71 (.65)		
Arts and crafts (<i>n</i> = 54)				
Positive feedback	2.21 (.66)	1.43 (.95)	3.43*** [52]	.95
Negative feedback	.79 (.66)	1.57 (.95)		
Social acceptance (<i>n</i> = 50)				
Positive feedback	2.42 (.72)	1.73 (.72)	3.36*** [48]	.97
Negative feedback	0.58 (.72)	1.27 (.72)		
Physical appearance (<i>n</i> = 47)				
Positive feedback	2.32 (.65)	1.28 (.79)	4.8*** [45]	1.45
Negative feedback	0.68 (.65)	1.72 (.79)		

Note. Standard deviations are given in parentheses. Between-groups *t* tests are conducted for the amount of positive feedback sought. Sample sizes and group SPA means and standard deviations for the perceived competence groups are: scholastic competence (high: *n* = 33, *M* = 3.81, *SD* = .16; low: *n* = 24, *M* = 2.01, *SD* = .38), athletic competence (high: *n* = 25, *M* = 3.77, *SD* = .22; low: *n* = 24, *M* = 1.82, *SD* = .21), arts and crafts (high: *n* = 24, *M* = 3.86, *SD* = .17; low: *n* = 30, *M* = 1.83, *SD* = .40), social acceptance (high: *n* = 24, *M* = 3.92, *SD* = .10; low: *n* = 26, *M* = 2.29, *SD* = .36), and physical appearance (high: *n* = 22, *M* = 3.58, *SD* = .30; low: *n* = 25, *M* = 1.62, *SD* = .36). Homogeneity of variance emerged for all domains except arts and crafts.

****p* < .001.

group (i.e., for the high group and for the low group) differed significantly from the amount of positive feedback seeking expected by chance (1.5). Children in the high-perceived-competence group sought significantly more positive feedback than expected by chance in every domain: scholastic competence, $t(32) = 3.32$, $p < .001$, $d = 1.17$; athletic competence, $t(24) = 4.00$, $p < .001$, $d = 1.63$; arts and crafts, $t(23) = 5.90$, $p < .001$, $d = 2.46$; social acceptance, $t(23) = 6.26$, $p < .001$, $d = 2.61$; physical appearance, $t(21) = 5.94$, $p < .001$, $d = 2.59$. In contrast, the amount of positive feedback that children in the low-perceived-competence group sought did not differ from the amount expected by chance in any domain except scholastic competence, in which they sought

significantly less positive feedback than expected by chance, $t(23) = -2.16$, $p < .05$, $d = .90$. To facilitate comparison of the findings presented in this study with findings from studies of feedback seeking in adults, for all the data reported we also conducted analyses following the procedure used by Swann and his colleagues (e.g., Swann et al., 1989). Thus, for instance, to examine feedback seeking and perceived competence (Table 1 data) we conducted separate 2 (high- vs. low-perceived-competence group; between-subjects factor) $\times$ 2 (positive vs. negative feedback; within-subjects factor) repeated-measures ANOVAs for each domain. Then, to examine within-group differences, we used *t* tests to compare the seeking of positive versus negative feedback within

each group. In both studies, results from these analyses showed the same pattern of significance as those reported in this study.

Finally, to investigate feedback-seeking patterns within participants across different domains, we asked: "If a child reports high competence in one domain and low competence in another, does his or her feedback seeking vary as a function of domain?" Only participants with at least one very good domain (3 or above on the SPA) and at least one very poor domain (2 or below on the SPA) were included in this analysis. The domain with the highest score (at least 3) was considered the participant's best domain and the domain with the lowest score (no higher than 2) was considered the participant's worst domain. If more than one domain qualified as a participant's best or worst domain, one was randomly selected. The general well-being of the children in this sample is indicated by the fact that nearly all children (46 of 54) who had a very poor domain also viewed themselves as highly competent in another domain, thereby qualifying for inclusion in this set of analyses. A paired *t* test demonstrated that participants sought significantly more positive feedback in their best domain ($M = 2.02$, $SD = .77$) than in their worst domain ($M = 1.17$, $SD = .88$), $t(45) = 5.35$, $p < .001$, $d = 1.60$. Paired *t* tests also revealed that in their best domain, participants sought significantly more positive feedback than expected by chance, $t(45) = 4.57$, $p < .001$, $d = 1.37$, and in their worst domain participants sought significantly less positive feedback than expected by chance, $t(45) = -2.52$, $p < .05$, $d = .75$.

In sum, these results provide evidence that the type of information children seek about themselves is related to their self-perceptions. Specifically, children with positive self-perceptions (i.e., high levels of perceived competence) sought feedback that was consistent with their positive self-views. Children with negative self-perceptions, however, did not have this tendency in that they did not select more positive feedback than expected by chance. In fact, children who displayed both truly negative and truly positive self-perceptions on different domains (i.e., 2 or less on at least one domain and 3 or greater on at least one domain on the 4-point SPA scales) actively preferred negative feedback on their worst domain, as predicted by self-verification theory but in contrast to predictions of self-enhancement theory. It is important to note that the findings did not reveal that a child has a generalized tendency to seek a particular type of feedback across domains of functioning, but instead that a child prefers to seek

different kinds of feedback as a function of different kinds of self-views.

Feedback Seeking and Global Self-Worth

A between-group *t* test examining amount of positive feedback seeking revealed that children in the high-self-worth group ($M = 2.27$, $SD = .87$) sought significantly more positive feedback than did children in the low-self-worth group ($M = 1.37$, $SD = .84$), $t(51) = 3.82$, $p < .001$, $d = 1.07$. To examine whether children prefer feedback that confirms their self-perceptions rather than disconfirms their self-perceptions, we used *t* tests to examine within-group differences. As expected, children in the high-global-self-worth group sought significantly more positive feedback than expected by chance, $t(25) = 4.49$, $p < .001$, $d = 1.80$. In contrast, for children in the low-global-self-worth group, the amount of positive feedback sought did not significantly differ from chance.

Feedback Seeking and Attachment

To examine the hypothesis that children's positive feedback seeking in relation to global self-worth relates to attachment, we first conducted a between-group *t* test that revealed that, as expected, secure children ($M = 1.87$, $SD = .80$) sought more positive feedback than did insecure children ($M = 1.61$, $SD = .82$), $t(123) = 1.70$, $p < .05$, one-tailed, $d = .31$. Within-group analyses revealed that secure children sought significantly more positive feedback than expected by chance, $t(86) = 4.33$, $p < .001$, $d = .93$. This was not true for the insecure children, for whom the amount of positive feedback sought did not differ significantly from chance.

As described earlier, our conceptual model linking attachment and feedback seeking rests on findings that secure attachment is associated with positive global self-worth. Thus, to test whether children's global self-worth mediated the connection between attachment and positive feedback seeking regarding their global self-worth, we followed a procedure outlined by Baron and Kenny (1986). Evidence in support of the proposed mediation emerged from a set of three regressions. First, when the proposed mediator (global self-worth) was regressed on attachment security, the beta was significant. Second, when the positive feedback-seeking variable was regressed on attachment, the beta was significant. Third, when global self-worth and attachment security were simultaneously entered into a regression equation predicting positive

feedback seeking, a significant association emerged between global self-worth and positive feedback seeking, and the previously significant association between attachment security and positive feedback seeking was no longer significant (see Table 2). Following Baron and Kenny, we then tested for the indirect effect of attachment security on positive feedback seeking via the mediator (global self-worth). The results of this test confirmed the presence of an indirect effect, $z = 3.20$, $p < .001$.

Taken together, these results are consistent with attachment theorists' propositions that attachment security contributes to the development of positive mental representations (internal representational models) of self and others that (once established) guide several aspects of information processing (Bowlby, 1980; Cassidy, 1995; Main, Kaplan, & Cassidy, 1985). One aspect of information processing that has been proposed to relate to attachment is selective attention (Bowlby, 1980; Main et al., 1985), with secure attachment associated with the tendency to selectively attend to positive information about the self. Feedback seeking can be viewed as related to selective attention in that it involves the selection of particular information about the self to which one will attend.

Study 2

Having established that children's self-perceptions are related to their feedback seeking and that attachment security plays an important role in these processes as theoretically predicted, we decided to focus our investigative lens more specifically on the attachment-related components of these processes. This focus allows an examination of a central postulate of attachment theory—that general work-

ing models of the self (as worthy and lovable) and others (as responsive and dependable) influence people's attention to, as well as their processing of, information about the self (Bowlby, 1973, 1980). That is, instead of examining the influence on feedback seeking of individuals' perceived competence in a variety of concrete competency domains (such as sports or arts and crafts), we wanted to examine more thoroughly the influence on feedback seeking of individuals' global self-representations and attachment representations.

Our examination of potential contributors to feedback seeking related to one's global self-worth focused on the influence of (a) representations of global self-worth, (b) depression, and (c) two attachment-related representations: representations of maternal acceptance and representations of romantic attachment. We examined these influences on feedback seeking in four ways, described next. Because one of the components of individuals' representational models selected for investigation in this study required participants to be of an age at which dating relationships are more salient, we selected adolescents as research participants.

First, we sought to replicate and extend the results of Study 1 by examining the connection between perceptions of global self-worth (i.e., a representation of the self) and feedback seeking. Because prior research examining self-verification processes in adults has indicated that the use of groups of individuals whose self-perceptions are strongly positive and strongly negative should provide the clearest test of group differences in feedback seeking (e.g., Swann, 1983, 1990), we again followed Swann and his colleagues' practice of comparing groups of individuals with very strong perceptions of global self-worth (the upper and lower 20% of the sample). We expected that adolescents with high global self-worth would seek more positive feedback about their own worth than would adolescents with low global self-worth. Based on the results of Study 1, we also expected that adolescents with high global self-worth would seek more positive feedback regarding their self-worth than expected by chance. In contrast, we expected that adolescents with low global self-worth would seek more negative feedback regarding their self-worth than expected by chance. This preference for negative feedback was obtained in Study 1 for children who had strongly negative self-perceptions in a particular domain.

Second, because depression has been linked both theoretically and empirically to extremely negative self-representations, and because it is of interest to clinicians and researchers who study developmental

Table 2

Study 1: Summary of Regression Analyses Predicting Positive Feedback Seeking From Attachment Security and Perceived Global Self-Worth

Criterion/predictor	Incremental		
	β	F	df
Global self-worth			
Attachment security	.57	57.46***	1,120
Positive feedback seeking:			
Attachment security	.21	5.62*	1,121
Positive feedback seeking:			
Global self-worth	.39	20.37***	1,113
Attachment security	.03	.07	2,112

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

psychopathology, we examined the connection between depression and feedback seeking. According to the depression literature, depressed individuals hold views of others as being unavailable or unsupportive, and they hold views of the self as unworthy of or unable to obtain support (e.g., Beck, Brown, Steer, Kuyken, & Grisham, 2001; Gara & Woolfolk, 1993). Moreover, Bowlby and others have extensively discussed and examined the connections between attachment insecurity (involving negative representations of self and others) and depression (e.g., Bowlby, 1979, 1980; Carnelley, Pietromonaco, & Jaffe, 1996; Muris, Mayer, & Meesters, 2000; Murphy & Bates, 1997; Zuroff & Fitzpatrick, 1995). Based on this previous research and theorizing, and on the findings of Swann and his colleagues that clinically depressed adults not only sought less favorable feedback than did nondepressed adults but also favored negative over positive feedback (Giesler, Josephs, & Swann, 1996; Swann, Wenzlaff, et al., 1992), we expected that depressed adolescents would solicit less positive feedback about their own global self-worth than would nondepressed adolescents. Furthermore, we expected that depressed adolescents would seek more negative feedback than expected by chance, whereas nondepressed adolescents would seek more positive feedback than expected by chance. To provide clinically useful data, we used Kovacs's (1981, 1992) widely used criterion (described in the Measures section) to create the high- and low-depression groups.

Third, we sought to examine again the connection between attachment to mother and feedback seeking. We examined perceptions of maternal acceptance because maternal acceptance is an attachment-related component of the relationship with the mother that Ainsworth has described as central to security versus insecurity of attachment (Ainsworth, Blehar, Waters, & Wall, 1978). As in Study 1, we expected that adolescents with perceptions of high maternal acceptance would seek more positive information about their self-worth than would adolescents with perceptions of low maternal acceptance. In addition, adolescents with perceptions of high maternal acceptance were expected to seek more positive feedback than expected by chance; adolescents with perceptions of low maternal acceptance were expected to seek less positive feedback than expected by chance. Following Swann's reasoning about the use of individuals with strongly held views (e.g. Swann, Stein-Seroussi, et al., 1992), we examined adolescents whose maternal acceptance scores fell in the top and bottom 20% of the sample.

Finally, we examined the connection between romantic attachment security (i.e., mental representations of self and others in romantic relationships) and feedback seeking. Based on our hypotheses (and Study 1 findings) regarding attachment to mother and based on the findings of Brennan and Morris (1997) indicating an enhanced tendency for secure individuals to seek more positive feedback from romantic partners than insecure individuals, we expected adolescents' working models of romantic relationships to be related to their feedback seeking. Specifically, we expected that adolescents with secure romantic attachment representations would be more likely to seek positive information about their self-worth than would insecurely attached adolescents. Adolescents with secure romantic attachment representations were also expected to seek more positive feedback than expected by chance; adolescents with insecure romantic attachment representations were expected to seek less positive feedback than expected by chance. We examined adolescents whose romantic attachment security scores fell in the top and bottom 20% of the sample.

As in Study 1, our conceptual model linking secure attachment representations to feedback seeking rests on theory and research suggesting that secure attachment is associated with positive global self-views of one's being a good, valuable, and accepted person (Bowlby, 1988; Cassidy, 1988; Sroufe, 1990); these self-views, in turn, are thought to guide feedback seeking. We expected, therefore, that the connection between attachment security (as indicated by both positive representations of mother and positive representations of self and others in romantic relationships) and feedback seeking would be mediated by the adolescents' perceptions of global self-worth.

Method

Participants

Participants were 293 11th-grade students (62% female, 38% male; 65% Caucasian, 17% Asian, 2% African American, 2% Hispanic, 14% declined to provide racial information) recruited from four public high schools serving middle-class and upper middle-class neighborhoods of the Washington, D.C., metropolitan area. All 11th-grade students in these schools were invited to participate, but only students who returned parental consent (33% of students) were included. Sample size varies slightly across analyses because of missing data.

Procedure

As part of a larger study examining family and peer relations, participants completed a questionnaire packet during a single classroom session. All of the measures reported here were included in the packet.

Measures

SPA (Harter, 1988). The global self-worth subscale was used to tap adolescents' global representations of the self. Participants received a score that was the mean of five 4-point items ($M = 3.00$, $SD = .73$; $\alpha = .87$). This measure was used in Study 1 and was described in greater detail earlier. A sample item from this subscale is "Some teenagers like the kind of person they are BUT other teenagers often wish they were someone else."

Children's Depression Inventory (CDI; Kovacs, 1981, 1992). This self-report measure assesses symptomatology related to depression, including disturbed mood, vegetative states, self-evaluative thoughts, and interpersonal behaviors. The CDI is a version of the Beck Depression Inventory (Beck, Ward, Mendelson, Mach, & Erbaugh, 1961) that has been modified for use with children. There are 27 items; in the present study the item related to suicidal ideation was deleted, leaving 26 items ($\alpha = .85$). For each item, children were asked to select, from a cluster of three sentences, the sentence that best described them over the previous 2 weeks. A sample item includes the following sentences: "I feel like crying everyday," "I feel like crying many days," and "I feel like crying once in a while." Scores on each item range from 0 to 2, with higher scores indicating greater depression. Scores for each item were summed to create a total score; possible total scores ranged from 0 to 52. Kovacs reported that the CDI discriminated between young people with a major depressive disorder and normal adolescents, and that it was significantly correlated with clinicians' ratings of depression ($r = .60$). Following Kovacs (1992), we used a cutoff score of 20 to compare depressed adolescents (with scores of 20 or more) with nondepressed adolescents (with scores of less than 20).

Maternal Acceptance-Rejection Questionnaire (M-PARQ; Rohner, 1991). This scale was used to tap adolescents' perceptions of two key components of the attachment relationship with the mother—acceptance and rejection. Acceptance was tapped by the 20-item Warmth/Affection scale (e.g., "My mother talks to me in a warm and loving way,"

"My mother lets me know she loves me"), and rejection was tapped by the 15-item Aggression/Hostility scale (e.g., "My mother ridicules and makes fun of me," "My mother feels other teens are better than I am no matter what I do"). Adolescents were asked to describe the extent to which each statement is true by using a 4-point scale ranging from *almost never true* to *almost always true*. Responses for items on the Aggression/Hostility scale were reverse scored and summed with responses to the items on the Warmth/Affection scale to create a total score of perceived acceptance ($\alpha = .94$). Possible scores ranged from 35 to 140. Reliability and validity assessments of the M-PARQ have revealed no significant age, sex, social class, or ethnic group differences in scores among participants (Rohner, 1991). The predictive validity of the M-PARQ has been extensively demonstrated (e.g., Belsky & Isabella, 1985; Rohner, 1991).

Experiences in Close Relationships scale (ECR; Brennan, Clark, & Shaver, 1998). This 36-item scale taps secure versus insecure working models of romantic attachment relationships. There are two subscales. The Avoidance subscale (18 items; $\alpha = .92$) measures the extent to which a person is uncomfortable with closeness and intimacy, is uncomfortable depending on others, and is uncertain that people can be relied on when needed (e.g., "I prefer not to show a partner how I feel deep down," "I am very uncomfortable being close to romantic partners"). The Anxiety subscale (18 items; $\alpha = .90$) measures the extent to which a person is worried about being rejected, abandoned, or unloved (e.g., "I worry about being abandoned," "I worry that romantic partners won't care about me as much as I care about them"). Adolescents are asked to respond to each item on a 7-point scale ranging from *disagree strongly* to *agree strongly* in terms of their general orientation toward romantic relationships. In this sample, the Avoidance and Anxiety subscales were not significantly correlated. Scores on the Avoidance and Anxiety subscales were reversed and summed to create a security score, with higher scores indicating higher security. Security on the ECR has been reported to be highly related to marital satisfaction and discord, and moderately related to passion, intimacy, dedication, and the endorsement of depressive symptoms (for a review, see Crowell, Fraley, & Shaver, 1999).

Feedback-seeking measure. This measure was used in Study 1 and was described earlier. There were, however, two modifications in this study. First, participants were shown questions related to only one of the domains examined in Study 1: the global

self-worth domain. A sample item from this domain (considered to indicate a desire for positive feedback) is "Why might this person be happy with himself or herself most of the time?" Another sample item from this domain (considered to indicate a desire for negative feedback) is "Why would this person often wish he or she was different?" Second, the procedure was introduced to the participants slightly differently: In Study 1, children were told that their questionnaires would be shown to students from different schools. In Study 2, the feedback-seeking measure, which was contained within a larger questionnaire packet, contained the following written instructions: "We're thinking of doing another study sometime in the future. We would only do this study if we get approval from your principal, teachers, parents, and from you. This is how it would work. We would take information about you (identified only by code number, not by your name) to another school. The teens there would read this information and then answer questions about you. After they answered questions about you, you would get to read what they said about you. But since it would take too long for you to read the answers to all of the questions, we want you to read the questions and tell us which ones you'd like to see the answers to. Please circle three of the questions that you'd like to know the answers to."

Results and Discussion

Gender and Race Analyses

Analyses including gender and race as factors revealed no main or interaction effects. Gender and race, therefore, were not included in the analyses presented here.

Global Self-Worth and Feedback Seeking

We first conducted a between-groups *t* test examining positive feedback seeking, which revealed that adolescents in the high-global-self-worth group ($M = 2.26$, $SD = .87$) sought more positive feedback about the self as a worthwhile person than did adolescents from the low-global-self-worth group ($M = 1.18$, $SD = .81$), $t(127) = 7.32$, $p < .001$, $d = 1.30$. As expected, within-group analyses revealed that adolescents in the high-global-self-worth group sought significantly more positive feedback than expected by chance, $t(67) = 6.81$, $p < .001$, $d = 1.66$, and in contrast, adolescents in the low-global-self-worth group sought significantly more

negative feedback than expected by chance, $t(60) = 3.30$, $p < .001$, $d = .85$.

These results provide evidence that adolescents seek information about themselves that is consistent with their existing self-perceptions. Especially noteworthy are the results indicating that adolescents with truly negative self-perceptions (i.e., the lowest 20% of the sample on the global self-worth scale) actively prefer negative feedback when selecting feedback about the self. This finding supports the notion that people actively seek to confirm their existing self-views, but it is inconsistent with the proposition that people are uniformly motivated to receive positive feedback.

Depression and Feedback Seeking

We first conducted a between-groups *t* test examining positive feedback seeking, which revealed that nondepressed adolescents ($M = 1.93$, $SD = .86$) sought more positive feedback about the self as a worthwhile person than did depressed adolescents ($M = 1.05$, $SD = .76$), $t(267) = 6.01$, $p < .001$, $d = .74$. Within-group analyses revealed that as expected, nondepressed adolescents sought significantly more positive feedback than expected by chance, $t(229) = 7.60$, $p < .001$, $d = 1.00$, whereas depressed adolescents sought significantly more negative feedback than expected by chance, $t(38) = -3.69$, $p < .001$, $d = 1.20$.

In sum, these results revealed that depressed individuals sought feedback about themselves that was related to their extremely negative self-representations. Depressed adolescents sought less positive feedback than did nondepressed adolescents and actively preferred negative feedback about themselves as worthy individuals. Thus, it appears that depressed adolescents choose not to access positive information about themselves. These findings converge with findings from previous studies that suggest that depressed individuals may behave and process information in ways that contribute to the maintenance of their depression (Beck & Clark, 1991; Hammen & Zupan, 1984).

Representations of Maternal Acceptance and Feedback Seeking

A between-groups *t* test of positive feedback seeking revealed that, as expected, adolescents in the high-maternal-acceptance group ($M = 2.17$, $SD = .83$) sought more positive feedback about the self as a worthwhile person than did adolescents in the low-maternal-acceptance group ($M = 1.37$,

$SD = .87$), $t(117) = 5.11$, $p < .001$, one-tailed, $d = .94$. Also consistent with our hypotheses, within-group analyses revealed that adolescents in the high-maternal-acceptance group sought significantly more positive feedback than expected by chance, $t(59) = 6.25$, $p < .001$, $d = 1.63$. In contrast to our hypothesis, for adolescents in the low-maternal-acceptance group, the amount of positive feedback sought did not differ significantly from chance, $t(58) = 1.12$, *ns*.

We hypothesized that attachment-related maternal representations would influence adolescents' self-representations, which would in turn influence feedback seeking. We therefore tested whether adolescents' global self-worth mediated the connection between maternal acceptance and positive feedback seeking about one's global self-worth using the procedure used in Study 1 (Baron & Kenny, 1986). Evidence in support of the proposed mediation emerged from a set of three regression analyses. First, when global self-worth, one of the proposed mediators, was regressed on maternal acceptance, the beta was significant. Second, when positive feedback seeking was regressed on maternal acceptance, the beta was significant. Finally, when global self-worth and maternal acceptance were entered into a regression predicting feedback seeking, a significant association emerged between global self-worth and positive feedback seeking. However, the previously significant association between maternal acceptance and positive feedback seeking was no longer significant, providing evidence that global self-worth mediated the link between attachment and feedback seeking (see Table 3). Following Baron and Kenny (1986), we then tested for the indirect effect of maternal acceptance on positive feedback seeking via the mediator (global self-worth). The results of this test confirmed the presence of an indirect effect, $z = 5.63$, $p < .001$.

Table 3
Study 2: Summary of Regression Analyses Predicting Positive Feedback Seeking From Perceived Maternal Acceptance and Global Self-Worth

Criterion/predictor	Incremental		
	β	F	df
Global self-worth:			
Maternal acceptance	.51	93.90***	1,268
Positive feedback seeking:			
Maternal acceptance	.31	28.91***	1,279
Positive feedback seeking:			
Global self-worth	.39	75.41***	1,244
Maternal acceptance	.00	.00	2,243

*** $p < .001$.

Romantic Attachment and Feedback Seeking

A between-groups t test of positive feedback seeking revealed that, as expected, more secure adolescents ($M = 2.13$, $SD = .79$) sought more positive feedback about the self as a worthwhile person than did less secure adolescents ($M = 1.41$, $SD = .78$), $t(101) = 4.66$, $p < .001$, one-tailed, $d = .93$. Within-group analyses revealed that more secure adolescents sought significantly more positive feedback than expected by chance, $t(51) = 5.77$, $p < .001$, $d = 1.62$. In contrast, for less secure adolescents the amount of positive feedback sought did not differ significantly from chance.

Next, we examined whether adolescents' global self-worth mediated the connection between romantic attachment and positive feedback seeking about one's global self-worth. We used a set of three regression analyses to test this proposed mediation. First, when global self-worth was regressed on romantic attachment security, the beta was significant. Second, when positive feedback seeking was regressed on romantic attachment security, the beta was significant. Finally, when global self-worth and romantic attachment security were entered into a regression predicting feedback seeking, a significant association emerged between global self-worth and positive feedback seeking, but the previously significant association between romantic attachment security and positive feedback seeking was no longer significant (see Table 4). These results indicate that global self-worth mediates the link between romantic attachment security and feedback seeking about one's global self-worth. Following Baron and Kenny (1986), we then tested for the indirect effect of romantic attachment on positive feedback seeking via the mediator (global self-worth). The results of this test confirmed the presence of an indirect effect, $z = 4.82$, $p < .001$.

Table 4
Study 2: Summary of Regression Analyses Predicting Positive Feedback Seeking From Romantic Attachment Security and Global Self-Worth

Criterion/predictor	Incremental		
	β	F	df
Global self-worth:			
Attachment security	-.47	65.61***	1,234
Positive feedback seeking:			
Attachment security	-.29	22.43***	1,248
Positive feedback seeking:			
Global self-worth	.40	66.45***	1,213
Attachment security	-.08	1.54	2,212

*** $p < .001$.

General Discussion

It is a long-standing and widely held notion that the feedback children receive plays an important role in their development, and there has been considerable speculation about the ways children can contribute to this feedback (Bell & Harper, 1977). Children can directly ask for feedback not only from peers but from teachers and family members as well. Moreover, children can influence the feedback they receive through their selection of the people with whom they spend time, again selecting people who routinely are likely to give them the kind of feedback they prefer. Furthermore, children can make choices that more indirectly influence the feedback they receive by making choices about their behavior; for instance, a child who chooses to study a great deal increases the likelihood of receiving positive feedback about his or her academic competence.

The studies presented here are among the first to examine children's and adolescents' choices when given the opportunity to select feedback. In both studies, evidence emerged that the choices children and adolescents made when actively seeking feedback were related to their self-perceptions. Positive-view individuals generally sought more positive feedback than did negative-view individuals, and they sought more positive feedback than expected by chance. Negative-view individuals, on the other hand, lacked the positive tendency that characterized positive-view individuals. In some cases, negative-view individuals actively preferred negative feedback; in other cases, the amount of positive feedback (and, by definition, negative feedback) that negative-view individuals sought did not differ significantly from chance. Moreover, findings from Study 1 revealed that feedback seeking varied as a function of the child's self-view rather than as a function of a stable trait of the child. That is, it was not that certain children uniformly preferred positive versus negative feedback; instead, children preferred positive feedback in relation to an area in which they viewed themselves positively and negative feedback in relation to an area in which they viewed themselves negatively.

These studies not only suggest that self-perceptions are related to feedback seeking about the self but also offer some support for the position in self-verification theory that individuals prefer feedback that verifies their self-perceptions, even when those perceptions are negative, as long as individuals have clear and strong self-perceptions. Three sets of key analyses including individuals with clearly negative self-perceptions revealed preferences for negative

feedback. In Study 1, children who displayed both truly negative and truly positive self-perceptions on different domains (i.e., 2 or less on at least one domain and 3 or greater on at least one domain on the 4-point SPA scales), actively preferred negative to positive feedback on their worst domain. In Study 2, adolescents with the lowest perceptions of global worth (lowest 20%) preferred negative to positive feedback about the self. Also in Study 2, adolescents above the cutoff point for depression (score of 20 or more, top 14%) preferred negative to positive feedback about the self.

The two studies reported here overlapped in examination of two contributors to feedback seeking about the self: global self-worth and attachment security/maternal acceptance. There was much convergence, and no clear evidence of age-related differences emerged. At both ages, perceptions of global self-worth were related to feedback seeking about one's global self-worth: high-group individuals sought more positive feedback than did low-group individuals, and high-group individuals preferred positive to negative feedback. The attachment-related findings were identical across studies. The feedback seeking of individuals in the low self-worth group, as discussed next, varied as a function of age.

The age-related differences for feedback seeking about global self-worth could stem either from changes in actual feedback-seeking tendencies or from changes in a factor, such as quality of self-perceptions, which in turn contributes to feedback seeking. Eleventh-graders in the low-self-worth group preferred negative to positive feedback; that is, they self-verified. Seventh-graders in the low-self-worth group, on the other hand, showed evidence of neither self-verification nor self-enhancement: Although inspection of the data indicated a tendency toward self-verification, the amount of positive (or negative) feedback sought did not differ significantly from chance. In an attempt to understand this age-related difference, we examined the group means of children in the low-self-worth group and found that the mean of 7th graders ($M = 2.21$, $SD = .37$) was significantly higher than that of 11th graders ($M = 1.99$, $SD = .40$), $t(86) = 2.34$, $p < .05$, $d = .57$. Swann's (1990) contention that individuals are most likely to self-verify their firmly held views led us to wonder whether the lack of self-verification by the 7th-grade low-self-worth group might reflect the fact that their negative self-perceptions were not strongly negative. Future work should examine whether 7th graders who have lower global self-perceptions (i.e., scores comparable to those of the

11th graders) prefer negative to positive feedback. It is interesting to note that our failure to find any evidence of self-enhancement in relation to global self-worth contradicts the thinking of Neff and Karney (in press) who have proposed that individuals may self-verify in relation to their specific traits but self-enhance in relation to their global worth.

In both studies, seeking feedback about one's global self-worth was modestly but significantly related to attachment-related constructs in ways that are consistent with attachment theorists' propositions about attachment and information processing (Bowlby, 1980; Cassidy, 1995; Main et al., 1985). In both studies, individuals with more secure attachment representations (of mother in Study 1 and of mother and of romantic partners in Study 2) were more likely to seek positive feedback about the self than were individuals with less secure attachment representations. In addition, in both studies, individuals with more secure representations sought significantly more positive feedback about the self than expected by chance, whereas for individuals with less secure representations, the amount of positive feedback sought was not significantly different from chance. Thus, attachment-related findings were consistent across age, across methodologies, and across attachments (mother, romantic partner). These attachment-related data contribute to understanding the processes through which secure attachment facilitates a positive developmental outcome (see Feeney, 1999, and Thompson, 1999, for reviews). The tendency that securely attached individuals have toward seeking positive feedback about themselves may help solidify their positive views; positive self-views, in turn, are associated with a variety of positive developmental outcomes (e.g., Harter, 1998).

Moreover, in both studies, as predicted, the connection between each attachment-related measure and feedback seeking about global self-worth was mediated by perceived global self-worth. Attachment predicted global self-worth (paralleling findings with 6-year-olds; Cassidy, 1988), and then as predicted, global self-worth predicted positive feedback seeking. This finding of mediation is consistent with Bowlby's (1980) notion that secure attachment is associated with positive representations of the self and that these representations guide the processing of information in various ways, including information processing related to the self. One aspect of information processing that has been proposed to relate to attachment is selective attention (Bowlby, 1980; Kirsh & Cassidy, 1997; Main

et al., 1985), with security principally associated with attention to positive information about the self. Feedback seeking certainly can be viewed as related to selective attention; that is, a selection of the particular (feedback) information about the self to which one will attend. Yet despite links to selective attention, feedback seeking is nonetheless distinctive because it involves people's efforts to alter the raw material that one encounters. Selective attention may distort one's vision of reality; selective feedback seeking may actually alter the reality people encounter.

It is important to consider whether there may be alternate or additional explanations for why children and adolescents seek self-verifying feedback. It is reasonable to speculate, for instance, that low-self-view people prefer negative feedback because their self-views reflect their actual competence and they want constructive feedback for future performance, a suggestion that implies a self-improvement motivation. A self-improvement motive is actually a form of a self-enhancement motive: The thinking is that people really want to be seen in a positive light, and if they temporarily have to seek negative feedback to gain information that will ultimately make them be seen in a positive light, they will do it (Steele, 1990; Trope, 1986). To examine the possible role of a wish for self-improvement, Swann and his colleagues (Swann, Stein-Seroussi, & Giesler, 1992) asked participants to narrate their thoughts while they were selecting feedback evaluations and found that reasons related to self-improvement were rarely given. As expected, and in keeping with the tenets of self-verification theory, the most common reason provided was that the feedback confirmed the individual's self-views. Although there is little indication that self-improvement strivings explain feedback seeking in adults, this may not be the case with children and adolescents who may be more concerned with self-improvement than are adults. Future research should explore not only the role of children's actual competence and wishes for self-improvement but also, more broadly, the reasons children provide for their feedback choices.

Another direction for future research would be examination of children's feedback selection when they are given the opportunity to select as much feedback as they would like. An interesting question would be whether children might prefer all available feedback—both positive and negative—over primarily positive or negative, and whether this is predictable from attachment and self-perceptions. Children who recognize the value of criticism for improvement and who are secure in their self-

perceptions might be expected to be interested in negative feedback without being threatened by it. Thus, children with high self-perceptions who are secure may seek positive feedback that confirms their self-perceptions, yet because their security is associated with confidence in themselves and others, may also seek negative feedback if they view this information as being valuable for self-improvement. This might not be the case for high-self-perception children who are insecure. (We thank an anonymous reviewer for this suggestion.)

The ways children seek feedback are relevant to the important developmental and clinical issues of stability and change. For an individual with positive self-perceptions, the tendency to select positive feedback leads to being reinforced in this view; it is hard to imagine that such reinforcement does anything other than contribute to stability of the self-view. Through their choices, individuals reduce the likelihood of receiving information that might challenge this view and contribute to change. Thus, it may be that the feedback-seeking patterns of children and adolescents with positive self-views yield positive consequences because these individuals are shielded from negative information about themselves; attending to negative feedback could shake their confidence, thereby reducing competence. It is possible, however, that preferring positive feedback is detrimental to these individuals if it precludes their gaining information about ways they can maintain or even improve their positive self-views. The possibility that children's and adolescents' feedback seeking contributes to stability is consistent with theoretical perspectives that suggest that stability in individuals' personality development is partly due to the tendency to behave and process information in ways that contribute to stability (Bowlby, 1980; Caspi, 1993; Crick & Dodge, 1994).

On the other hand, it is less clear whether the feedback-seeking patterns of individuals with negative self-views contribute to stability or to change. The fact that these individuals do not have the tendency to seek positive information that other children have and that they even, if the self-perception is truly negative, seek less positive feedback than expected by chance, may mean that their restriction of positive information reduces the likelihood of positive change. If this is the case, feedback-seeking patterns have negative consequences for individuals with negative self-concepts. Refusing the chance to receive positive information about oneself drastically reduces an individual's opportunity to change a negative self-concept: Without positive information about the self to contradict

negative information, a person has no reason to change a negative self-concept. It is also possible, though, that when an individual with a negative self-view prefers negative feedback, the choice is, in fact, a move toward change. As noted earlier, some have suggested that individuals may seek information about their weaknesses as a means of improving them (Steele, 1990; but see Swann, Stein-Seroussi, & Giesler, 1992). Given the complexities of individual variation, it is likely that negative feedback seeking contributes to stability in some children and adolescents and to change in others. Because understanding the causes of stability and change is crucial to bringing about constructive change, examining children's and adolescents' own contributions to stability and change is important (see Ruble and Flett, 1988, who interpreted feedback-seeking patterns similar to those we found, for both low- and high-competence children, as contributing to stability).

Finally, our findings may have implications for intervention programs with children and adolescents. There is much current interest in finding ways to design successful interventions to help children with low self-esteem. Our findings reveal that children with negative representations of self and others lack the tendency of their peers with positive representations to seek more positive feedback than expected by chance. In fact, the feedback-seeking behavior of these individuals may be one reason that clinicians sometimes have difficulty bringing about change in troubled children and adolescents: Individuals with negative self-perceptions, when given the opportunity to receive positive feedback that might help them change their negative perceptions, may not take the opportunity. It is possible, therefore, that intervention programs that include a component in which negative feedback-seeking patterns are directly addressed may prove useful when intervening with children and adolescents who have negative representations of themselves.

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