
What makes narcissists bloom?

A framework for research on the etiology and development of narcissism

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Abstract

Narcissism is a dynamic form of personality characterized by a pervasive sense of grandiosity and self-importance, and by a need to obtain continuous self-validation from others. Very little is known about its etiology and development. What factors (e.g., temperament, parenting experiences) and processes (e.g., transactions between these factors over time) cause some children to become more narcissistic than others? When does narcissism first emerge, and how does narcissism develop over time? This article describes a framework for research on the etiology and development of narcissism, and recommends ten research priorities. This research should yield fundamental knowledge and should inform intervention efforts to minimize the negative impact narcissistic individuals have on themselves and on others.

Avert your gaze and you will lose your love,
for this that holds your eyes is nothing save
the image of yourself reflected back to you.
Metamorphoses, Ovid

In his *Metamorphoses*, Ovid wrote about a handsome young man named Narcissus who turned down the overtures from a nymph named Echo and subsequently fell in love with his own reflection in the still water. In the poem, Narcissus and Echo tragically pine away because of their unrequited loves. As a curious twist of romantic fate, however, their character types have merged in what we have come to know as the “narcissistic personality.” Narcissistic personality disorder (NPD; American Psychiatric Association, 1994) is characterized by a pervasive sense of grandiosity and self-importance (much like Narcissus) and by a strong need to

be validated and obtain attention or admiration from others (much like Echo). Subclinical narcissism shows similar manifestations (Morf & Rhodewalt, 2001). By “subclinical” we mean levels of narcissism as a dimensional trait, measured in the general population by standardized self-report measures such as the Narcissistic Personality Inventory (Raskin & Terry, 1988) or the Childhood Narcissism Scale (Thomaes, Stegge, Bushman, Olthof, & Denissen, 2008). Narcissists typically exaggerate their talents and accomplishments, feel superior to others, fantasize about personal successes and power over other people, and believe they deserve exceptional treatment. At the same time, they are greatly concerned about how well they are doing, and how favorably they are viewed by others. They tend to value other people only when they can help them achieve their own self-centered goals. An important distinction has been made between so-called “covert” (or vulnerable) and “overt” (or grandiose) narcissists (Cain, Pincus, & Ansell, 2007; Dickinson & Pincus, 2003; Wink, 1991). Covert narcissists are self-absorbed

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introverts prone to experience negative emotions such as shame, which leads them to withdraw from others. Overt narcissists are self-absorbed extraverts prone to deny or block negative experience from conscious awareness by becoming angry, and to express this anger in the form of aggression against others (Bushman et al., 2009).

Ever since NPD was included in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III)*; (American Psychiatric Association, 1980), research on narcissism has proliferated. Clinical psychologists gained important insights into characteristics of NPD and its treatment (Akhtar & Thomson, 1982; Fossati et al., 2005; Higgitt & Fonagy, 1992; Ronningstam, 2005a, 2005b). Meanwhile, social and personality psychologists focused on subclinical narcissistic traits, and gained important insights into how these traits are involved in self-esteem regulation and psychological and interpersonal functioning (e.g., Bushman & Baumeister, 1998; Morf & Rhodewalt, 2001; Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). Despite this longstanding scholarly interest, very little is known about the etiology and development of narcissism at the clinical or subclinical levels. What child and environmental factors contribute to the emergence and maintenance of narcissism? What developmental and psychological processes explain why normal self-development can go awry, leading to narcissism? How does narcissism develop? Theoretical speculations on questions as these abound, but few attempts have been made to actually test these theories.

The two main goals of this article are to provide (a) a framework for empirical research on the etiology and development of narcissism and (b) a top 10 list of research priorities that follow from this framework. Research on the origins of narcissism will inform prevention and intervention efforts, and should ultimately minimize the negative impact narcissistic individuals can have on themselves and on others. We begin by describing narcissism as a dynamic form of personality that resembles a pattern of addiction to holding self-esteem (Baumeister & Vohs, 2001; Morf & Rhodewalt, 2001). Then, we draw on existing literature on normative self-development, temperament, and parenting practices to address the questions of

when and why individual differences in narcissism may emerge. Based on our current understanding of narcissism and its early manifestations, we subsequently discuss promising intervention foci and techniques. Finally, we recommend directions for future research that should elucidate the etiology and development of narcissism.

Narcissism

The most influential model of narcissism to date is the *dynamic self-regulatory processing model* (Morf & Rhodewalt, 2001). According to this model, narcissism is an ongoing personality process (rather than a static condition), organized around the chronic goal of creating, maintaining, and further enhancing grandiose self-views. According to the model, narcissists hold grandiose but simultaneously tentative and unstable self-views that require them to seek continuous external self-validation. On the *interpersonal level*, narcissists tend to interpret interpersonal events in terms of what they mean to their public and private self-image. They mold their social interactions, trying to establish superiority over others, and placing themselves on a pedestal so that they can obtain the attention and admiration they need. When they do not obtain attention or admiration, they can become angry or downright aggressive. On the *intrapersonal level*, narcissists seek to validate their grandiose self-views by taking excessive credit for positive outcomes, by viewing themselves as superior to others, by overestimating their competencies and accomplishments, and by reconstructing past experiences in self-flattering ways. Thus, narcissists are highly inventive in finding ways to build and buttress their grandiose self-views. However, because of their adversarial orientation toward others, narcissists' efforts to maximize self-esteem are often counterproductive and ultimately inhibit the praise they seek. These processes lead to a continuous cycle of seeking self-validation, being criticized or rejected, and insatiably pursuing renewed self-validation. As such, narcissism can be viewed as a continuously operating dynamic system of inter- and intrapersonal processes to regulate self-esteem. Core narcissistic traits such as self-aggrandizing and haughty behavior, a crav-

ing for attention and admiration, a preoccupation with accomplishment and success, and a prickly sensitivity to negative feedback, are the outcomes of those underlying self-esteem regulatory processes (Morf & Rhodewalt, 2001).

Baumeister and Vohs (2001) extended this model by arguing that narcissism can be viewed as a pattern of addiction to self-esteem. Indeed, narcissism is not characterized by a robust, stable pattern of inflated self-regard, but rather by periods of self-view highs that feel very good, interspersed by recurrent periods of self-view lows, or at least relative normality that feel very bad (Rhodewalt, Madrian, & Cheney, 1998). Narcissists want to feel good about themselves, and they are invested in seeking ways to reach that goal. As such, narcissists' strategies to "get their self-esteem fix" seem similar to other addicts' strategies to get their fix. When narcissists fail to create a grandiose view of self, they can become angry and aggressive (much like the alcoholic becomes aggressive to the bar tender who refuses to pour another drink). A final addiction parallel is that the narcissistic pattern of yielding to inner urges may bring short-term benefits (e.g., feelings of pride and euphoria) but long-term costs (e.g., losing interpersonal relationships), and ultimately proves self-destructive (Baumeister & Vohs, 2001).

It is important to ask how narcissists' involvement with building and buttressing self-esteem is different from the ways in which people normally pursue self-esteem. To be sure, the tendency to pursue and be concerned about self-esteem is universal (Crocker & Park, 2004; Leary & Baumeister, 2000; Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). People generally desire to be worthy and valuable, and to be viewed in favorable ways. In this view, narcissists and nonnarcissists differ only in the degree to which they pursue self-esteem (Baumeister & Vohs, 2001). For example, whereas nonnarcissists' drive to enhance self-esteem may be triggered in naturally occurring situations that leave room for it (e.g., when they can accomplish something worthwhile), narcissists continuously seek and create situations in which they can enhance their self-esteem (Morf & Rhodewalt, 2001). Similarly, whereas positive illusions and a tendency to

avoid negative feedback are common among nonnarcissists, such self-regulatory strategies are potentiated among narcissists, who greatly overestimate their competencies and relative standing to others, and who routinely deny or discredit negative feedback or lash out aggressively when receiving negative feedback.

Besides these differences in degree, there may also be categorical differences in the ways narcissists pursue self-esteem. Whereas nonnarcissists are typically invested in establishing social connections (e.g., Leary & Baumeister, 2000), narcissists are typically invested in establishing social dominance to feel good about themselves (Campbell, Rudich, & Sedikides, 2002). Narcissists are rarely interested in creating warm and intimate social bonds. Instead, they want to "stand out from the crowd" and to be admired, and their attempts to establish superiority often come at the expense of others. Their driving social goal is to get ahead, rather than to get along (Baldwin & Baccus, 2004). In this view, narcissism can be seen as an extreme expression of the universal human need for esteem that emerges both more intensely and in different ways than it usually does.

When Does Narcissism Emerge?

Although clinicians are discouraged from diagnosing NPD before adulthood, both clinical and personality psychologists agree that narcissism typically emerges well before adulthood (American Psychiatric Association, 1994; Bardenstein, 2009; Barry, Frick, & Killian, 2003; Thomaes, Bushman, Stegge, & Olthof, 2008). Different ages of onset have been suggested, but empirical evidence is lacking. However, important insights may be gained by considering normative self-development. Specifically, if people are indeed universally motivated to pursue self-esteem, then considering the emergence of self-esteem and "normal self-esteem motivation" may be key to understand the emergence of "excessive self-esteem motivation" characteristic of narcissism.

From about age 2 or 3, children start to show rudimentary signs that they can evaluate attributes of themselves (Harter, 1999, 2006). These evaluations typically focus on observable and salient behaviors or abilities (e.g.,

“I can count”). Later in early and middle childhood, children learn to evaluate an increasing number of self-attributes. However, these evaluations remain qualitatively different from those of older children in that they typically are unrealistic (i.e., young children are unable to distinguish their ideal competencies from their actual competencies) and domain specific (i.e., young children are unable to aggregate self-evaluations across different domains). Young children are also unable to consciously and intentionally reflect on themselves. Thus, they do not yet hold self-esteem as defined by a conscious, global evaluation of one’s worth as a person (Harter, 1999, 2006).

From about age 8, developmental increases in self-reflection and abstract reasoning do allow children to form self-esteem (e.g., “I like myself as a person”). Individual differences in self-esteem now rapidly emerge, with a majority of children thinking relatively positively about themselves and a minority thinking relatively negatively about themselves (Harter, 1999, 2006). In addition, from age 8 up to adolescence, children become increasingly motivated to create and maintain favorable self-views and to avoid unfavorable self-views. This emergent self-esteem motivation is manifest in a number of important ways. First, older children and adolescents become increasingly self-conscious and concerned about how they are viewed by others (Elkind, 1967; Harter, 1999, 2006; Rosenberg, 1986; Vasey, Crnic, & Carter, 1994). Second, they are easily shamed and humiliated, emotions that are intimately related to the maintenance of self-esteem (Nishina & Juvonen, 2005; Reimer, 1996). Third, they increasingly use impression management strategies (e.g., “acting cool”) to try to influence the opinions that others hold of them (Fine, 1981; Harter, 2006).

There are two things that the normative development of self-esteem and the motivations that surround it may tell us about the development of narcissism. First, if narcissism involves at its core an overinvestment in self-esteem, then its first observable manifestations are unlikely to emerge before about age 8 (although the early developmental processes leading to narcissism may well operate before this age). It is difficult to see how children could possibly be

overly invested in self-esteem before they formed a conscious, global evaluation of themselves. In addition, many narcissistic strategies to pursue self-esteem are played out in the social arena and require children to be able to internalize the views that others hold of them, a skill that is not acquired before about age 8 (Harter, 1999, 2006). Second, if narcissism is viewed as an extreme form of universal self-esteem motivation, then its first observable manifestations may often emerge at some point in or just after late childhood, when children become increasingly motivated to hold favorable self-views. Many other narcissistic characteristics also show normative developmental increases beginning in late childhood, including heightened self-consciousness, heightened concern with obtaining interpersonal approval, and a tendency to use impression management techniques to create a favorable self-view. Some even went so far as to label adolescence as a period of “narcissistic vulnerability” (Bleiberg, 1994). To be sure, narcissism likely has its developmental origins in individual traits and experiences that are present from the earliest stages of life (as we will argue later). However, based on what we know about normative self-development, we propose that narcissism (a) does not become manifest before about age 8 and (b) will often become manifest after a derailment of normative self-development at some point in or just after late childhood.

Initial research findings support the notion that narcissism is manifest and measurable beginning at age 8. Personality questionnaires administered to community and clinic samples of older children and adolescents have yielded robust and replicable clusters of traits characteristic of narcissism (Frick et al., 2000). Our own work has found good internal consistency and test–retest reliability estimates for self-reported narcissism in children 8 and older (Thomaes, Stegge, et al., 2008). Narcissism among older children and adolescents also seems to have similar psychological and interpersonal correlates as narcissism among adults. Early narcissistic traits are associated with heightened self-perceived superiority, social evaluative concern, agentic social goals (i.e., social goals reflecting children’s investment in getting respect and establishing dominance over others),

and positively biased perceptions of one's peer acceptance (Thomaes, Stegge, et al., 2008; S. Thomaes, A. Reijntjes, B. Orobio de Castro, & B. J. Bushman, personal communication of unpublished data). In experimental work involving children aged 8–13, we found that narcissism is associated with increased loss of self-esteem following negative peer evaluation (Thomaes et al., in press), and increased negative emotion (i.e., shame and anger) following failure (Thomaes, 2007). Finally, both experimental and field work have shown that narcissism predisposes children 8 and over to behave aggressively, in particular when they suffer a blow to their egos (Barry et al., 2003; Thomaes, Bushman, et al., 2008; Thomaes, Bushman, Orobio de Castro, Cohen, & Denissen, in press). Thus, research shows that it is possible to reliably and meaningfully identify narcissistic traits in older children and adolescents. Future research is needed to validate the claims that narcissism cannot be identified before about age 8, and that narcissism often becomes manifest after a derailment of normative self-developmental processes from late childhood onward.

Why Does Narcissism Emerge?

Thus far we have considered the stages of development when narcissism may first emerge. We now turn to the question of *why* narcissism may emerge in the first place. What psychological, environmental, and developmental factors and processes might explain why some children grow up to be more narcissistic than others? Early theorists and clinicians focused on socializing experiences as causes of narcissism (Kernberg, 1975; Kohut, 1977; Millon, 1981). An exclusive focus on socializing experiences is hard to reconcile, however, with research showing that the level and stability of self-views is partially heritable (Neiss, Sedikides, & Stevenson, 2002, 2006) and that NPD is more heritable than any other personality disorder (Livesly, Jang, Jackson, & Vernon, 1993). Contemporary researchers have argued that narcissism is likely rooted in early-emerging, biologically based temperamental traits and motivational systems (Elliot & Thrash, 2001; Paulhus, 2001; Tracy & Robins, 2003). In

agreement with others (Tracy & Robins, 2003), we propose that temperament functions as a diathesis that can become activated by specific maladaptive socializing experiences to jointly cause the development of narcissism. The following provides an overview of relevant temperamental traits and socializing experiences, and we tentatively outline how these factors may combine to produce the narcissistic personality.

Temperamental factors putatively relevant to narcissism

Temperament can be seen as a collection of inherited, biologically based traits that emerge early in life. These traits involve differences in how individuals typically react to their environment (e.g., actively, fearfully), and how they regulate or control these reactions. From the earliest stages of development, temperament guides and is guided by individuals' experience, thus forming the developmental root of personality (e.g., Rothbart, 2007; Rothbart, Ahadi, & Evans, 2000; Rothbart & Bates, 2006). Most relevant for the present purposes are temperament dispositions related to the motivation of emotion and behavior. In studies involving children and adults, researchers have distinguished between motivational systems responsible for facilitating behavior and generating positive affect, and motivational systems responsible for inhibiting behavior and generating negative affect (Elliot & Thrash, 2002; Kagan & Fox, 2006; Rothbart & Bates, 2006; Thomas & Chess, 1977). Although different labels have been used, these motivational systems can be collectively labeled "*approach* temperament" and "*avoidance* temperament," respectively (e.g., Elliott, 2006; Elliot & Thrash, 2002).

Approach temperament is a general neurobiological sensitivity to positive or desirable stimuli. Individuals high in approach temperament are highly alert to such stimuli, are inclined to behave toward them, and react strongly to their presence or absence (Elliot & Thrash, 2002). Although its manifestations change throughout development, approach temperament can be observed from early development on throughout the life course. The first signs of approach temperament appear by 2 or 3 months, and

consist of behaviors such as smiling, laughing, and vocal and motor activity following positive stimuli. Later in development, approach temperament is manifest in such traits as high-intensity pleasure, high activity, and impulsivity (especially in toddlers and children), and a lack of shyness or uneasiness in social situations (Rothbart et al., 2000). In adolescence, a period marked by a normative increase in a sensitivity to rewarding stimuli, approach temperament can also become evident in risk taking behaviors and a vulnerability to substance abuse and dependence (Chambers, Taylor, Potenza, 2003; Ernst, Pine, & Hardin, 2006; Quevedo, Benning, Gunnar, & Dahl, 2009). Of importance, and consistent with the view that temperament is relatively stable throughout development, signs of approach temperament observed in infancy have been shown to predict approach temperament at least up to age 8 (Pedlow, Sanson, Prior, & Oberklaid, 1993; Rothbart, Ahadi, Hershey, & Fisher, 2001). Another study found that children high in approach temperament at age 3 were impulsive at age 18, and were also dominant and sought leadership roles (Caspi & Silva, 1995).

The cousin of approach temperament—avoidance temperament—has been described as a general neurobiological sensitivity to negative or undesirable stimuli. Individuals high in avoidance temperament are highly alert to such stimuli, are inclined to avoid them, and react strongly to their presence (Elliot & Thrash, 2002). The first signs of avoidance temperament appear by 5 or 6 months, when infants high in avoidance temperament start to avoid or inhibit their approach responses to novel and high-intensity stimuli (Rothbart, 1988; Rothbart & Bates, 2006). Throughout development, avoidance temperament is especially manifest in dispositions to experience negative emotions such as sadness, fear, and anger (Rothbart et al., 2000). Individual differences in avoidance temperament also remain relatively stable over time. Children who show avoidant (or inhibited) behaviors at ages 3 or 4 continue to show avoidant behaviors at age 7 (Pfeifer, Goldsmith, Davidson, & Rickman, 2002), are more likely to be socially anxious at age 13 (Schwartz, Snidman, & Kagan, 1999), and are more likely to describe themselves as cautious and prone to

avoid excitement and danger at age 18 (Caspi & Silva, 1995).

Approach–avoidance dispositions appear to be based on brain networks that underlie the motivation of emotion and behavior. These brain networks have been located in the limbic circuits, such as the amygdala and the hypothalamus (Derryberry & Rothbart, 1997). Approach temperament is thought to be based on a brain network called a “behavioral activation system” (Gray, 1987a, 1987b), or an approach or facilitation system (Depue & Collins, 1999; Fowles, 1980, 1987). The notion is that dopamine secreting neurons that project from the ventral tegmental area to the nucleus accumbens respond to the anticipation of reward (Knutson, Adams, Fong, & Hommer, 2001), and then activate approach responses to the rewarding stimulus. Individual differences in approach responses are thought to stem from differences in the dopaminergic pathways that register the intensity of incentive motivation. By repeated exposure to rewarding stimuli throughout development, dopaminergic facilitation can enhance responsivity to rewarding stimuli (Depue & Collins, 1999), and provide a neural basis for a more sensitive positive feedback system (suggesting that the development of approach temperament may itself be a transactional process).

Avoidance temperament is thought to be based on a brain network called a “behavioral inhibition system” (Gray, 1987a, 1987b), or withdrawal system (Davidson, Jackson, & Kalin, 2000). This system becomes activated by stimuli related to threat or punishment and then inhibits ongoing motor behavior and triggers arousal and negative affect such as fear. Recent findings suggest that serotonin plays an important role in modulating the impact of threat or punishment and in eliciting inhibitory responses (Cools, Roberts & Robbins, 2008). Although relatively little is known about the exact structures and processes involved, there is agreement that the amygdala play a crucial role in processing and responding to threat, via its many projections to other cortical and subcortical brain areas (for reviews, see Kagan & Fox, 2006; LeDoux, 1989).

How do approach and avoidance temperament relate to narcissistic personality? Theoretically, there is good reason to assume that

narcissists are high in approach temperament. First, narcissists show many behavioral characteristics (e.g., aggression, impulsiveness, risk taking tendencies; Bushman & Baumeister, 1998; Thomaes, Bushman, et al., 2008, in press; Vazire & Funder, 2006) and personality characteristics (e.g., extraversion, competitiveness, need to achieve; Paulhus & Williams, 2002; Raskin & Terry, 1988) that are typical for individuals high in approach temperament. Second, similar to people high in approach temperament, narcissists are strongly oriented toward obtaining personally significant goals. Much of narcissists' daily functioning is geared toward the goal of validating their grandiose self-views (Morf & Rhodewalt, 2001). Third, similar to people high in approach temperament, narcissists are sensitive to reward. For example, narcissists are at increased risk to develop alcohol problems (Luhtanen & Crocker, 2005), and are prone to engage in behaviors that provide short-term benefits but long term costs (Vazire & Funder, 2006). More to the point, as noted before, narcissism itself has been described as a pattern of addiction marked by craving for interpersonal approval and the occurrence of withdrawal effects (e.g., emotional distress, aggression) in the absence of interpersonal approval (Baumeister & Vohs, 2001). Research involving adult participants shows that narcissism is indeed associated with heightened self-reported approach temperament and motivation to obtain desirable goals (Foster & Trimm, 2008).

The link between narcissism and avoidance temperament may be less straightforward. At first blush, it seems reasonable to assume that narcissists are invariably low in avoidance temperament, because narcissistic characteristics such as reward sensitivity and competitiveness are inversely associated with avoidance temperament. However, as discussed before, many narcissistic individuals are also prone to experience negative emotion, to ruminate over failures and criticisms, and to occasionally experience episodes of self-loathing and uncertainty. Accordingly, we propose that narcissists may show pronounced individual differences in their level of avoidance temperament, and that these individual differences determine the manifestation of narcissism in its "overt" or "covert" forms (Foster & Trimm,

2008). Overt narcissists may show high levels of approach temperament but low levels of avoidant temperament. Covert narcissists may show high levels of both approach and avoidant temperament.

Thus, narcissism may be influenced by an early emerging sensitivity to positive or desirable stimuli, sometimes accompanied by a similar sensitivity to negative or undesirable stimuli. Of course, we do not want to argue that such temperamental dispositions will automatically or necessarily transform into a narcissistic personality in later stages of development (Tracy & Robins, 2003). Temperamental dispositions typically interact with environmental influences to jointly shape children's personality structure over time. In this view, temperament can be seen as a vulnerability to develop certain personality structures rather than as a factor that pre-determines one's personality structure. In the case of narcissism, this begs the question of what environmental influences may make children high in approach temperament sensitive to rewarding social stimuli, in particular to social stimuli that validate their grandiose self-views.

Socializing experiences putatively relevant to narcissism

Theorists and clinicians have long viewed dysfunctional early interactions with parents as key to the emergence of narcissism. Two main theories have been posited. One theory holds that parental overvaluation and overindulgence instills narcissistic traits in children. In particular, excessive unconditional praise, the tendency to rigidly link children's efforts and achievements to their worth as an individual, and the tendency to tell children they are "special," "deserving," and better than others, have been suspected to cultivate narcissism (e.g., Imbesi, 1999; Kohut, 1977; Millon, 1981; Twenge, 2006). According to this theory, children come to hold grandiose self-views and a sense of entitlement through parental learning or mimicking processes. Children are also believed to become habituated to and dependent on continuous external validation.

The other theory holds that parental coldness, extremely high expectations, and lack of support may lead to narcissism (Kernberg,

1975; Kohut, 1977). According to this theory, children create inflated, narcissistic self-views to protect themselves against feelings of rejection and worthlessness. These children are also believed to crave positive attention from others to compensate for a lack of parental warmth. Thus, according to theorists and clinicians, different socializing experiences may contribute to a similar developmental outcome, namely, children's heightened dependence on external sources to affirm their grandiose self-views. This view is consistent with the concept of *equifinality*, indicating that there often are multiple developmental pathways (rather than a single primary developmental pathway) to a given trait or disorder (Cicchetti & Rogosch, 1996).

Preliminary empirical evidence provides some support for both socialization theories. Retrospective and cross-sectional studies suggest that narcissism is associated with parental overvaluation and overindulgence. For example, adult narcissists report childhood recollections of their parents putting them on a pedestal, believing they had exceptional talents, and often praising and rarely criticizing them (Otway & Vignoles, 2006). They also recall their parents being permissive and failing to set restrictions (Ramsey, Watson, Biderman, & Reeves, 1996). Older adolescent and young adult narcissists report that their parents currently are excessively indulgent, without setting restrictions for them (Horton, Bleau, & Drwecki, 2006). Retrospective and cross-sectional studies also show that narcissism is associated with parental coldness. Adult narcissists report childhood recollections of their parents being cold and indifferent (Otway & Vignoles, 2006), authoritarian (Ramsey et al., 1996) and lacking empathy toward them (Trumpeter, Watson, O'Leary, & Weathington, 2008). Older adolescent and young adult narcissists report that their parents are psychologically controlling and often use strategies such as love withdrawal and guilt induction to exert their influence (Horton et al., 2006).

It should be noted that these studies relied on self-reported parenting experiences. Because narcissists are inclined to distort self-relevant information, it is possible that their self-reports were systematically biased. Future work will

need to overcome these limitations. For now, clinical theory and initial empirical findings yield the following tentative account of why narcissism emerges. From early stages of development, individuals high in approach temperament are biologically wired to be sensitive to rewarding stimuli, which predisposes them to become overly dependent on rewarding stimuli throughout development (i.e., the diathesis). At low levels of environmental stress nothing bad may happen, but at higher levels of environmental stress (e.g., dysfunctional family relationships) these children may develop addictive problems (e.g., Legrand, McGue, & Iacono, 1999). In the particular high-stress context of parents who are either overvaluing and overindulgent or cold and unsupportive, children high in approach temperament may become overly dependent on receiving external validation that allows them to feel special.

Implications for Intervention

Effective intervention will be facilitated by a thorough, empirical-based understanding of the etiology and development of narcissism. Such an understanding will allow clinicians to devise interventions that target the factors critical to the causation and maintenance of narcissism. In addition, given timely identification, it will allow clinicians to start their interventions in those stages of development when narcissistic traits are most sensitive to change. This said, for now and in the near future, clinicians face a choice of trying to intervene with narcissistic features that impair children's functioning (rather than with their causal and maintaining factors) or not to intervene at all. Most choose the first (e.g., Kernberg, Weiner, & Bardenstein, 2000). In particular, interventions are often targeted at narcissistic children's (a) limited awareness of negative self-related feelings and (b) limited skills to manage ego-threatening experiences. In the absence of a thorough understanding of the developmental origins of narcissism, it seems appropriate for clinicians to directly target these narcissistic features.

Various cognitive techniques are available in existing cognitive behavior therapy programs that can be adapted to the specific needs of narcissistic children (Hannesdottir & Ollendick,

2007). Psychoeducation can be used to inform children about self-esteem and its relation with feelings, thoughts, and behaviors. Affect education can be used to help children identify feelings in ego-relevant situations and use them for adequate action. In problem-solving training, narcissistic children may learn alternative ways of coping with ego threats besides lashing out in anger against others. A variety of cognitive reframing techniques can be used to alter the interpretation of ego threats or to shift away from self-esteem goals. However, adaptive self-esteem regulation depends on both regulatory competence and regulatory *motivation*. Purely cognitive techniques may miss the empathic engagement component that may be necessary for narcissistic children to ultimately become less preoccupied with building and buttressing self-esteem. As such, narcissistic children may benefit from the incorporation of a mindfulness training component into their treatment.

Mindfulness involves awareness of what is currently occurring in one's internal environment (e.g., one's feelings, thoughts) and external environment (e.g., one's social interactions) in an open and nonjudgmental way. Rather than changing feelings or thoughts, mindfulness changes the way one deals with these feelings or thoughts. Mindfulness seems a promising technique for use with narcissistic children for two reasons. First, it helps children to disengage from automatically occurring feelings and thoughts that can result in impulsive behaviors by creating an interval of time between relevant stimulus cues and problematic responding (Andersen, Chen, & Miranda, 2002; Brown & Ryan, 2003). Second, it helps children to be aware of the full breadth and intensity of their emotional experience (including their negative self-related emotional experience), and presumably promotes acceptance and reduces self-defensiveness (i.e., the tendency to protect one's self-esteem; Gilbert, 2007; Gilbert & Irons, 2005; Leary, Tate, Adams, Allen, & Hanock, 2007).

It is important that mindfulness should not be confused with interventions that narrowly focus on raising self-esteem by providing unconditional praise and encouragement. The protection from failure that such techniques claim to provide might fuel narcissism and leave chil-

dren vulnerable in the face of failure (Kamins & Dweck, 1999). Instead, mindfulness fosters an accepting, nonjudgmental stance toward one's personal failures and inadequacies. It allows individuals to access painful feelings without being controlled by them (Teasdale, Segal, & Williams, 1995). Narcissistic children seem to lack the capacity for self-acceptance, especially in the face of failure and imperfection. Techniques to improve mindfulness may be a powerful tool to stimulate resilience and provide a healthy alternative to defensive responses to ego threats (Gilbert & Procter, 2006; Leary et al., 2007; Neff, Kirkpatrick, & Rude, 2007; Schimel, Arndt, Pyszczynski, & Greenberg, 2001).

Future Directions

Because research on the early manifestations of narcissism is still in its infancy, we offer a top 10 list for future research directions.

1. Little or nothing is known about how narcissism develops over the life course. Is it true (as we have suggested) that narcissism does not become manifest before age 8, and often emerges in or just after late childhood? Regarding rank-order stability, to what extent are early emerging narcissistic traits predictive of individual differences in narcissism later in life? Are childhood narcissists more or less destined to become narcissists as adults, or does it often happen that children grow out of it and return to a healthier course of self-development? What developmental stages are marked by relative stability and instability in narcissism? Regarding mean-level stability, what developmental stages, if any, show normative increases and decreases in narcissism? Does narcissism indeed reach a normative "developmental high" in adolescence, as some have suggested (e.g., Bleiberg, 1994)? Does narcissism perhaps reach a normative "developmental low" in older people, just as it does in self-esteem (Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002)? Questions such as these need to be addressed using prospective, longitudinal studies that include multiple assessments. Such work

will not only contribute to our fundamental knowledge of narcissism, but it will also provide important insights into the developmental stages most suited to start interventions. One may assume that interventions should be initiated early, before narcissism has been crystallized into a stable personality structure, but research will need to validate this assumption.

2. Prospective longitudinal work is needed to test theory-based predictions about the precursors of narcissism. This work should be guided by the principles of equifinality (i.e., different developmental pathways may lead to similar outcomes) and multifinality (i.e., similar developmental pathways may lead to different outcomes; Cicchetti & Rogosch, 1996). We have argued that high levels of approach temperament may function as a diathesis that interacts with dysfunctional parenting practices (i.e., parental overvaluation and overindulgence, or parental coldness and lack of support) to jointly influence the emergence of narcissism. Individual differences in avoidance temperament may determine the developmental manifestation of narcissism in its overt or covert form. Other possible early influences on the emergence of narcissism that warrant further investigation include insecure/avoidant attachment relationships (Cassidy, 1988; Hughes, Cavell, & Grossman, 1997), and parental conditional regard (Assor, Roth, & Deci, 2004). Parenting practices are best measured using behavioral measures, rather than relying exclusively on self-report measures.
3. Extending research on temperamental influences, future research can use molecular genetic techniques to identify specific combinations of genes that may contribute to the emergence of narcissism. Research on the interplay between genes and environment is especially promising (Rutter, Moffitt, & Caspi, 2006). One approach would be to test potential moderating environmental effects on genetic expression (Gene \times Environment interaction; for a discussion of gene–environment interactions and developmental psychopathology, see Cicchetti, 2007). This would allow researchers to test whether a certain genotype makes children vulnerable to develop narcissistic personalities, but only so in the context of specific environmental stresses (e.g., dysfunctional parenting practices). Another approach would be to test potential mediating environmental effects, such that a certain genotype may predispose children to shape and select their own environmental experiences (e.g., children’s early behavioral dispositions can influence their parents’ behavior toward them) that subsequently cultivate their narcissistic traits (gene–environment correlations; see Rutter et al., 2006). This research should help explain the environmental risk mechanisms involved in the development of narcissism.
4. Research is needed to identify the factors that influence narcissism to persist over time. What keeps persistent narcissists from developing more realistic and autonomous self-views when they grow older, as children developing healthy self-views do? Are the same factors that influence the emergence of narcissism responsible for its persistence over time? Or are there additional factors at stake, such as the use of biased information processing strategies, or interactions with peers who reinforce one’s inflated, narcissistic self-views? What is the role of individual teachers who frequently make public comparisons between their students, perhaps fostering feelings of superiority or inferiority? What is the role of children’s actual competencies in the persistence of narcissism? Are children holding certain special qualities or unique features more likely to continue their narcissistic development than others?
5. Experimental methodologies will allow researchers to address several important questions that cannot be addressed using other methodologies. Narcissism is a dynamic form of personality, and many of its core characteristics are presumed to become apparent in certain types of situations but not in others (Morf & Rhodewalt, 2001). In experimental work, researchers may manipulate events that are assumed to trigger narcissistic self-esteem regulation

- (e.g., ego-threatening vs. nonthreatening events, public performance vs. private performance events) so that they can establish the causal impact of situational context on the manifestations of narcissism. This will provide important insights into the dynamic nature of narcissism. To give one example, in a recent laboratory experiment we found that narcissistic young adolescents are more aggressive than others, but only when their egos are threatened (Thomaes, Bushman, et al., 2008). It would have been difficult to establish the causal impact of situational context on narcissistic aggression using nonexperimental methodologies.
6. Experimental methods are also ideal to examine the psychological processes that explain the early manifestations and persistence of narcissism over time. Researchers need to specify testable hypotheses regarding the emotional and cognitive processes that allow narcissists to uphold their grandiose self-views. Is narcissistic self-esteem regulation indeed fueled by an enhanced motivation to minimize shame experiences and to maximize pride experiences, as some have suggested (Thomaes, 2007; Tracy & Robins, 2004)? What is the exact nature of narcissists' presumed biased information processing strategies? Do they perhaps selectively attend to certain kinds of self-relevant information but not to other information, do they make different attributions for negative and positive events, or do they engage in selective forgetting? Furthermore, what impact do narcissists' self-esteem regulatory strategies have on their peers? Are these strategies (e.g., boasting, manipulating) acknowledged and negatively evaluated by peers? If so, how do narcissists subsequently deal with such negative evaluations?
 7. Our understanding of the (mal)adaptive-ness of narcissism in children is limited. Narcissism is generally considered as problematic, especially if one considers the burden it places on others (e.g., Barry et al., 2003; Thomaes, Bushman, et al., 2008). However, as in other addictions, there may be a certain trade-off between costs and benefits. For example, it is possible that narcissistic children or adolescents sometimes become skilled in gaining acceptance and admiration from others. Research on trade-offs between costs and benefits is needed to further our understanding of the adaptiveness of narcissism. In addition, there are cultural differences in the desirability for children to hold a strong need to excel, to stand out from others, and to prove one's superiority (e.g., between individualistic and collectivistic cultures; Foster, Campbell, & Twenge, 2003). Research will need to examine how these differences translate into the psychological and interpersonal outcomes of narcissism in different cultures, and whether the adaptiveness of narcissism may be culturally dependent.
 8. Research involving adult participants has repeatedly emphasized and validated a distinction between overt (or grandiose) and covert (or vulnerable) narcissism (Bushman et al., 2009; Cain et al., 2007; Dickinson & Pincus, 2003; Wink, 1991). Initial evidence supports the importance of this distinction in early adolescence (Thomaes, Bushman, et al., 2008). Latent class analysis provides an efficient statistical method to assign individuals to meaningful groups based on the similarity of certain predefined traits. If the validity of the overt/covert narcissism distinction is further supported in samples of children and adolescents, researchers will need to examine the differential developmental origins, course, consequences, and effective treatment strategies associated with both forms of narcissism.
 9. We encourage the integration of neuroscientific methodologies into attempts to learn more about the early manifestations of narcissism. Brain imaging data can be important to help psychologists generate or test theories about normal and abnormal psychological processes, and the developmental changes that characterize them (e.g., Cicchetti & Thomas, 2008; Willingham & Dunn, 2003). In the case of narcissism, brain imaging studies may test whether the view of narcissism as an addiction (Baumeister & Vohs, 2001) is useful only as a metaphor, or has actual merit on a neurobiological level. In addition, the brain networks that are sensitive to social

and emotional information appear to be remodeled by the hormonal changes of puberty (e.g., Steinberg, 2007). Does this implicate normative changes in narcissism from early adolescence? Or do individual differences in narcissism show increasing stability from early adolescence? Neuroscientific research probably reaches its full potential when it is conducted in continuous interplay with behavioral research and seeks to test theory-derived hypotheses (Kosslyn, 1999).

10. Developmental research should shed new light on the debate in the clinical literature on whether NPD should be viewed as a pathological category or as the extreme end of a normal personality dimension (Fossati et al., 2005; Foster & Campbell, 2007). For example, to what extent are the precursors of NPD similar to those of subclinical manifestations of narcissism? Can different developmental pathways be distinguished for NPD and subclinical narcissism? Outside of the clinical literature, the underlying structure of narcissism is much less debated. Research involving adult participants clearly shows that narcissism, as measured in the general population, is a dimensional trait (Foster & Campbell, 2007). Does research involving child participants support a similar conclusion?

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Future research involving general population samples of children of different ages is needed to test this assumption.

In summary, we advocate an interdisciplinary, multiple method, and multiple levels of analysis approach to examine the etiology and development of narcissism, an approach that recognizes that narcissism results from joint psychological, social, environmental, genetic, and neurobiological influences over the life course (Cicchetti & Toth, 2009).

Conclusion

Ovid eloquently wrote about Narcissus' and Echo's unrequited and ultimately fatal loves. Ovid was silent, however, with regard to their character development. What kind of person was Narcissus in his younger years? What circumstances had influenced Narcissus to become the vain and self-obsessed person he was? Similarly, why did Echo grow up to be so overly dependent on being validated by others? We will never know. Or do we? Psychologists may not have the tools to rewrite classical epic poems, they do have the tools to map and understand personality development. We hope that this article will encourage researchers to start studying the etiology and development of narcissism.

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