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"SELFOBJECT" NEEDS IN KOHUT'S SELF PSYCHOLOGY

Links With Attachment, Self-Cohesion, Affect Regulation, and Adjustment

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Seven studies examined the validity and usefulness of central constructs in Kohut's self psychology: selfobject needs for mirroring, idealization, and twinship and avoidance of acknowledging these needs. These constructs were assessed with a new self-report measure that was found to be reliable, valid, and empirically linked with a variety of constructs in contemporary personality and social psychology. The findings supported and refined Kohut's ideas about the independence of the 3 selfobject needs, the orthogonality between these needs and defensive attempts to avoid acknowledging them, the motivational bases of narcissism, and the contribution of selfobject needs to problems in interpersonal functioning, mental health, self-cohesion, and affect regulation. The findings reveal mutually beneficial conceptual links between Kohut's self psychology and attachment theory and suggest ways in which Kohut's theory can be studied empirically.

Self psychology, developed by Heinz Kohut (1971, 1977, 1984), is widely accepted today as one of the central psychoanalytic theories (e.g., Eagle, 1984; Mollon, 2001; Siegel, 1996; Strozier, 2001; Wolf, 1988). It is a comprehensive theory consisting of both a developmental model and a model for clinical consultation and therapy. At the heart of the theory lies the self, conceptualized as a mental system that organizes a person's subjective experience in relation to a set of developmental needs (Wolf, 1988). Kohut (1971) called these needs "selfobject needs" because they are associated with sustaining the self and are satisfied (or not) by external figures in a person's life. Following Freud (1933), Kohut referred to people as "objects" of instincts, even though he changed Freud's theory considerably, including deemphasizing sexual and aggressive instincts. Although the

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concept of selfobject needs has become popular within psychoanalysis (Wolf, 1988), it has yet to be studied empirically. The present article is an attempt to remedy that deficiency by testing some of the theory's core propositions and linking them with constructs and methods of contemporary research in personality and social psychology.

Key Constructs in Self Psychology: Healthy Narcissism and the Cohesive Self

According to Kohut (1971, 1977, 1984), the self (viewed as a process or system that organizes subjective experience) is the essence of a person's psychological being and consists of sensations, feelings, thoughts, and attitudes toward oneself and the world. Whereas Freud viewed the self as part of the contents of the ego (somewhat like William James's [1890] notion of the "me"), Kohut conceptualized the self as the initiating center of the personality (Eagle, 1984), akin to James's "I." In other words, Kohut viewed the self as a psychological force that explains the development of a mature and healthy personality as well as the formation of personality disorders.

Within self psychology, Kohut (1966/1978b) regarded narcissism—libidinal investment in the self (another concept carried over from Freud's theory)—as a normal developmental phenomenon rather than a defensive or pathological condition. Kohut (1966/1978b) posited a line of healthy narcissistic development that moves toward consolidation of a cohesive self-structure, providing a sense of identity, value, meaning, and permanence and promoting the actualization of a person's potentialities (native talents and acquired skills). The theory places unusual emphasis on cohesion, or coherence, of the self and on creativity and self-actualization. According to Kohut (1971), the narcissistic line of development is active from the beginning of life and is a precondition for adequate personality functioning. This line of development guides a person's subjective experience from infancy, causing even infants to invest energy in the gratification of needs for self-expression and self-promotion, and leading to the development of an inner structure responsible for meeting narcissistic needs and maintaining mental health.

According to Kohut (1971, 1977, 1984), the development of a cohesive self takes place along three axes: (a) the grandiosity axis, (b) the idealization axis, and (c) the alter ego–connectedness axis. The *grandiosity axis* refers to a person's ability to maintain a positive and stable sense of self-esteem, develop healthy ambitions, and commit to meaningful tasks and projects. In normal development, this axis is expressed in a person's sense of self-worth, healthy ambition, commitment, assertiveness, and accomplishment (Kohut, 1968/1978c). The *idealization axis* refers to the development of a person's ability to form and maintain a stable system of goal-setting ideals. The normal development of this narcissistic trend culminates in healthy and strongly held goals, ideals, and values (Kohut, 1971). The *alter ego–connectedness axis* refers to the development of a person's ability to communicate feelings to significant others, form intimate relationships, and become part of larger groups and organizations. The normal development of this axis is expressed in a sense of belongingness and connectedness and in a feeling that one's qualities, goals, and ideals are understood and accepted by others (Kohut, 1984).

In self psychology, a healthy and cohesive self-structure is the outcome of normal development along the grandiosity, idealization, and connectedness dimensions (Kohut, 1971, 1977, 1984). In other words, a sense of self-cohesion—a sense that all features of one's personality are facets of a single, well-integrated structure—is achieved when people possess a stable, positively valued, and congruent set of qualities, ambitions, ideals, and values, and are able to accomplish their goals without being rejected or isolated from

significant others and important reference groups. Confidence about the acceptability and serviceability of one's personality, talents, and skills contributes to a cohesive, integrated self-structure that provides a subjective sense of sameness, stability, and permanence. This self-structure can maintain a sense of consistency and clarity of patterns of experiences and behaviors even under threatening conditions. Furthermore, it can provide a sense of inner security and resilience, calm a person in times of stress, and repair wounds to self-esteem inflicted by temporary failures, rejections, and disappointments (Kohut, 1984).

Kohut (1971) believed that difficulties in development along the grandiosity, idealization, and connectedness dimensions lead to disorders of the self, which are characterized by an underlying lack of self-cohesion, serious doubts about one's sense of continuity over time, lack of confidence in one's ability to deal with life's hardships, and vulnerable self-esteem (Kohut & Wolf, 1978). When such pathology is present, healthy expressions of grandiosity, mature goals, and a sense of connectedness are underdeveloped, and the person lacks the capacity to maintain a steady level of self-esteem, formulate realistic goals, and empathize with others.

As a result, people with a disordered self become focused on their deficiencies, extremely vulnerable to criticism and failure, and overwhelmed by negative emotions, pessimistic thoughts, and feelings of alienation and loneliness (Kohut, 1971). In addition, such individuals may develop psychological defenses aimed at reducing negative self-related feelings and creating an exhibitionistic and unstable facade of grandiosity and success. Such people become preoccupied with fantasies of perfection and power, tend to exaggerate their achievements and talents, and work to avoid situations and people that challenge their defenses and threaten to shatter their pseudograndiosity (Kohut, 1971).

It was by working with such individuals in a clinical, psychoanalytic setting, and perhaps also by studying himself introspectively (Strozier, 2001), that Kohut gradually formulated self psychology. He explicitly characterized psychoanalysis as a process based completely on empathy and introspection and deliberately distanced himself from theorists who tried to look behind those processes to discover their biological underpinnings or evolutionary history (Kohut, 1959/1978a).

Development of a Cohesive Self: The Role of Selfobject Needs

Besides delineating the three dimensions of a cohesive self, Kohut (1971, 1977, 1984) attempted to explain how a sense of self-cohesion, or its absence, is developed from infancy to adulthood, especially in the context of interpersonal relationships with significant others. Specifically, he stressed the importance of these relationships for promoting a person's sense of self-cohesion. In his view, which is similar in this respect to Bowlby and Ainsworth's attachment theory (Ainsworth, 1991; Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982, 1973, 1980), the development of a cohesive self depends on the availability and responsiveness of significant others, especially when a person seeks help with distress regulation. Like attachment theorists, Kohut (1971) argued that this role of significant others is critical in infancy, when young children are helpless and totally dependent on caregivers for maintaining and reinforcing what he called healthy narcissism. In this early stage of development, the child's self is immature, and he or she relies totally on caregivers as external sources of self-cohesion.

Although this dependence on significant others is reduced in later phases of development, when a cohesive self is fairly well consolidated and a person acquires the capacity for inner self-regulation, it is still active in a limited and flexible way. In particular,

dependence on others becomes salient during life transitions and traumatic experiences that can disrupt a person's narcissism. In other words, although Kohut (1977) described a developmental process by which a person becomes increasingly less dependent on significant others for self-regulation, he also stressed that dependence is maintained in a limited manner over the entire life course. This is similar to points made by Bowlby (1988) and Ainsworth (1991) in their discussions of the continuing importance of attachment needs across the life span.

From the infant's subjective perspective, which Kohut attempted to understand empathically, significant others are experienced as nonautonomous components of the self. Kohut (1971) therefore named these significant others *selfobjects* and viewed them as playing a vital role in the development of healthy narcissism. In his terminology, when an individual, A, needs and expects individual B to satisfy a self-enhancing or self-sustaining (i.e., narcissistic) need that A cannot satisfy by him- or herself, A is treating, or using, B as a selfobject. Part of Kohut's reasoning is that on such occasions, A expects and needs B to behave as if B were not an independent and separate entity but rather a part of the self. The selfobject concept emphasizes the essential nature of significant others in the process of self-regulation early in life.

To characterize the specific selfobject functions of significant others—functions that Kohut (1971, 1977, 1984) realized he was serving for his psychoanalytic clients—he proposed three cardinal selfobject needs that correspond to the three axes of self-development. These needs were called needs for mirroring, idealization, and twinship. The selfobject need for *mirroring* is a need to be admired for one's qualities and accomplishments. Kohut (1971) argued that children need a caregiver who admires them, celebrates their progress, and applauds their accomplishments. Satisfaction of this selfobject need includes being valued by others and feeling pride in one's qualities and accomplishments, which in turn contribute to what Kohut viewed as a healthy sense of "grandiosity." The selfobject need for *idealization* is a need to form an idealized image of significant others and to experience a sense of merging with the resulting idealized selfobjects. In Kohut's (1971) view, children need to hold an image of one or more idealized parental figures toward whom they can feel admiration and with whom they can identify to the point of feeling they are associated with, or a part of, those people's highly admirable qualities. Through this kind of identification, children can proceed through development in a more secure fashion and internalize the ability to hold ideals and set high but realistic goals. The selfobject need for *twinship* is a need to feel similar to others and be included in relationships with them. According to Kohut (1984), children need a parental figure to whom they are allowed to feel similar and with whom they are encouraged to feel "part of" a group (e.g., family) that surrounds and protects them. Gratification of this need facilitates the adoption of community codes and the development of social skills, empathy, and a sense of connectedness.

Kohut (1971, 1977, 1984) attempted to characterize the dynamic interplay between these selfobject needs and a cohesive self. On the one hand, caregivers' empathic responses to children's narcissistic needs foster the development of an inner state of stability, security, and self-cohesion. On the other hand, consolidation of this sense of self-cohesion makes selfobjects less necessary, because the individual's own cohesive self becomes the major agent of self-regulation. That is, with satisfaction of selfobject needs, a person's feelings of healthy grandiosity, idealization, and connectedness are strengthened, and he or she gradually acquires self-regulatory capacities. Specifically, the person can internally regulate self-esteem and ambitions instead of requiring admiration from others. The person can develop his or her own system of ideals and goals and maintain a

sense of direction in life instead of needing to identify with a powerful other. As a result, the person becomes less dependent on external sources of self-regulation and can relate to others without demanding that they fulfill selfobject functions. This developmental process, which Kohut (1971) called "transmuting internalization," involves the internalization of self-regulation functions that were fulfilled in the beginning of life by parents, with the individual gradually acquiring the ability to perform these functions autonomously. This process resembles Bowlby's (1973) notions about the internalization of positive interactions with significant others and the formation of a sense of attachment security.

According to Kohut (1971), the process of transmuting internalization depends on the willingness and ability of parents to act as selfobjects and to satisfy the child's selfobject needs. As they do, the archaic needs for admiration, omnipotent figures, and twinship experiences are tamed and transformed into healthy narcissism, as manifested in a cohesive self that is capable of maintaining self-esteem, ambitions, and goals. When parents fail to satisfy selfobject needs by providing mirroring and opportunities for idealization and twinship, the transmuting internalization process is disrupted and pathological narcissism may appear. The sense of self-cohesion will not develop, and powerful archaic needs for admiration, powerful others, and twinship experiences will remain. In Kohut's (1971) words, "the psyche continues to cling to a vaguely delimited image of absolute perfection" (p. 65). That is, the person retains a chronic, archaic "hunger" for selfobject experiences, and his or her behavior is characterized by a continuing search for satisfaction of unmet selfobject needs. In addition, when children undergo traumatic experiences, rejections, or losses, they may create psychological barriers against the painful experience of frustrated selfobject needs. As a result, they may develop what Kohut and Wolf (1978) labeled a "contact-shunning personality" (p. 418), which consists of defensive avoidance of selfobject experiences and denial of their selfobject needs.

Kohut's (1971, 1977, 1984) broad ideas about hunger for selfobject provisions and avoidance of selfobject needs in adulthood as reactions to the deprivation of selfobject provisions during childhood resemble Fraley and Shaver's (2000) hypothesis about two different psychological reactions to deprivation of attachment provisions. On the one hand, hunger for unmet selfobject provisions resembles the reaction of anxiously attached persons, who hyperactivate their attachment responses in an attempt to obtain more of others' love and support, which were insufficiently or unreliably provided during childhood. On the other hand, the avoidance of selfobject needs is similar to the idea of avoidance and deactivation of attachment needs as a defensive reaction to traumatic interactions with significant others. This resemblance between self psychology and attachment theory is one focus of the series of studies reported here.

In summary, according to Kohut, a person's orientation to selfobject needs is an important component of personality functioning in adulthood. On the one hand, individuals who possess relatively weak and mature selfobject needs and do not attempt to deny these needs seem also to have reliable self-regulation strategies and relatively stable levels of self-esteem and well-being. On the other hand, those who have strong and archaic selfobject needs or attempt to avoid and deny these needs seem to suffer from disorders of the self and to experience problems in maintaining healthy feelings of grandiosity, idealization, and connectedness.

Previous Empirical Work on Self Psychology

Although few attempts have been made to examine Kohut's theory empirically, there is a substantial body of empirical knowledge concerning one of Kohut's core concepts: narcissism (see Emmons, 1987; Gunderson, Ronningstam, & Smith, 1995; Morf & Rhodewalt, 2001; and Rhodewalt & Morf, 1995, for reviews). Several self-report measures have been constructed to examine pathological narcissism in clinical and normal populations, including the Narcissistic Personality Disorder Scale (Ashby, Lee, & Duke, 1979), the Pathological Narcissism Scale (Millon, 1977), and the Narcissistic Personality Inventory (Emmons, 1984; Raskin & Hall, 1979). These self-report scales tap the defining features of narcissism, such as preoccupation with fantasies of unlimited power and exaggerations of one's achievements and talents, and they have been found to be associated with theoretically pertinent aspects of personality functioning and mental health. It should be noted, however, that these scales were based on consensual definitions embodied in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994), not explicitly on Kohut's (1971, 1977) theory about the development of healthy and pathological narcissism and the dynamic interplay between selfobject needs and a cohesive self.

A more direct attempt to examine Kohut's theory was made by Robbins and Patton (1985), who constructed two self-report measures based on Kohut's (1971) definition of the self-dimensions of grandiosity and idealization. One scale assessed disorders along the grandiosity dimension (e.g., overvaluing one's importance); the other assessed disorders along the idealization dimension (e.g., lack of goal directedness). In line with Kohut's proposals, high scores on these scales were significantly associated with low self-esteem, pathological narcissism, goal instability, and problems in identity formation, interpersonal functioning, and career development during adolescence and adulthood (e.g., Robbins, 1989; Robbins & Dupont, 1992; Robbins, Lee, & Wan, 1994). Following this line of research, Lappan and Patton (1986) constructed a self-report scale tapping problems in autonomy during adolescence, and Lee and Robbins (1995) created a self-report scale tapping individual differences along Kohut's (1984) connectedness dimension.

The studies mentioned above reflect serious attempts to operationalize Kohut's (1971, 1977, 1984) conceptualization of self-dimensions. However, the researchers did not directly examine Kohut's hypothesis that disorders of the self are defined by a strong, archaic hunger for selfobject provisions or denial of selfobject needs. For example, Robbins and Patton's (1985) superiority scale included only one item tapping the selfobject need of mirroring ("Being admired by others helps me feel fantastic") together with nine items tapping a sense of grandiosity.

The Present Studies

The purpose of the studies reported here was to examine some of Kohut's ideas about selfobject needs using methods, measures, and ideas current in personality and social psychology. Specifically, we operationalized each of the three selfobject needs and then examined the hypothesized associations between a person's orientation toward those needs in adulthood and measures of healthy and pathological narcissism, psychological well-being, and personality functioning. In addition, we took advantage of the wealth of constructs and measures in contemporary psychological research related to attachment

orientations toward significant others (e.g., Shaver & Hazan, 1993), self-regulation (e.g., Aspinwall & Taylor, 1997), and self-representations (e.g., Higgins, 1987).

Our studies began with the construction of a self-report scale tapping a person's orientation to selfobject needs in adulthood. The new self-report scale contains items tapping the extent of either (a) hunger for mirroring, idealization, and twinship or (b) avoidance of those three selfobject needs. Using this scale, we examined the independence of the three selfobject needs and the independence between approach and avoidance orientations to those needs. An implication of Kohut's conceptualization of the process of transmuting internalization is that a reduction in hunger for one selfobject provision does not necessarily imply a corresponding change in other selfobject needs. In fact, satisfaction of each selfobject need depends on the opportunities offered by caregivers for mirroring, idealization, or twinship. Moreover, lack of hunger for selfobject provisions does not necessarily imply avoidance of the corresponding needs. In fact, a successful process of transmuting internalization would reduce the hunger associated with these needs without leading people to avoid experiencing them. In our studies, we also examined Kohut's notions about the psychological correlates of these needs. Specifically, we tested hypotheses related to Kohut's claims that strong, archaic selfobject needs or the denial of these needs is linked to pathological narcissism, disorders of the self, and problems in mental health, affect regulation, and interpersonal functioning.

Study 1

The main purpose of Study 1 was to construct a reliable and valid self-report scale to assess a person's approach and avoidance orientation toward the selfobject needs of mirroring, idealization, and twinship. For this purpose, we developed the Selfobject Needs Inventory (SONI) and administered it to a large sample of Israeli participants to examine its factor structure, test–retest reliability, interfactor correlations, and associations with other measures tapping constructs related to Kohut's theory (disorders along the three axes of the self: grandiosity, idealization, and connectedness).

Method

Participants. Participants were 372 Israeli undergraduates (223 women and 149 men, ranging in age from 19 to 41, $Mdn = 23$) who volunteered to participate in the study.

Instruments and procedure. The study was conducted on a group basis with 15–20 participants in each group. Participants were asked to take part in a study on human motivation and to complete the SONI. This scale was originally written in Hebrew and consisted of 38 items (the English version of these items is shown in the Appendix) tapping the strength of approach and avoidance orientations toward the selfobject needs for mirroring, idealization, and twinship. Each item was constructed to tap either an approach or an avoidance orientation to one of the three selfobject needs. Participants read each item and rated the extent to which it was self-descriptive. Ratings were made on a 7-point scale, ranging from *not at all* (1) to *very much* (7).

The SONI is based closely on Kohut's (1971, 1977, 1984) writings and conceptualization of selfobject needs. The scale-development process consisted of the

following stages. First, we constructed a pool of 118 items that seemed to fit Kohut's conceptualization of selfobject needs for mirroring, idealization, and twinship. For each need, we constructed items that reflect a person's "hunger" for a particular selfobject provision as well as items that reflect a person's avoidance of the corresponding need.

In the second stage, we asked seven senior Israeli clinical psychologists to indicate whether each of the 118 items fits Kohut's conceptualization of the selfobject need that the particular item was intended to tap. These psychologists all identified themselves as self psychologists who work within Kohut's theoretical and therapeutic guidelines, teach Kohut's theory in Israeli institutes and universities, and are recognized as the leaders of self psychology in Israel. Each psychologist received a list of the 118 items, organized according to the selfobject need they were intended to tap. Specifically, the psychologists received a sheet with a particular selfobject need in the title (e.g., "hunger for mirroring") and a list of all of the items designed to tap this need. They were asked to read each item and mark a "+" for ones that fit Kohut's definition of the selfobject need in question and a "−" for ones that did not fit Kohut's definition. The psychologists made the ratings separately in their own offices. The ratings of all 118 items exhibited high interjudge reliability (more than 95% agreement between judges; kappa coefficients higher than .60). We therefore summarized judges' ratings and retained 43 items that the seven judges characterized as fitting Kohut's conceptualization of the relevant selfobject need.

In the third stage of scale development, we constructed an initial version of the SONI containing the 43 items retained on the basis of the judges' ratings and administered it to a sample of 295 Israeli undergraduates. We then conducted item and factor analyses to identify items that were not normally distributed or did not correlate highly with the total scale score (r less than .20). Following these steps, we dropped 3 items with skewed distributions and 2 items that correlated too weakly with the total scale score. This left 38 items in the final SONI: 21 items tapping hunger for selfobject provisions and 17 items tapping an avoidance orientation toward selfobject needs.

Results and Discussion

Factor structure. A factor analysis with varimax rotation was conducted on the SONI's 38 items to examine the construct validity of Kohut's conceptualization of approach and avoidance orientations to the selfobject needs for mirroring, idealization, and twinship. This analysis revealed five major factors (eigenvalues >1), which explained 50% of the variance (see factor loadings in Table 1). The first factor (15% of explained variance) included 8 items (loading $>$ .40) that tap an approach orientation ("hunger") toward twinship (e.g., "I feel better when I and someone close to me share similar feelings toward other people," "It is important for me to feel that a close friend and I are 'in the same boat'"). The second factor (12%) included 11 items that tap an avoidance orientation toward the selfobject needs of idealization and twinship (e.g., "I would rather not belong to a group of people whose lifestyle is similar to mine," "I find it difficult to accept guidance even from people I respect"). The items on this factor did not sharply distinguish between these two motivational orientations. Factor 3 (9%) included 7 items that assess an approach orientation toward the need for idealization (e.g., "I am attracted to successful people," "I feel better about myself when I am in the company of experts"). Factor 4 (7%) included 6

Table 1
Factor Loadings of Selfobject Needs Inventory Items After Varimax Rotation (Study 1)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
27	.82				
14	.80				
22	.79				
32	.79				
12	.77				
21	.76				
8	.74				
2	.68				
20		.71			
38		.70			
16		.68			
28		.64			
9		.63			
6		.59			
3		.56			
34		.54			
13		.53			
25		.53			
30		.52			
17			.75		
19			.71		
36			.71		
26			.71		
4			.70		
31			.67		
10			.61		
11				.80	
7				.76	
1				.74	
29				.73	
33				.66	
35				.57	
23					.77
37					.75
24					.71
15					.71
18					.66
5					.51
Cronbach's α	.91	.83	.83	.81	.79

Note. Alphas are for unit-weighted scales based on items with loadings above .40 on a factor. All of the items, listed by the numbers shown above, appear in the Appendix.

items that were theoretically constructed to tap an approach orientation toward the need for mirroring (e.g., "I do not function well in situations where I receive too little attention," "I feel hurt when my achievements are not sufficiently admired"). Finally, Factor 5 (7%) included 6 items that tap an avoidance orientation toward mirroring (e.g., "I do not really care what others think about me," "I do not need support and encouragement from others"). As can be seen in Table 1, Cronbach's alpha coeffi-

cients for unit-weighted scales based on the five factors were acceptable (ranging from .79 to .91), indicating adequate internal consistency for each of the scales.[1]

On the basis of the results of the factor analysis, we computed five SONI scores by averaging items that loaded highly (above .40) on a factor. Pearson correlations revealed significant but weak associations between the hunger for mirroring, hunger for idealization, and hunger for twinship scales (rs ranging from .17 to .19, $p < .01$). Also, a significant but weak association was found between avoidance of mirroring and avoidance of idealization/twinship, $r(370) = .15$, $p < .01$. Avoidance of mirroring was not significantly associated with hunger for mirroring, $r(370) = -.03$, and avoidance of idealization/twinship was not significantly associated with hunger for idealization, $r(370) = .05$, or hunger for twinship, $r(370) = .06$.

Overall, the results are compatible with the idea that hunger for and avoidance of particular selfobject provisions are distinct, as are the three kinds of selfobject needs, although we were not able to distinguish between avoidance of a need for idealization and avoidance of a need for twinship. We attempted to distinguish between these two orientations by using a forced six-factor solution in the reported factor analysis, but this solution was not able to distinguish between the two orientations. Rather, it decomposed other theoretically coherent factors. We therefore decided to accept this single deviation from the expected structure for the purpose of testing the hypotheses under examination in the present article. Further research will be needed to analyze the SONI using item response theory to determine the coverage of the existing items and to discover whether the two forms of avoidance can be empirically distinguished.

Test–retest reliability. A subsample of 80 participants completed the SONI twice, 2 months apart. Alpha coefficients for each of the five SONI scales were high at both times (between .83 and .89 at Time 1; between .81 and .91 at Time 2). Moreover, test–retest reliability coefficients were high for each of the five scales (ranging from .84 to .87). These results indicate high internal consistency and stability over a 2-month period for each of the five SONI scales.

Gender and age differences. A series of t tests revealed no significant association between gender and scores on the five SONI scales. Pearson correlations revealed no significant associations between age and the five scales.[2]

Concurrent validity. A subsample of 75 participants completed the SONI together with Robbins and Patton's (1985) scales of superiority (10 items, Cronbach's $\alpha = .75$) and goal instability (10 items, $\alpha = .74$) and Lee and Robbins's (1995) lack of connectedness scale (8 items, $\alpha = .78$). These scales were designed to tap Kohut's conceptualization of disorders along the three axes of the self—grandiosity, idealization, and connectedness—and hence should be associated with SONI scores. In fact, Kohut (1984) hypothesized that hunger for or avoidance of selfobject provisions is associated with disorders of the self. In support of this view, a canonical correlation between the set of five SONI scores and

[1]The five-factor structure of the SONI was replicated in a confirmatory factor analysis conducted on the collapsed samples of Studies 2–7 ($N = 573$). The overall goodness of fit of the model assuming that the 38 SONI items load onto five separate unrelated factors was assessed using the LISREL VII program (Jöreskog & Sörbom, 1984). The findings indicated an adequate fit between the theoretical model and the data: A chi-square test yielded a nonsignificant difference between the model's implied correlations and the data correlation matrix, and the goodness-of-fit index (.98) and the adjusted goodness-of-fit index (.95) were high.

[2]Findings from Studies 2–7 also revealed that gender and age were not significantly associated with the five SONI scales.

the superiority, goal instability, and lack of connectedness scores yielded a significant association, $rc = .44$, $F(15, 186) = 2.97$, $p < .01$.

Pearson correlations revealed a pattern of theoretically coherent associations: (a) The superiority score was significantly related to hunger for mirroring, $r(73) = .35$, $p < .01$, and avoidance of mirroring, $r(73) = .34$, $p < .01$; (b) the goal instability score was significantly associated with hunger for idealization, $r(73) = .32$, $p < .01$; and (c) the lack of connectedness score was significantly associated with hunger for twinship, $r(73) = .29$, $p < .01$, and avoidance of twinship/idealization, $r(73) = .36$, $p < .01$. Other correlations ranged from .01 to .08 and were not significant.

This pattern of correlations provided strong evidence for the concurrent and discriminant validity of the SONI scores. Deficits in the provision of mirroring (high scores on the hunger for mirroring and avoidance of mirroring factors) were associated with problems on the grandiosity axis (superiority score) but not with problems on the idealization and connectedness axes. Moreover, deficits in the provision of idealization were associated with problems on the idealization axis (goal instability score) but not with problems on the grandiosity and connectedness axes. Deficits in the provision of twinship were associated with problems on the connectedness axis (lack of connectedness score) but not with grandiosity-related problems. Of importance, the correlations were moderate (ranging from .29 to .36), implying that the SONI scores were not redundant with existing scales measuring disorders of the self.

Conclusions. Overall, the findings support Kohut's conceptualization of selfobject needs and show that the SONI has good psychometric properties. First, the scales clearly differentiated between approach and avoidance tendencies, thereby validating the conceptualization of independently developing hunger for and avoidance of certain selfobject provisions. Second, the factor analysis sorted approach-orientation items into Kohut's three categories (need for mirroring, need for idealization, and need for twinship), and interfactor correlations indicated only weak associations between these different motivational orientations. With respect to the avoidance items, the factor analysis and interfactor correlations indicated that participants differentiated between avoidance of mirroring and avoidance of other selfobject needs but failed to differentiate between avoidance of idealization needs and avoidance of twinship needs. Third, reliability analyses revealed that the five SONI scales had acceptable internal consistency and exhibited impressive stability over a 2-month period. Fourth, theoretically coherent associations were found between the SONI scores and scales tapping disorders of the self.

Overall, the SONI contains five well-differentiated and reliable factors that correspond to Kohut's conceptualization of hunger for and avoidance of selfobject provisions. Furthermore, as predicted, these factors are associated with problems related to the grandiosity, idealization, and connectedness axes of the self. Even though two of the forms of avoidance merged into a single factor, we consider the SONI adequate as a preliminary vehicle for exploring several of Kohut's (1971, 1977, 1984) key ideas.

Study 2

The main purpose of Study 2 was to examine Kohut's (1977, 1984) hypothesis that strong hunger for selfobject provisions or the development of an avoidance orientation toward selfobject needs is associated with interpersonal maladjustment and problems in forming and maintaining close relationships. Kohut (1977, 1984) reasoned that parents of children who were destined to become maladjusted adults had not satisfied their children's

selfobject needs, which caused the children later on to enter close relationships with worries and anxieties about their partners' good will. Such people were thought by Kohut to be motivated to satisfy frustrated narcissistic needs or defend themselves from further frustration of these needs, which caused them to view relationship partners as selfobjects rather than as independent persons with their own legitimate concerns. That is, people whose selfobject needs were unsatisfied were expected to view partners as providing opportunities for fulfillment of frustrated selfobject needs or as causes of narcissism-related frustration and pain. This narcissistic orientation would be a potential source of relationship worries and conflicts.

To examine this hypothesis, we administered the SONI together with a series of measures designed to assess problems in interpersonal functioning. First, we assessed a person's *attachment style* (Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987), focusing on signs of attachment insecurity in the form of attachment anxiety or attachment avoidance. Attachment *anxiety* includes negative views of the self, a strong desire for closeness in relationships, and a tendency to worry about abandonment. Attachment *avoidance* refers to negative views of others and a defensive inclination to avoid closeness and dependency (Brennan et al., 1998). High scores on these attachment dimensions have been associated with interpersonal maladjustment and problems in the formation and maintenance of close relationships (see Feeney, 1999; Mikulincer & Shaver, 2003; Shaver & Clark, 1994; and Shaver & Hazan, 1993, for reviews). Second, we assessed a person's *fear of intimacy* (Descutner & Thelen, 1991), which includes problems in exchanging personal information, thoughts, and feelings with close others and in promoting and maintaining a sense of togetherness. Fear of intimacy has been shown to be associated with attachment avoidance as well as with other problems in interpersonal functioning (e.g., Descutner & Thelen, 1991). Third, we assessed a person's *rejection sensitivity*—the disposition to anxiously anticipate rejection (Downey, Bonica, & Rincon, 1999; Downey & Feldman, 1996). Prior research has established links between rejection sensitivity and problems in close relationships.

An additional purpose of Study 2 was to examine the discriminant validity of the SONI scales. For this purpose, we asked participants to complete two self-report measures of socially desirable responding and social orientation. Although these two constructs refer to basic social motivations, they are not theoretically related to selfobject needs. Responding in a socially desirable fashion reflects a need for social approval, which might be confounded with the selfobject need for mirroring if the SONI mirroring scale is too broad or vague. This selfobject need involves a desire to be admired and esteemed, not merely approved by others. In fact, whereas socially desirable responding reflects a desire to be perceived as behaving like other people, the selfobject need for mirroring generates a desire to be superior to other people. The second potentially confounded variable, social orientation, reflects a general approach orientation toward social interaction, which might be confused with an approach orientation to selfobject needs. However, whereas social orientation does not refer to any narcissistic need or any specific kind of social relationship, selfobject needs refer to a specific type of relationship in which the partner is mainly perceived as a source of narcissistic satisfaction. We hypothesized that the SONI scales would not be associated with measures of social desirability and social orientation.

Method

Participants. Ninety-six Israeli undergraduates (60 women and 36 men, ranging in age from 18 to 40, $Mdn = 22$) volunteered to participate in the study without reward.

Instruments and procedure. The study was conducted on a group basis with 15–20 participants in each group. Participants were told that they would participate in a study on motivation and close relationships. Questionnaire order was randomized across participants.

Participants completed the 38-item SONI. In Study 2, Cronbach's alphas for the five SONI scales were acceptable (need for mirroring, .77; need for idealization, .84; need for twinship, .88; avoidance of mirroring, .75; avoidance of idealization/twinship, .91).[3]

So that we could assess problems in interpersonal functioning, participants completed three self-report scales. First, they completed a Hebrew version of the Experiences in Close Relationships Scale (Brennan et al., 1998), which assesses attachment style. This self-report scale consists of 36 items tapping the two basic dimensions of attachment organization: anxiety and avoidance (18 items per dimension). Brennan et al. (1998) have shown that a two-dimensional model of anxiety and avoidance underlies most measures of adult attachment style. Participants rated the extent to which each item was descriptive of their feelings in close relationships on a 7-point scale, ranging from *not at all* (1) to *very much* (7). The reliability and validity of the scale have been demonstrated (Brennan et al., 1998). In the current sample, Cronbach's alphas were high for the 18 anxiety items (.89) and the 18 avoidance items (.91). As intended by the scale's creators, no significant association was found between the two scores ($r = .17$).

Second, participants completed a Hebrew version of the Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman, 1996). The RSQ describes 18 hypothetical situations in which participants are asked to imagine requesting something from a significant other. Participants rated (a) their degree of concern about the outcome of each situation on a 6-point scale, ranging from *very unconcerned* (1) to *very concerned* (6) and (b) the likelihood that the other person(s) would respond in an accepting fashion on a 6-point scale, ranging from *very unlikely* (1) to *very likely* (6). Downey and Feldman (1996) recommended computing a rejection sensitivity score for each situation by multiplying the expected likelihood of rejection (reversing the acceptance expectancy ratings) by the degree of anxiety about the outcome. The RSQ has been shown to be reliable and valid (Downey & Feldman, 1996). In the current sample, Cronbach's alpha for the 18 items was high (.93).

Third, participants completed a Hebrew version of the 35-item Fear of Intimacy Scale (FIS; Descutner & Thelen, 1991). They rated the extent to which an item was self-representative on a 6-point scale, ranging from *not at all* (1) to *very much* (6). The FIS has been found to be reliable and valid (Descutner & Thelen, 1991; Doi & Thelen, 1993). In the current sample, Cronbach's alpha for the FIS items was high (.94).

So that we could assess the SONI's discriminant validity, participants completed a Hebrew version of the 32-item Marlowe–Crowne Social Desirability Scale (Crowne & Marlowe, 1964; Cronbach's $\alpha = .74$). Higher scores reflect a stronger tendency to provide socially desirable responses. Participants also completed a Hebrew version of the 29-item Interpersonal Orientation Scale (Swap & Rubin, 1983). Participants rated the extent to which they agreed with each item on a 5-point scale, ranging from *not at all* (1) to *very much* (5) (Cronbach's $\alpha = .72$). Higher scores indicate a more positive social orientation.

[3] In all of the studies reported here, participants completed a Hebrew version of the SONI. The Hebrew versions of all of the other scales used in Studies 2–7 have been constructed and validated in previous studies conducted with Israeli samples.

Results and Discussion

A canonical correlation between the set of five SONI scales and the set of four interpersonal functioning scores (attachment anxiety, attachment avoidance, rejection sensitivity, and fear of intimacy) yielded a significant association, $rc = .48$, $F(20, 290) = 6.80$, $p < .01$. Pearson correlations revealed that hunger for mirroring, idealization, and twinship were significantly associated with attachment anxiety and rejection sensitivity (see Table 2). That is, the higher a person's attachment anxiety and the higher his or her rejection sensitivity are, the stronger is his or her hunger for mirroring, idealization, and twinship. Pearson correlations also revealed significant positive associations between avoidance of selfobject needs, for both mirroring and idealization/twinship, and scores on attachment avoidance and fear of intimacy. The higher a person's attachment avoidance and the higher his or her fear of intimacy are, the stronger was the avoidant orientation toward selfobject needs.

A canonical correlation between the set of five SONI scales and the set of two general social motives (social desirability and social orientation) was not significant, $rc = .12$, $F(15, 243) = 1.17$, which supports the discriminant validity of the SONI scales. In addition, most of the Pearson correlations revealed no significant link between SONI scales and scores on social desirability and social orientation (see Table 2). The single exception was a significant inverse association between avoidance of idealization/twinship and social desirability.

The findings provide strong support for the construct and discriminant validity of the SONI. More important, they are in line with Kohut's (1977, 1984) proposal that deficits

Table 2
Pearson Correlations of the Selfobject Needs Inventory Scales With Measures of Problems in Interpersonal Functioning, Narcissistic Personality, Mental Health, and Self-Esteem (Studies 2–4)

Measure	Need for Mirroring	Need for Idealization	Need for Twinship	Avoidance of Mirroring	Avoidance of Idealization/Twinship
Study 2					
Attachment anxiety	.44**	.45**	.41**	.01	.17
Attachment avoidance	.10	−.01	.12	.45**	.49**
Rejection sensitivity	.34**	.43**	.38**	−.01	.16
Fear of intimacy	−.15	.10	.13	.40**	.34**
Social desirability	−.07	−.15	−.02	.01	−.21*
Social orientation	−.06	−.02	−.02	−.10	.07
Study 3					
NPI Leadership	−.02	.17	−.02	.12	−.15
NPI Self-Admiration	.36**	.13	−.10	.10	.44**
NPI Superiority	.30**	.17	−.11	.16	.33**
NPI Exploitiveness	.46**	.14	−.17	−.07	.37**
Study 4					
Psychological well-being	−.32**	−.09	−.30**	−.03	−.22*
Depression	.36**	.11	.31**	.05	.34**
Anxiety	.41**	.16	.22*	.03	.36**
Hostility	.06	.04	.13	.24**	.50**
Self-esteem	−.44**	−.10	−.27**	−.08	−.17

Note. NPI = Narcissistic Personality Inventory.
* $p < .05$. ** $p < .01$.

in selfobject provisions are related to problems in interpersonal functioning. The findings can be summarized in terms of two patterns of specific associations. First, hunger for selfobjects was significantly associated with attachment anxiety in general and with worries about rejection in particular. This pattern reveals the interpersonal insecurities and deficiencies of individuals who have strong selfobject needs in adulthood. Such people approach close relationships with hunger for closeness and dependency, defining features of attachment anxiety, as well as with worries about rejection and abandonment. It seems that both hunger for selfobjects and attachment anxiety are associated with clinging to others so as to attain security and relief from distress.

Second, avoidance of selfobject needs was significantly associated with attachment avoidance in general and fear of intimacy in particular. This pattern confirms the defensive nature of the avoidance of selfobject needs. Such avoidance may be part of a broader defensive strategy by which people avoid closeness and intimacy in order to protect themselves from the frustration of selfobject needs, as well as protecting themselves from social rejection following the overt expression of these needs. These findings suggest that both avoidance of selfobject needs and attachment avoidance reflect a defensive stance against the unwanted recurrence of painful and frustrating interpersonal events.

Study 3

The main goal of Study 3 was to examine Kohut's (1977, 1984) theoretical proposal that hunger for selfobjects and avoidance of selfobject needs in adulthood are underlying psychodynamic components of the narcissistic personality. To examine this hypothesis, we administered the SONI together with the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979). This questionnaire was created to assess individual differences in the extent to which a grandiose sense of self and a grandiose fantasy life combine with hypersensitivity, exhibitionism, feelings of entitlement, interpersonal exploitiveness, and a lack of empathy for others to form dominant themes in one's personality (Emmons, 1984; Morf & Rhodewalt, 2001; Rhodewalt & Morf, 1995). These themes are the core components of the criteria for narcissistic personality as described in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994) and are in line with Kohut's (1971, 1977) definition of pathological narcissism. The NPI is the most widely used self-report measure of narcissism for nonclinical populations and has been shown to be reliable and valid (e.g., Emmons, 1984, 1987). Factor analyses of the NPI (Emmons, 1984, 1987) suggest that it contains four factors: Leadership/Authority, Self-Absorption/Self-Admiration, Superiority/Arrogance, and Exploitiveness/Entitlement.

Method

Participants. One hundred ten Israeli undergraduates (69 women and 41 men, ranging in age from 19 to 41, $Mdn = 22$) volunteered to participate in the study.

Instruments and procedure. The study was conducted on a group basis with 15–20 participants in each group. Participants were asked to complete a battery of scales dealing with motivation and personality. The order of the questionnaires was randomized across participants.

Participants completed the 38-item SONI. In the Study 3 sample, Cronbach's alphas for the five factors were acceptable (need for mirroring, .74; need for idealization, .77; need for twinship, .85; avoidance of mirroring, .72; avoidance of idealization/twinship, .78). Participants also completed the 37 NPI items that Emmons (1987) found to load

highly on one of the four factors of the scale. The Leadership/Authority factor consisted of 9 items; the Self-Absorption/Self-Admiration factor, 9 items; the Superiority/Arrogance factor, 11 items; and the Exploitiveness/Entitlement factor, 8 items. For each item, participants received a pair of sentences and were asked to choose the one that was most self-descriptive. One of the sentences reflected a component of the narcissistic personality. Four scores were computed by summing the number of narcissistic sentences participants endorsed from each of the four factors. In our sample, Cronbach's alphas for the four factors were acceptable (ranging from .75 to .86).

Results and Discussion

A canonical correlation between the set of five SONI scales and the set of four NPI scores yielded a significant association between selfobject needs and narcissistic personality, $rc = .41$, $F(20, 336) = 4.30$, $p < .01$. As can be seen in Table 2, this canonical correlation was derived from two specific patterns of bivariate associations. First, hunger for mirroring was significantly and positively associated with the Self-Absorption/Self-Admiration, Superiority/Arrogance, and Exploitiveness/Entitlement scales from the NPI. Second, avoidance of idealization/twinship was also significantly and positively associated with these three NPI scales. Selfobject needs for idealization and twinship as well as the avoidance of mirroring were not significantly associated with NPI scores. Moreover, the NPI Leadership/Authority scale was not significantly associated with the SONI scales.

The findings support Kohut's (1971) general claim that selfobject needs or the denial of these needs in adulthood underlies the development of a narcissistic personality. Furthermore, the results refine this general claim by delineating the specific selfobject needs that are significantly related to narcissistic personality. Specifically, this personality pattern is characterized by a strong need for mirroring as well as an avoidance orientation toward idealization and twinship. It seems that narcissistic individuals (those scoring high on self-absorption/self-admiration, superiority/arrogance, and exploitiveness/entitlement) have a strong need to be admired by others, while at the same they avoid expressing their need for guidance from a powerful other or for twinship experiences. In fact, individuals who feel superior to others and treat other people in an exploitive manner need to be admired by others and deny that others are better than or similar to themselves in order to maintain their sense of a grandiose self. For them, doing well, or as well as others, is insufficient; they must do better than everyone else, creating distance between themselves and those less valued others (Robins, Tracy, & Shaver, 2001).

It is interesting that the NPI Leadership/Authority factor was not significantly related to any of the SONI scores. It seems that this NPI factor is fairly different from the others and is less related to pathological forms of narcissism. This conclusion is compatible with existing evidence. For example, Emmons (1987) reported that the Leadership/Authority factor was the only NPI factor that was inversely related to negative self-focused responses and was not significantly related to instability or intensity of positive and negative affective experiences. Moreover, Raskin and Terry (1988) found that Leadership/Authority items were significantly correlated with adaptive and positive personal traits, such as assertiveness, leadership, self-confidence, and independence. In fact, a detailed analysis of these items reveals that most of them tap healthy manifestations of narcissism, or what Kohut (1971) called a healthy grandiose sense of self—for example, "I see myself as a good leader" and "I'm assertive."

It is important to note that because narcissism was assessed only with the NPI, we do not know whether narcissism really involves only two selfobject needs or whether the NPI

taps only certain aspects of narcissism. Although the NPI is to date the most validated measure of narcissism, it clearly does not tap feelings of worthlessness and other related aspects of narcissistic disorders. Thus, in order to obtain a better assessment of the relationship between selfobject needs and narcissism, future research should include multiple measures of narcissism.

Study 4

The main goal of Study 4 was to examine Kohut's (1977, 1984) claim that strong hunger for selfobjects and avoidance of selfobject needs in adulthood are the underlying determinants of low self-esteem and emotional maladjustment. To test this hypothesis, we administered the SONI together with the Mental Health Inventory (MHI; Veit & Ware, 1983), which assesses psychological well-being, depression, anxiety, and hostility, and the Rosenberg (1979) Self-Esteem Scale.

Method

Participants. One hundred thirty Israeli undergraduates (94 women and 36 men, ranging in age from 18 to 30, $Mdn = 22$) volunteered to participate in this study.

Instruments and procedure. The study was conducted on a group basis with 15–20 participants in each group. Participants were asked to complete three scales dealing with motivation and emotions, and although they are listed in a particular order here, the presentation order was randomized across participants in the study itself. First, they completed the 38-item SONI. In the Study 4 sample, Cronbach's alphas for the five SONI scales were acceptable (need for mirroring, .85; need for idealization, .81; need for twinship, .89; avoidance of mirroring, .71; avoidance of idealization/twinship, .85). Second, participants completed a Hebrew version of Rosenberg's (1979) 10-item Self-Esteem Scale. Ratings were made on a 4-point scale, ranging from *strongly disagree* (1) to *strongly agree* (4). In our sample, Cronbach's alpha for the 10 items was high (.90). Third, participants completed a Hebrew version of Veit and Ware's (1983) 38-item MHI. Ratings were made on a 6-point scale, ranging from *complete confirmation* (6) to *complete rejection* (1) of applicability of the item to the participant over the preceding 2 weeks. The MHI consists of 14 positive state items that define psychological well-being, 8 items that assess depression, 8 items that tap anxiety, and 8 items that gauge hostility and anger reactions. In the current sample, alphas for the four MHI subscales ranged from .81 to .91.

Results and Discussion

A canonical correlation between the set of five SONI scales and the set of self-esteem and MHI scores yielded a significant multivariate association, $rc = .36$, $F(25, 448) = 5.04$, $p < .01$. Pearson correlations revealed that (a) hunger for mirroring and hunger for twinship were significantly related to low scores on self-esteem and psychological well-being as well as high scores on depression, anxiety, and self-esteem; (b) avoidance of idealization/twinship was significantly associated with low scores on psychological well-being and high scores on anxiety, depression, and hostility; and (c) avoidance of mirroring was significantly related to high scores on hostility (see Table 2). Beyond computing zero-order correlations between selfobject needs and mental health, we also computed partial correlations between these measures, statistically controlling for variations in self-esteem. Kohut (1971) claimed that difficulties in maintaining self-esteem due to the deprivation of selfobject experiences were the link between selfobject needs and

psychological disorders. Therefore, controlling statistically for variation in self-esteem should significantly reduce the association between SONI scores and reports of psychological well-being, anxiety, depression, and hostility. The findings partially support this hypothesis. Whereas the statistical control of self-esteem sharply reduced the significant correlations between hunger for mirroring and twinship and scores on well-being, anxiety, and depression (partial *r*s of −.07, .05, and .09 in the case of need for mirroring; partial *r*s of −.04, .08, and .04 in the case of need for twinship), it did not notably change the correlations between avoidance of idealization/twinship and scores on well-being, anxiety, depression, and hostility (partial *r*s of −.20, .30, .32, and .47) or the correlation between avoidance of mirroring and hostility (partial $r = .23$). That is, variations in self-esteem seemed to explain the contribution of hunger for selfobjects to mental health problems but failed to explain the contribution of avoidance of these needs.

Overall, the findings support Kohut's (1971) general proposal that selfobject needs and the denial of these needs in adulthood are associated with emotional maladjustment. The results allow us to refine this general proposal by delineating the specific selfobject needs that contribute to different forms or signs of maladjustment. On the one hand, hunger for mirroring and hunger for twinship significantly contributed to forms of emotional maladjustment related to difficulties in maintaining self-esteem. Specifically, these two selfobject needs were associated with low self-esteem and high levels of emotional distress. Moreover, the associations between selfobject needs and emotional distress were mediated by low self-esteem; that is, unmet selfobject needs for mirroring and twinship seem to have contributed to low self-esteem, which in turn contributed to anxiety and depression. Of course, these unmet selfobject needs can also lead to the formation of a defensive facade of self-worth. However, this defensive stance would be related to the denial of these needs and can be assessed only by more implicit measures of self-esteem. This pathway supports Kohut's ideas about the development of emotional maladjustment and fits with cognitive approaches that emphasize the importance of the self in explaining negative affectivity (see Segal, 1988, for a review).

In contrast, avoidance of selfobject needs significantly contributed to forms of emotional maladjustment that were not related to difficulties in maintaining self-esteem. Although avoidance of these needs was related to low levels of psychological well-being and high levels of depression, anxiety, and hostility, such avoidance was not significantly associated with self-esteem. Moreover, self-esteem failed to explain the significant associations between avoidance of selfobject needs and signs of emotional maladjustment. This pattern of findings does not support Kohut's ideas about the formation of psychological disorders. However, it fits with recent research on narcissism, which shows that high NPI scores, found here to be associated with avoidance of selfobject needs (see Study 3), were not related to self-reports of low self-esteem. The effect of avoidance of selfobject needs on emotional maladjustment, particularly on hostility, could not be explained by negative self-views (e.g., Rhodewalt, Madrian, & Cheney, 1998; Rhodewalt & Morf, 1995). It is possible that avoidance of selfobject needs leads to defensive exclusion of negative information about the self, an inflated self-view, and psychological disorders that appear despite or even because of this self-inflation response, such as hostile responses to others (Rhodewalt & Morf, 1998) and the self-critical form of depression described by Blatt et al. (Blatt, 1974; Blatt, D'Afflitti, & Quinlan, 1976).

These differential associations resemble the pattern of findings observed in Study 2, in which selfobject needs were significantly related to attachment anxiety, whereas avoidance of these needs was significantly related to attachment avoidance. Previous studies have shown that attachment anxiety is related to anxiety, depression, and low self-esteem

(see Mikulincer & Florian, 2001, and Shaver & Hazan, 1993, for reviews) and that attachment avoidance is related to the self-critical form of depression (Zuroff & Fitzpatrick, 1995) and to anger and hostility (Mikulincer, 1998b; Mikulincer, Florian, & Weller, 1993). Moreover, studies have consistently shown that attachment avoidance is not significantly associated with overt reports of low self-esteem (Mikulincer, 1995). Thus, there seem to be two patterns of negative emotional responses. The first consists of low self-esteem and related signs of emotional maladjustment together with an anxious search for love, admiration, and connection to others. The second consists of hostility and emotional maladjustment unrelated to a negative self-view together with avoidance of both attachment and selfobject needs.

It is important to note that Rosenberg's (1979) Self-Esteem Scale taps only explicit manifestations of self-esteem. It is possible that the use of more implicit measures of self-esteem would reveal that the association between avoidance of idealization/twinship needs and mental health problems is still mediated by self-esteem problems. Avoidance of selfobject needs may lead to defensive exclusion of negative self-images. Thus, self-esteem problems could be manifested only in implicit measures of self-esteem. Future research should assess both explicit and implicit manifestations of self-esteem.

Of interest, only hunger for idealization was not significantly associated with any of the mental health and self-esteem scores. It seems that the hunger for powerful idealized figures is not necessarily associated with negative emotions. We comment on this unexpected finding in the General Discussion.

Study 5

In Study 5, we examined Kohut's (1971) broad notion that hunger for selfobjects or avoidance of selfobject needs are associated with lack of cohesiveness or coherence of self-representations. In Study 5 we focused on one important aspect of self-cohesiveness: the coherence among different facets of the self. According to Higgins (1987), people encode information about different facets of the self, which can be classified according to two dimensions: domains of the self and standpoints on the self. The basic domains are the *actual self,* the attributes that someone believes the person possesses; the *ideal self,* the attributes that someone would like the person to possess; and the *ought self,* the attributes that someone believes the person should possess. The basic standpoints are the person's own view of his or her self, and beliefs about the way significant others perceive him or her.

According to Higgins (1987), strong discrepancies between different domains of and standpoints on the self indicate lack of self-cohesion, because the person has difficulty integrating incoherent and even antagonistic information about the self. Higgins (1987) also proposed that a discrepancy between two facets produces discomfort, and that different kinds of discrepancy produce different kinds of distress (e.g., Higgins, Bond, Klein, & Strauman, 1986; Higgins, Klein, & Strauman, 1985). We hypothesized that hunger for selfobjects or avoidance of selfobject needs, which are assumed to underlie problems in self-cohesion, would be significantly associated with larger discrepancies among the various domains of and standpoints on the self.

In examining this hypothesis, we administered the SONI together with the Selves Questionnaire (Higgins et al., 1985), in response to which participants listed 10 traits associated with one specific facet of the self. Specifically, participants were asked to provide attributes for five facets of the self: (a) actual self from their own point of view;

(b) ideal self from their own point of view; (c) ought self from their own point of view; (d) actual self from their best friend's point of view; and (e) ideal self from their best friend's point of view. Semantic and quantitative discrepancies were calculated between each pair of facets, and their associations with the five SONI scales were assessed.

Method

Participants. Eighty-two Israeli undergraduates (58 women and 24 men, ranging in age from 20 to 36, *Mdn* = 23) volunteered to participate in the study.

Instruments and procedure. The study was conducted on a group basis with 15–20 participants in each group. Participants were asked to complete the 38-item SONI and the Selves Questionnaire (Higgins et al., 1986) in a random order. In the Study 5 sample, Cronbach's alphas for the five SONI scales were acceptable (need for mirroring, .83; need for idealization, .80; need for twinship, .88; avoidance of mirroring, .81; avoidance of idealization/twinship, .88). In the Selves Questionnaire, participants received three sheets of paper and listed on each one 10 attributes that define their actual self, ideal self, or ought self from their own point of view. Higgins's (1987) definitions of each domain were provided at the top of each sheet. Next, participants rated the extent to which they actually possessed, ideally would possess, or ought to possess the attribute, using a scale ranging from 1 (*a little*) to 4 (*extremely*). In addition, they received two sheets of paper and listed on each one 10 attributes that they believed their best friend would use to characterize their (the participant's) actual self or ideal self. They also rated the extent to which their best friend believed they (the participant) actually or ideally possessed the attribute on a scale ranging from 1 (*a little*) to 4 (*extremely*).

On the basis of Higgins et al.'s (1986) computational procedure, we calculated three discrepancies between domains of the self from the person's own point of view (actual–ideal, actual–ought, and ideal–ought). We also computed discrepancies between standpoints of the self (a person's own view vs. his or her perception of a best friend's view) with regard to actual self-representations and ideal self-representations. For each discrepancy score, we counted (a) the number of semantic mismatches (i.e., the number of attributes in one domain/standpoint that had semantic opposites on the other domain/standpoint), (b) the number of mismatches of extent (i.e., the number of synonyms that appeared in two domains/standpoints and differed in extent by more than 1 scale point), and (c) the number of matches (i.e., the number of synonyms that appeared in two domains/standpoints and did not differ in extent by more than 1 point). Semantic matches and mismatches were operationalized using a Hebrew–Hebrew dictionary. Semantic mismatches were given a weight of 2, and mismatches of extent and matches were given a weight of 1; the two types of mismatches were summed, and the matches were subtracted from the sum. On this basis, we computed three discrepancy scores between domains of the self (actual–ideal, actual–ought, and ideal–ought) and two discrepancy scores between standpoints on the self (own vs. best friend's view of actual self and own vs. best friend's view of ideal self).

Results and Discussion

A canonical correlation between the set of five SONI scales and the set of five self-discrepancy scores yielded a significant multivariate association, $rc = .37$, $F(25, 269) = 2.05$, $p < .01$. Pearson correlations revealed that the needs for twinship and mirroring were significantly associated with all five self-discrepancy scores (see Table 3). No other correlations were significant. That is, greater discrepancies between domains of

Table 3
Pearson Correlations Between Selfobject Needs Inventory Scales and Measures of Self-Discrepancies, Self-Differentiation, and Pervasiveness of Affect to Self-Structure (Studies 5–6)

Self-structure score	Need for Mirroring	Need for Idealization	Need for Twinship	Avoidance of Mirroring	Avoidance of Idealization/Twinship
Study 5					
Actual self–ideal self	.43**	.11	.41**	.03	−.08
Actual self–ought self	.34**	.04	.37**	.12	−.01
Ideal self–ought self	.36**	.11	.27*	−.02	.08
Actual person/friend	.33**	.02	.30**	.13	−.01
Ideal person/friend	.32**	.03	.26*	−.05	.10
Study 6					
Number of self-aspects	−.24*	.04	−.32**	.09	.02
Self-distinctiveness	−.43**	−.01	−.35**	.13	.01
Positive affect labels	−.07	.17	−.01	.14	.03
Negative affect labels	.41**	−.05	.36**	−.05	.08
Mixed affect labels	−.18	−.03	.05	−.07	.07

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

the self and between standpoints on the self were associated with stronger needs for twinship and mirroring.

The findings are consistent with Kohut's idea that selfobject needs are associated with lack of self-cohesiveness. Specifically, they indicate that the stronger the hunger for mirroring and twinship, the greater the discrepancies between various facets and domains of the self. However, this conclusion cannot be generalized to the need for idealization or to avoidance of selfobject needs, which were not significantly associated with self-discrepancies. In integrating this finding with the findings of Study 4 concerning variations in self-esteem, we can conclude that avoidant defenses actually *work* to some extent, preventing the formation of self-discrepancies and disruption of the sense of self-worth.

Study 6

In Study 6, we further examined the hypothesized association between selfobject needs and self-cohesion by focusing on another aspect of a cohesive self: cognitive differentiation of the self-structure. Self-differentiation refers to the number of self-aspects a person uses for organizing information and to these self-aspects' degree of distinctiveness—the extent to which self-aspects include nonoverlapping sets of information (Linville, 1985). Highly differentiated individuals organize their experiences in terms of a large number of context-specific self-aspects. These people can distinguish among different parts of the self and analyze information using different perspectives. Less differentiated individuals categorize information into a few redundant self-aspects. These people have few options for analyzing information and are unable to prevent the spread of the impact of experience with one self-aspect to other aspects. Low differentiation is related to affective extremity, the spreading of negative affect over the self-structure (Linville, 1985), and pervasiveness of affect in the self-structure (Pietromonaco, 1985). People with low self-differentiation tend to

organize their self-structure with reference to a simple and accessible affective criterion (e.g., whether the information makes one feel good or bad) and tend to sort self-attributes into only a few broad affective categories. According to Linville (1985), lack of self-differentiation prevents adequate regulation of distress and may create problems in maintaining a stable sense of self-worth.

Self-differentiation can be viewed as compatible with Kohut's construct of a cohesive self, because the basic function of self-cohesion is to regulate affect and maintain self-esteem. Accordingly, lack of self-differentiation can indicate problems in the accomplishment of these regulatory functions. We therefore hypothesized that hunger for selfobjects and avoidance of selfobject needs would be associated with lower levels of self-differentiation and more pervasive affect in the self-structure. To examine this hypothesis, we administered the SONI together with a trait-sorting task (Linville, 1985) in which participants sorted traits into categories that described different aspects of themselves and supplied a label for each of the categories. The number and distinctiveness of the categories served as indexes of self-differentiation, whereas the labels revealed whether categorization was based on affective or nonaffective criteria.

Method

Participants. Ninety-five Israeli undergraduates (63 women and 32 men, ranging in age from 17 to 42, $Mdn = 23$) volunteered to participate in the study.

Instruments and procedure. The study was conducted on an individual basis and was presented as a study of motivation and personality. All participants completed the SONI and a trait-sorting task. Half completed the SONI first and half completed the trait-sorting task first. In the Study 6 sample, Cronbach's alphas for the five SONI scales were acceptable (need for mirroring, .87; need for idealization, .81; need for twinship, .91; avoidance of mirroring, .84; avoidance of idealization/twinship, .79).

In the trait-sorting task, participants received a packet of 88 randomly ordered cards, each containing the name of a trait drawn from Anderson's (1968) list of personality trait adjectives. The positivity or negativity of the traits was determined by Israeli norms for Anderson's likability ratings. Thirty-three traits with likability ratings lower than 257 (e.g., *worried*), 33 traits with likability ratings higher than 311 (e.g., *generous*), and 22 traits with ratings between 257 and 311 (e.g., *talkative*) were classified as negative, positive, and neutral, respectively. Participants received the cards and were asked to think about themselves and "sort those traits that are descriptive of you into groups according to which traits you think belong together." Participants were told that traits could be sorted on any meaningful basis and that each group might represent a different aspect of the self. They were also told that they could form as many or as few groups as they thought meaningful, that a trait could be placed in more than one group, and that they did not have to use every trait. Upon completing the sorting task, participants were asked to give a name to each group of traits ("label the particular aspect of yourself represented by each group").

Two differentiation scores were computed for each participant: (a) the number of self-aspects (categories) participants differentiated while describing themselves and (b) the degree of distinctiveness of these self-aspects—specifically, the mean proportion of attributes that were exclusively sorted into one self-aspect (and not the others) from the total number of attributes sorted into that aspect. The participant-provided category labels were content analyzed by two graduate students who were blind to the aims of the study.

Judges read each label and coded it as expressing positive affect ("traits I like about myself"), negative affect ("my bad qualities"), mixed affect ("my strengths and weaknesses"), or nonaffective themes ("my academic aptitudes"). The judges agreed in more than 95% of the cases. When a mismatch occurred, the authors decided on a label. For each participant, we computed the proportion of positive affect labels, negative affect labels, and mixed affect labels from the total number of labels he or she gave to the sorted categories.

Results and Discussion

A canonical correlation between the set of five SONI scales and the set of trait-sorting scores yielded a significant association between selfobject needs and trait sorting, $rc = .40$, $F(25, 317) = 2.99$, $p < .01$. As can be seen in Table 3, Pearson correlations revealed that the needs for twinship and mirroring were (a) significantly and inversely associated with the number of differentiated self-aspects and the distinctiveness of these self-aspects and (b) significantly and positively associated with the proportion of negative affect labels participants gave to the sorted self-aspects. That is, stronger needs for twinship and mirroring were associated with lack of self-differentiation as well as pervasiveness of negative affect in trait categorization.

The findings of Study 6 were conceptually similar to those of Study 5. On the one hand, the findings supported Kohut's general idea that selfobject needs are associated with lack of self-cohesiveness. Specifically, the stronger a person's selfobject needs for mirroring and twinship, the lower the level of self-differentiation and the higher the pervasiveness of negative affect in the trait-sorting task. As in Study 5, this conclusion cannot be generalized to the need for idealization, which was not significantly associated with any sign of lack of self-cohesion. On the other hand, the findings were at odds with the idea that avoidance of selfobject needs would be associated with lack of self-cohesiveness. In fact, no significant link was found between avoidance of selfobject needs and scores on the trait-sorting task. This finding corroborates the tentative conclusion we reached in Study 5 that avoidant defenses actually work to some extent in that they maintain some sense of self-cohesion.

Study 7

The main purpose of Study 7 was to examine Kohut's idea that a person's orientation toward selfobject needs would be associated with affect regulation. To examine this hypothesis, we constructed a classic learned helplessness experiment, in which participants' emotions, cognitions, and functioning were assessed after exposure to either failure or no feedback. Repeated failure feedback has been consistently found to produce negative emotions, cognitive interference (recurrent intrusion of task-related worries and task-irrelevant thoughts), and deficits in task performance (see Mikulincer, 1994, for a review). Adequate affect regulation should prevent the intrusion of negative thoughts and emotions and diminish performance deficits. In contrast, problems in affect regulation should be manifested in exacerbation of these deficits. Our main hypothesis was that hunger for selfobjects and avoidance of selfobject needs would be associated with an exacerbation of learned helplessness deficits, leading to stronger negative emotions, more frequent intrusive thoughts, and larger performance deficits.

Method

Participants. Sixty Israeli undergraduates (50 women and 10 men, ranging in age from 18 to 29, *Mdn* = 22) volunteered to participate in this study. Participants were randomly divided into two experimental conditions, with 30 participants in each.

Instruments and procedure. The study was conducted on an individual basis and was presented as a study of motivation and cognitive performance. The experiment unfolded in three phases: administration of the SONI, manipulation of failure feedback, and assessment of performance, interfering thoughts, and negative emotions. In the Study 7 sample, Cronbach's alphas for the five SONI factors were acceptable (need for mirroring, .80; need for idealization, .81; need for twinship, .87; avoidance of mirroring, .72; avoidance of idealization/twinship, .81).

Following administration of the SONI, failure feedback was manipulated in a concept formation task. Specifically, all participants performed three 10-trial concept formation problems developed by Hiroto and Seligman (1975). In each trial, two different geometrical configurations, each composed of two concentric figures and a line crossing them, appeared on each side of a PC monitor screen. Each of the figures could vary along four two-value dimensions: figure color (green or red), external figure (circle or triangle), internal figure (circle or triangle), and the orientation of the line crossing the figures (horizontal or vertical). Each pair of figures was presented for 5 s, the intertrial interval was 3 s, and the time between adjacent problems was 15 s.

Participants in the *failure* condition were told that for each 10-trial problem the experimenter had selected a particular combination of values of the various dimensions and that the participants' assignment was to discover this combination. For each of the trials, participants were asked to indicate which of the two figures included the selected configuration; after the 10th trial they were asked to indicate what they thought the selected configuration was. After each trial and at the end of each problem, participants received feedback about the correctness of their responses ("correct," "incorrect"). In this condition, the three problems were unsolvable and the experimenter did not select any configuration. For each of the 10-trial problems, the experimenter provided 5 "correct" and 5 "incorrect" feedback messages in a different random order for each participant. At the end of each problem, participants were told, "That is the wrong answer."

In the *no feedback* condition, participants were told that they should select a particular combination of values of the dimensions. For each of the trials, participants were asked to indicate which of the two figures included the selected configuration; after the 10th trial they were asked to tell the experimenter what configuration they had selected.

Following this procedure, performance was assessed on a visual search task with a memory component. All participants were presented with three 32 × 20-letter matrices and instructed to cross out 4 target letters in each matrix. The target letters were presented orally, separately from the letter matrix, and had to be remembered. Participants were allowed 1 min for each matrix, after which the next matrix and the next set of target letters were presented. Statistical analyses were performed on general performance (the total number of letters scanned by a participant) and accuracy (the ratio of the number of target letters marked to the number of target letters presented in the portion of the matrix a participant scanned). These two scores were averaged across the three matrices.

Before ending the experiment, we assessed participants' interfering thoughts and negative emotions. Interfering thoughts in the experimental session were assessed with a Hebrew version of the Cognitive Interference Questionnaire (Sarason, Sarason, Keefe, Hayes, & Shearin, 1986). The Cognitive Interference Questionnaire consists of 21 items,

each of which describes a particular kind of intrusive thought. Participants rated on a 5-point scale, ranging from *never* (1) to *very often* (5), the frequency with which each thought occurred while they were working on the tasks. Of these 21 items, 10 consisted of task-related worries and 11 consisted of task-irrelevant thoughts. In addition, participants made a global rating on a 7-point scale of the extent to which their mind wandered while they worked on the tasks. In the Study 7 sample, Cronbach's alphas were .75 for the 10 task-related worry items and .85 for the 11 task-irrelevant thought items. Negative emotions were assessed with a 5-item self-report scale. Participants rated the extent to which they experienced shame, helplessness, anxiety, frustration, and sadness during the experiment. Ratings were made on a 7-point scale, ranging from *not at all* (1) to *very much* (7). Cronbach's alpha for these 5 items was .80.

Results and Discussion

The data were analyzed in a series of hierarchical regression analyses examining the main effects of the feedback manipulation and the five SONI scales as well as the interactive effects of feedback manipulation and each SONI scale on performance, interfering thoughts, and negative emotions. In these regressions, the dependent variables were general performance, performance accuracy, task-related worries, task-irrelevant thoughts, mind wandering, and negative emotions. In the first step of each regression, feedback manipulation (a dummy variable contrasting the failure with the no-feedback condition) and the five SONI scales were entered as predictors and their unique effects were assessed. In the second step, the interactions (product terms) between feedback manipulation and each of the five SONI scales were entered as additional predictors. Table 4 presents the relevant standardized regression coefficients (betas).

Task performance. The hierarchical regression performed on general performance yielded no significant main effects or interactions. However, the entire regression model for performance accuracy was significant, $F(11, 48) = 3.97$, $p < .01$, and explained 25% of the variance. The main effect for feedback manipulation was significant (see beta in

Table 4
Unique and Interactive Contributions (Standardized Regression Coefficients) of Feedback Manipulation and SONI Scales to Task Performance, Interfering Thoughts, and Negative Emotions (Study 7)

Effect	Total performance	Performance accuracy	TRW	TIT	Mind wandering	Negative emotions
Fail	−.10	−.32**	.36**	.31**	.40**	.36**
Mirroring need	.05	−.24	.44**	.41**	.33*	.30**
Idealization need	.03	−.19	.16	−.03	.24*	.08
Twinship need	.01	−.16	.30**	.34**	.22**	.29**
Mirroring avoidance	−.14	−.01	.11	−.05	.17	−.12
Twinship/idealization avoidance	.01	−.01	.08	.12	−.06	.04
Fail × Mirroring Need	.69	−1.07**	.02	−.26	−.15	.08
Fail × Idealization Need	−.88	.42	.37	−.06	−.37	.27
Fail × Twinship Need	.25	−1.13**	.01	.36	.10	−.09
Fail × Mirroring Avoidance	.07	.10	.18	.43	.25	.07
Fail × Twinship/Idealization Avoidance	.50	.25	−.35	−.58	−.06	−.73

Note. SONI = Selfobject Needs Inventory; TRW = task-relevant worries; TIT = task-irrelevant thoughts; Fail = failure feedback.
* $p < .05$. ** $p < .01$.

Table 4), and no other effects were significant. As can be seen in Table 4, participants in the failure feedback condition were less accurate than participants in the no-feedback condition. It is important to note that this main effect was qualified by significant interactions between feedback manipulation and need for mirroring and between feedback manipulation and need for twinship (see betas in Table 4).

To examine the source of the significant interaction between feedback manipulation and the need for mirroring, we followed Aiken and West's (1991) suggestions and computed two regression lines for performance accuracy as a function of the feedback-manipulation dummy variable at two values of the need for mirroring—one standard deviation above the mean of need for mirroring and one standard deviation below this mean. Findings revealed that the need for mirroring moderated the effects of failure feedback on performance accuracy. Specifically, the slope of performance accuracy regressed on feedback manipulation was significant (different from zero) when the need for mirroring was one standard deviation above the mean, $\beta = .76$, $t(54) = 2.76$, $p < .05$, but not when the need for mirroring was one standard deviation below the mean, $\beta = .03$, $t < 1$. This pattern of interaction indicates that failure feedback led to less accurate performance mainly for persons scoring high on the need for mirroring.

The source of the significant interaction between feedback manipulation and the need for twinship was also analyzed using Aiken and West's (1991) analytic strategy. Findings revealed that the slope of performance accuracy regressed on feedback manipulation was significant (different from zero) when the need for twinship was one standard deviation above the mean, $\beta = .89$, $t(54) = 3.26$, $p < .01$, but not when the need for twinship was one standard deviation below the mean, $\beta = .09$, $t < 1$. That is, failure led to less accurate performance mainly among persons scoring high in the need for twinship.

Interfering thoughts. The entire regression model for task-relevant worries was significant, $F(11, 48) = 3.63$, $p < .01$, and explained 22% of the variance. This regression analysis yielded significant main effects for feedback, need for mirroring, and need for twinship (see Table 4). No other main effects were significant. Participants in the failure condition reported more frequent task-relevant worries during the experimental tasks than participants in the no-feedback condition. Moreover, the higher the needs for mirroring and twinship, the more frequently a participant experienced task-relevant worries during the experimental tasks. None of the interactions were significant (see Table 4).

A similar pattern of findings was found in the analysis of task-irrelevant thoughts. In this case, the regression model was significant, $F(11, 48) = 3.81$, $p < .01$, and explained 24% of the variance. There were significant main effects for feedback manipulation, need for mirroring, and need for twinship (see Table 4). Participants in the failure condition reported more frequent task-irrelevant thoughts than participants in the no-feedback condition. Moreover, the higher the needs for mirroring and twinship, the more frequently a participant reported having experienced task-irrelevant thoughts during the experimental tasks. None of the interactions was significant (see Table 4).

The entire regression model for mind wandering was also significant, $F(11, 48) = 3.65$, $p < .01$, and explained 23% of the variance. This regression analysis yielded significant main effects for feedback manipulation, need for mirroring, need for idealization, and need for twinship (see Table 4). No other main effects were significant. Participants in the failure feedback condition reported more intense mind wandering than participants in the no-feedback condition. Moreover, the higher the needs for mirroring, idealization, and twinship were, the more intense was the reported mind wandering during the experimental tasks. None of the interactions was significant (see Table 4).

Negative emotions. The regression model for negative emotions was significant, $F(11, 48) = 5.21$, $p < .01$, and explained 34% of the variance. This regression yielded significant main effects for feedback, need for mirroring, and need for twinship (see Table 4). No other main effects were significant. Participants in the failure feedback condition reported more intense negative emotions than participants in the no-feedback condition. Moreover, the higher the needs for mirroring and twinship were, the more intense were the reported negative emotions. None of the interactions was significant (see Table 4).

Conclusions. The findings were consistent with Kohut's general idea that deficits in selfobject provisions would be associated with difficulties in affect regulation. The stronger a person's selfobject needs for mirroring and twinship were, the more frequent was the intrusion of task-irrelevant thoughts and task-relevant worries and the higher were the negative emotions he or she experienced during the experimental session. More important, these difficulties in affect regulation seemed to be exacerbated following failure feedback, in which case hunger for selfobject needs was associated with impaired task performance. In fact, the typical performance deficits produced by recurrent failure feedback were observed mainly among individuals who reported a strong hunger for mirroring and twinship.

General Discussion

This series of studies is one of the first systematic attempts to empirically validate basic concepts of Kohut's self psychology. As such, the studies provide important information about the validity of Kohut's concept of selfobject needs and its usefulness for explaining individual differences in personality in adulthood. Specifically, the findings indicate that the concept of selfobject needs for mirroring, idealization, and twinship can be operationalized by a reliable and valid self-report measure, the Selfobject Needs Inventory (SONI). The findings also support Kohut's ideas about the independence of the three selfobject needs; the orthogonality of a person's hunger for selfobject provisions and his or her defensive attempts to avoid acknowledging and satisfying selfobject needs; the motivational bases of narcissism; and the relation between selfobject needs and problems in interpersonal functioning, emotional adjustment, self-cohesion, and affect regulation. The findings also allow us to achieve a useful integration of a clinically based psychoanalytic theory with the kind of empirical studies conducted by clinical and social psychologists. The studies show both that Kohut's clinical insights are relevant to contemporary psychological research and that such research can refine and operationalize clinical insights. Further explorations of this kind might lead to a more comprehensive and both scientifically and clinically fruitful view of personality functioning.

The first task we confronted was to translate Kohut's (1971) definitions of selfobject needs from the somewhat vague and abstract realm of his writings into more concrete and operational terms. Through a multistage process of scale development that included both expert clinicians' judgments and statistical analyses of laypersons' responses, we constructed a 38-item self-report scale that seems to adequately operationalize Kohut's ideas concerning hunger for and avoidance of mirroring, idealization, and twinship. The SONI has good psychometric properties, including high internal consistency, high test–retest reliability over a period of 2 months, and both construct and discriminant validity.

Factor analysis and interfactor correlations indicate that the operationalization of Kohut's concepts worked well, except for the single collapsed factor assessing both avoidance of the need for idealization and avoidance of the need for twinship. Statistical

analyses of the SONI's structure revealed that hunger for and avoidance of particular selfobject provisions are distinct, as are the three kinds of selfobject needs. These results are compatible with Kohut's ideas about the independent lines of development associated with the three kinds of selfobject needs. Moreover, they fit with his broad contention that lack of hunger for selfobject provisions does not necessarily imply avoidance of selfobject needs (Kohut, 1971). These findings are congruent not only with Kohut's theory but also with recent dual-process approaches to human motivation (e.g., Higgins, 1998) that emphasize the orthogonality of approach and avoidance orientations, and with recent attachment research that delineates two orthogonal reactions (anxiety and avoidance) to the frustration of attachment needs (Fraley & Shaver, 2000).

With regard to the SONI's failure to distinguish between avoidance of the need for idealization and avoidance of the need for twinship, we can speculate that people who are motivated by social avoidance do not wish either to idealize other people or to fit in closely and comfortably with them. This lack of differentiation among kinds of avoidance is further supported by the finding in Study 2 that attachment avoidance—a tendency to maintain emotional distance from others—was significantly related to the avoidance of selfobject needs. It is possible that the adoption of a defensively avoidant stance is so pervasive that it generalizes across different kinds of interpersonal experiences and leads people to dismiss social ties in general or to deny dependence on others for need satisfaction. This pervasiveness of avoidance may imply that a person who is psychologically injured in the process of seeking one selfobject provision tends thereafter to avoid seeking satisfaction of other selfobject needs. Alternatively, this pervasiveness may result from the cognitive rigidity that characterizes avoidant individuals (Mikulincer, 1997). This rigidity may interfere with accommodation of one's behavior to variations in interpersonal experiences. In any case, the findings indicate that a person's avoidance of selfobject needs is less differentiated than his or her approach orientation to those needs. Whether revised measures can further discriminate between separately named avoidance orientations remains to be seen.

Beyond operationalizing Kohut's concept of selfobject needs, our findings provide strong support for his basic contention that hunger for or avoidance of selfobject provisions in adulthood is related to problems in self-cohesion, affect regulation, and mental health. Moreover, the results refine this broad idea and allow us to delineate specific patterns of associations between the variables we measured. One pattern of findings was observed for hunger for mirroring and hunger for twinship. Across the various studies, hunger for these two provisions was significantly associated with high levels of anxiety and worries in close relationships, high levels of self-reported anxiety and depression, low levels of psychological well-being and self-esteem, relatively large discrepancies between different facets and domains of the self, low levels of self-differentiation, high pervasiveness of negative affect in the self-structure, frequent cognitive interference and intense negative emotions while performing achievement-related tasks, and stronger performance deficits following failure feedback. Moreover, findings from Study 4 revealed that low self-esteem significantly mediated the contribution of needs for mirroring and twinship to negative affectivity. Overall, these findings imply that hunger for mirroring and hunger for twinship are two forms of psychological insecurity that are associated with a sense of worthlessness, helplessness, and vulnerability and that they can be viewed as risk factors for the development of emotional maladjustment and affective disorders.

An integrative analysis of these findings reveals that the needs for mirroring and twinship overlap a great deal with anxious attachment. First, these two hungers were significantly related to a measure of attachment anxiety. Second, people who scored high

on scales measuring these two selfobject needs had problems similar to those observed among anxiously attached individuals. Persons scoring high on attachment anxiety have been found to report high levels of anxiety, depression, and cognitive interference (see Shaver & Hazan, 1993, and Mikulincer & Florian, 2001, for reviews), suffer from lack of self-esteem (e.g., Bartholomew & Horowitz, 1991), exhibit high levels of self-discrepancies and an undifferentiated self-structure that is pervaded by negative affect (Mikulincer, 1995), and feel helpless in the face of hardship (see Mikulincer & Florian, 2001, for a review). Third, anxiously attached individuals tend to seek excessive reassurance in close relationships (Brennan & Carnelley, 1999), a direct manifestation of the need for mirroring, and to overemphasize their similarity to others (Mikulincer, Orbach, & Iavnieli, 1998), a manifestation of the need for twinship.

At a theoretical level, anxiously attached individuals and those who score high on our measures of selfobject needs seem to share a particular psychodynamic mechanism that determines their habitual strategies of self-regulation. According to attachment theory and research, anxious attachment involves hyperactivation of the attachment behavioral system, a defensive strategy aimed at increasing the availability of security-enhancing attachment figures in times of need (e.g., Cassidy & Kobak, 1988; Mikulincer & Shaver, 2003). Hyperactivating strategies consist of recurrent attempts to minimize distance from significant others and elicit their support and love via clinging and controlling responses, and a hypervigilant, anxious attentional focus on significant others. Although Kohut did not explicitly refer to these strategies, the hunger to satisfy unmet selfobject needs can reasonably be characterized as hyperactivation of strategies aimed at satisfying these needs. Instead of distancing themselves from painful experiences, people with strong and archaic selfobject needs seem to hyperactivate their search for narcissistic provisions and exacerbate their dependence on others. Both anxiously attached individuals and those with hunger for selfobject provisions have difficulty detaching themselves from sources of interpersonal pain and tend to enmesh themselves in potentially distressing interpersonal relationships, hoping to satisfy unmet attachment-related or selfobject needs.

We therefore suggest that lack of attachment security may in part reflect a dearth of mirroring and twinship experiences, and that the anxious search for others' love may be based in part on desires to be admired by others and fit in comfortably with them. According to attachment theory, an infant's sense of attachment insecurity results from caregivers' failure to provide support and comfort in times of need (Bowlby, 1973). However, this sense of attachment insecurity may be compounded by a caregiver's failure to admire the infant's accomplishments and failure to synchronize their responses with the infant's actions, thereby depriving the infant of a sense of connectedness. Although support provision may strengthen an infant's sense of being loved by others and his or her self-appraisal as valuable and special (Bowlby, 1973), a caregiver's lack of admiration for the infant's accomplishments may damage the child's sense of self-worth and result in the construction of what attachment theorists call negative models of self. Moreover, research indicates that caregivers' failure to synchronize their responses with an infant's responses during dyadic interactions is associated with subsequent problems in the infant's emotional and social development (e.g., Stern, 1994; Tronick, 1989). Future developmental research should examine whether deprivation of mirroring and twinship experiences makes a unique contribution to the variance in a young child's attachment insecurity.

This line of reasoning implies that caregivers' sensitivity and responsiveness to infants' signals of distress are not necessarily the same as the provision of mirroring and twinship experiences. In fact, one could identify specific patterns of caregiving in which this sensitivity and responsiveness are accompanied by a failure to admire the infant's

accomplishments or a failure to synchronize one's responses with an infant's responses in nondistress contexts (e.g., play, exploration). Further research should include the construction of observational tools for independently examining caregivers' sensitivity and responsiveness in times of stress and the extent to which they provide mirroring and twinship experience.

Of interest, our findings revealed a slight difference between hunger for mirroring and hunger for twinship. Whereas hunger for mirroring was positively associated with various manifestations of narcissism (self-admiration, arrogance, and entitlement), hunger for twinship was not significantly related to any of these qualities. This finding may further clarify the link between selfobject needs and attachment anxiety, while helping to delineate different subgroups of anxiously attached persons. On the one hand, hunger for twinship may be the basic motivational orientation of a particular subgroup of anxiously attached persons who desire close (perhaps even enmeshed) relationships in order to maximize their sense of connectedness and similarity to others. They may be particularly afraid of rejection and abandonment because such negative interpersonal experiences exacerbate their sense of isolation and loneliness. They may be more preoccupied with maintaining a sense of connectedness and similarity to others than with maintaining an exhibitionistic, grandiose sense of self. On the other hand, hunger for mirroring may be the basic motivational orientation of another subgroup of anxiously attached persons—those who desire enmeshed relationships in order to show off their grandiose self and who are particularly afraid of rejection and abandonment because these negative interpersonal experiences undermine their sense of superiority and entitlement. These people may be more preoccupied with justifying their narcissism than with maintaining a sense of connectedness to others. Researchers should attempt to distinguish among these potentially different kinds of individuals who score high on the anxiety dimension of the two-dimensional attachment space defined by Fraley and Shaver (2000).

Our studies revealed another, somewhat different pattern of findings regarding the avoidance of selfobject needs. Specifically, avoidance of selfobject needs was significantly related to avoidant attachment, various manifestations of narcissistic personality (self-admiration, arrogance, and entitlement), and signs of emotional maladjustment, including anxiety, depression, and feelings of hostility toward others. However, avoidance of selfobject needs was not significantly related to scores on measures of self-esteem, cognitive interference, self-discrepancies, self-differentiation, and problems in affect regulation following failure. Moreover, variations in self-esteem failed to explain the association between avoidance of selfobject needs and emotional maladjustment, implying that an avoidant stance may contribute to anxiety, depression, and hostility without necessarily involving a lack of self-esteem. These findings provide only partial support for Kohut's ideas (1971) about avoidance of selfobject needs as a pathogenic agent. On the one hand, the findings showed that an avoidant stance is related to problems in interpersonal functioning and mental health and to the development of a narcissistic personality. On the other hand, they also suggested that these avoidant defenses were at least partially successful, protecting individuals from the conscious experience of low self-esteem and from cognitive interference and helping to maintain a sense of self-cohesion.

This pattern of findings contributes further to an integration of self psychology and attachment theory, because the avoidance of selfobject needs overlaps a great deal with the construct of avoidant attachment. First, avoidance of selfobject needs was significantly related to both attachment avoidance and one of its defining interpersonal features: fear of intimacy. Second, people who scored high on avoidance of selfobject needs showed similar patterns of responses to those observed among avoidantly attached individuals.

People scoring high on attachment avoidance have been found to inflate their positive self-image, view themselves as better than and superior to others, and report high levels of hostility toward others (Mikulincer, 1998a, 1998b; Mikulincer et al., 1993). Moreover, findings indicate that avoidant individuals do not display any overt signs of low self-esteem or cognitive interference and tend to maintain a highly differentiated self-structure that segregates and excludes painful memories and other negative information about the self (see Shaver & Hazan, 1993, and Mikulincer & Florian, 2001, for reviews). Third, avoidantly attached individuals tend to overemphasize self-reliance and dismiss dependence on others (Bowlby, 1988) in the same way that people who avoid selfobject needs tend to maintain distance from others who could potentially satisfy those needs.

Following this line of reasoning, we suggest that traumatic deprivation of selfobject experiences in infancy may compound attachment insecurity and lead some individuals to avoid selfobject experiences, maintain distance from significant others, and reinforce attachment avoidance. Therefore, the deactivating strategies that characterize attachment avoidance (Cassidy & Kobak, 1988) may include not only the denial of attachment needs and the dismissing of close relationships but also a reluctance to engage in mirroring, idealization, and twinship experiences. That is, avoidance of selfobject needs may be a motivational component of attachment avoidance. In fact, research has shown that such attachment-avoidant people tend to have negative models of others and to underemphasize self–other similarity (e.g., Bartholomew & Horowitz, 1991; Mikulincer et al., 1998). On the basis of the attachment literature, we hypothesize that the affective disorders related to avoidance of selfobject needs will be mainly observable under threatening conditions. Research has shown that attachment avoidance is associated with emotional breakdown but only under highly threatening circumstances (Shaver & Mikulincer, 2002).

Linking Kohut's concepts with attachment theory's two kinds of psychological responses to insecure relations with significant others (Fraley & Shaver, 2000) and two kinds of psychodynamic mechanisms for regulating these interactions—hyperactivation and deactivation (Cassidy & Kobak, 1988)—allows us to refine and elaborate Kohut's theoretical connection between unmet selfobject needs and the development of disorders of the self. In fact, attachment theory, which was based on ethologists' observations and empirically oriented psychological research, fits well with what Kohut (1971, 1977, 1984) learned, as he himself explained, through introspection and empathy. Self psychology and attachment theory have their own unique strengths and hence are complementary rather than redundant. Therefore, a selective, judicious merger of the two theories, both of which were based partly on psychoanalytic theories and clinical experience, may be in order.

With regard to the hunger for idealization, our findings were at odds with Kohut's (1971) ideas. Whereas this selfobject need was positively related to attachment anxiety and rejection sensitivity, it had no significant association with negative emotions, self-esteem, narcissistic personality, self-cohesiveness, or affect regulation. One possibility is that the desire for identification with powerful others in adulthood is not a reflection of disorders of the self and may not lead to problems in personality functioning and emotional adjustment. In fact, social-psychological researchers generally view basking in the reflected glory of high-status others as an adaptive process aimed at maintaining self-esteem (Tesser, 1988). Alternatively, hunger for idealization may be related to specific problems in personality functioning that we failed to tap in our studies. For example, hunger for idealization of powerful others may underlie the pathological processes of deindividuation (Zimbardo, 1970) as well as the development of antisocial personality disorders. Moreover, this hunger for connection with powerful others may lead to severe distress in situations that reveal the weaknesses and vulnerabilities of idealized

figures. Future research should address the possible problems related to the hunger for unmet idealization experiences.

The results of our studies contribute to an understanding of narcissism. We found that the need for recognition and adulation (the need for mirroring) and the avoidance of idealization/twinship are associated with three of the four major NPI factors. This pattern of findings resembles the "narcissistic paradox" (Rhodewalt & Morf, 1995)—wanting to receive praise and applause from others while thinking that those others are stupid and worthless, which should imply that their praise and applause is not all that satisfying. It seems that narcissistic people perceive others as a source of mirroring but also as frustrating blocks to idealization and twinship rather than as separate human beings with their own interests and agendas. Future research should examine narcissism while taking into account the underlying role of hunger for and avoidance of selfobject provisions.

Kohut's (1971) analysis of selfobject needs in adulthood suggested the possibility that present interaction partners and social experiences might compensate for developmental deficits in the past. In fact, this is how he conceptualized the process of psychotherapy. The concept of selfobject needs allows us to view the self from two perspectives: From one vantage point we can focus on past deficits; from the other we can focus on the manner in which a person compensates in the present for these deficits. As long as a person succeeds in compensating to a reasonable degree, earlier developmental deficits in selfobject provisions need not impair the person's functioning. This possibility was actually observed in the control group of Study 7, where individual variations in selfobject needs did not affect task performance. But when people were induced to feel helpless, those with a chronic hunger for mirroring or twinship tended to be more severely hurt psychologically than those with lower levels of selfobject needs.

Before ending this discussion, we want to make clear that the seven studies reported here represent only an initial examination of the construct validity of the SONI. Although the findings are consistent with Kohut's ideas, future research will need to examine the added value or incremental validity of the SONI. Specifically, empirical efforts should be devoted to examining whether the SONI scores predict unique or greater variance of disorders of the self and psychopathology than measures based on other psychoanalytic and nonpsychoanalytic conceptions of the mind. In addition, future studies should assess the developmental aspects of Kohut's theory, while examining the association between SONI scores and early childhood experiences and constructing a more developmentally based measure of the theory. In this context, new scales can be constructed assessing arrests at various phases of infantile narcissism as well as the transformations of the grandiose self into realistic and mature forms of self-esteem, the idealized parent image into mature goal and value structures, and the alterego and twinship into skills and talents that serve to integrate ambitions and ideals.

It is also important to note that the SONI is a self-report scale and so can directly tap only a person's conscious appraisals of selfobject needs. Like all self-report measures, this one may be subject to conscious distortion as well as implicit cognitive and motivational biases. Moreover, Kohut's (1971) theory implied that although selfobject needs may sometimes reach consciousness, they are largely unconscious. A similar situation exists in the study of individual differences in attachment (Shaver & Mikulincer, 2002, 2004), where self-report scales are used despite the fact that aspects of attachment orientations are thought to be unconscious. Nevertheless, in the attachment domain, self-report scales are predictably related to measures of unconscious processes, such as the Rorschach test and the Thematic Apperception Test (Shaver & Mikulincer, 2004). Future research should examine the convergence between the SONI and projective measures of personality, while

providing evidence that these measures are moderately correlated, demonstrating that both kinds of measures actually predict the behaviors with which they are theoretically expected to be associated, and identifying moderating variables that affect scores on one kind of measure but not the other.

We should also remind readers that our sample consisted of healthy young adults who did not suffer from personality disorders. Further research with samples of psychiatric patients should evaluate the relevance of SONI scores for clinical settings. In this context, it would be valuable to examine the extent to which patients' self-reports on the SONI bear on the inferences clinicians make of their patients' unconscious narcissistic needs, and to evaluate the relevance of the SONI to the course of treatment and its outcome. Despite the restricted focus of our study, the findings enrich psychoanalytic research, deepen self psychology's empirical base, fit well with Kohut's (1971) broad hypotheses, and yield a refined and elaborated version of his somewhat elusive ideas about selfobject needs.

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(*Appendix follows*)

Appendix

Selfobject Needs Inventory (English Version)

1. I feel hurt when my achievements are not sufficiently admired.
2. It's important for me to be around other people who are in the same situation as me.
3. When I have a problem, it's difficult to accept advice even from experienced people.
4. Associating with successful people allows me to feel successful as well.
5. I don't need other people's praise.
6. I would just not be involved with people who suffer from problems similar to mine.
7. I'm disappointed when my work is not appreciated.
8. I seek out people who share my values, opinions, and activities.
9. I find it difficult to accept guidance even from people I respect.
10. I identify with famous people.
11. I don't function well in situations where I receive too little attention.
12. I feel good knowing that I'm part of a group of people who share a particular lifestyle.
13. I feel bad about myself after having to be helped by others with more experience.
14. It's important for me to feel that a close friend and I are "in the same boat."
15. When I'm doing something, I don't need acknowledgment from others.
16. It bothers me to be in close relationships with people who are similar to me.
17. I am attracted to successful people.
18. I have no need to boast about my achievements.
19. I feel better about myself when I am in the company of experts.
20. I would rather not be friends with people who are too similar to me.
21. I feel better when I and someone close to me share similar feelings to other people.
22. It's important for me to be part of a group who share similar opinions.
23. I don't really care what others think about me.
24. I know that I'm successful, so I have no need for others' feedback.
25. I'm bored by people who think and feel too much like me.
26. It's important for me to be around people who can serve as my role models.
27. I feel stronger when I have people around who are dealing with similar problems.
28. It's difficult for me to belong to a group of people who are too much like me.
29. In order to feel successful, I need reassurance and approval from others.
30. When I'm worried or distressed, getting advice from experts doesn't help much.
31. I try to be around people I admire.
32. I gain self-confidence from having friends whose beliefs are similar to mine.
33. I need a lot of support from others.
34. I find it difficult to be proud of the groups I belong to.
35. Most of the time I feel like I'm not getting enough recognition from my superiors.
36. It's important for me to belong to high-status, "glamorous" social groups.
37. I don't need support and encouragement from others.
38. I would rather not belong to a group of people whose lifestyle is similar to mine.