

The Pleasures of Revenge

Richard T. McClelland

Gonzaga University

Revenge is universal in human cultures, and is essentially personal and retributive. Its moral status is contested, as is its rationality. Revenge is traditionally associated with pleasure, but this association is not accounted for in contemporary philosophical treatments of revenge. Here I supply a theory of normal narcissistic functioning that can explain this association. Normal narcissism is an adaptive form of inter-psychoic processing which has to do with the regulation of a coherent set of meta-representations of the agent. It can be given a general account by integrating views drawn from clinical traditions, empirical psychology, and contemporary cognitive neuroscience. I explore the neural correlates of normal narcissism, its characteristic accompanying emotions and pleasures/displeasures, and its fundamental dynamics. It is proposed that this allostatic regulatory system plays a prominent role in retributive behavior, including revenge. Revenge is understood as a form of narcissistic repair, and a variety of puzzles concerning revenge (e.g., delay, urgency, pleasure) are solved from this point of view.

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Late in his great novel *Moby Dick*, Herman Melville has his hero Ishmael comment on Captain Ahab's intentions. His comment focuses on the vast difference between what Ahab's financial partners were expecting from his final voyage and what Ahab himself expected. His comments are worth quoting at length because they perspicuously introduce a number of fundamental features (and puzzles) about the nature of revenge:

They were bent on profitable cruises, the profit to be counted down in dollars from the mint. He was intent on an audacious, immitigable, and supernatural revenge. Here, then, was this grey-headed, ungodly old man, chasing with curses a Job's whale round the world, at the head of a crew, too, made up of mongrel renegades, and castaways, and cannibals . . . Such a crew, so officered, seemed specially picked and packed by some infernal

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fatality to help him to his monomaniac revenge. How it was that they so aboundingly responded to the old man's ire — by what evil magic their souls were possessed, that at times his hate seemed almost theirs; the White Whale as much their insufferable foe as his; how all this came to be — what the White Whale was to them, or how to their unconscious understandings, also, in some dim, unsuspected way, he might have seemed the gliding great demon of the seas of life, — all this to explain, would be to dive deeper than Ishmael can go. The subterranean miner that works in us all, how can one tell whither leads his shaft by the ever shifting, muffled sound of his pick? (1851/2001, pp. 162–163)

Ishmael here recognizes several features of revenge: it is personal, it is retributive, it can be fueled by rage and this rage can be very intense, it is morally dubious, it can be irrational, and it arises from very deep psychological currents in the avenging agent. One of the main aims of this paper is to identify Ishmael's "subterranean miner," and to locate the "shaft" wherein he works in us all. In order to do this, we will need to account for an element of revenge that is proverbial but that has been little commented on by philosophers: its pleasures. I approach this issue by way of the other elements in Ishmael's commentary on Ahab's revenge, and treatments of those elements in recent philosophical literature.

Revenge in Philosophical Perspective

Revenge Is Personal and Retributive

Robert Nozick argues that revenge is always personal in the sense that it is "inflicted by (the agent of) someone with a personal tie," where the notion of a personal tie is parsed as "this is because of what you did to my ____" (e.g., self, father, brother, spouse) [2004, p. 367]. Similar emphases on the personal nature of revenge can be found elsewhere (Bar-Elli and Heyd, 1986, pp. 72–73; Frijda, 1994, pp. 263–265; Lang, 1999, pp. 149, 153). In their investigations of revenge in the corporate world, Tripp and Bies identify revenge as "what individuals do with the desire to get even for a perceived harm" (1997, p. 146). If we extend this to include groups, then we should also include feuds within the ambit of revenge (*pace* Fletcher, 2003, pp. 8–9). Revenge can also be pursued on behalf of a third party, as occurs commonly in institutions (including work-places), extending the notion of "personal" to action by proxies (for work-place revenge, see especially Bies and Tripp, 1996; Kim and Smith, 1993; Seabright and Schminke, 2002). What all of these observations have in common is an emphasis on the close emotional ties between the vengeful agent and those on whose behalf revenge is pursued or taken. I allow that such close emotional ties may follow lines of broader kinship association, as well as non-kinship based alliances or coalitions (which, after all, in some cases may be more emotionally intense than kinship relationships).

It is generally agreed that revenge is fundamentally *retributive* in character. Nozick (2004, pp. 366–370) attempts to distinguish revenge from retribution generally, but his argument is unconvincing (see the discussions in Barton, 1999, pp. 52–69; Frijda, 1994, pp. 270–275; and Uniacke, 2000, pp. 62–64). Empirical evidence suggests very strongly that, despite explicit avowals to the contrary, most people have retribution as their primary motivation for punishment of offenders (Carlsmith, 2006; Carlsmith and Darley, 2008; Carlsmith, Darley, and Robinson, 2002). Combining the retributive quality of revenge with its personal character (in the extended sense given above), we arrive at the definition offered by Barton: “*Revenge is personal retributive punishment*” (1999, p. 80, which compares well with the definition given by Elster, 1992, p. 155 and 1993, p. 187). Revenge, then, is a species of retributive action, whether it is carried out by the person offended against or on behalf of others, the latter a practice that appears in human ontogeny as early as the second year of life (Fonagy, Moran, and Target, 1993). The basic dynamic of retribution, furthermore, is reversal: to restore the imbalance created by the original offense by imposing punishment commensurate with it (Morris, 1968, 1981, 1999). What also gets reversed in successful revenge is the inefficacy of the agent demonstrated by the original offense. The retributive character of revenge, of course, already suggests that revenge might be a form of justice, and that raises the thorny issue of the moral status of revenge.

The Moral Status of Revenge Is Contested

From antiquity onwards, the moral status of revenge has been controversial. The modern debate thus echoes much older ones. Bar-Elli and Heyd have argued that revenge is inherently immoral primarily on grounds of its social consequences, thereby expressing a very commonly held view: “. . . it is in the final analysis a futile, destructive, and frustrating course of action, having harmful side effects, and reflecting a socially undesirable trait of character” (1986, p. 69; cf. Govier, 2002, p. 13 for a similar view). By contrast, Tripp and Bies (1997, p. 146) and Frijda (1994, pp. 270–281) find revenge often to be constructive and pro-social. Other writers have emphasized the connection of revenge to immoral desires, and some more specifically to an immoral pleasure, i.e., taking pleasure in someone else’s suffering (e.g., Govier, 2002; Uniacke, 2000). Taking pleasure in the suffering or down-fall of others is *Schadenfreude*, and there can be little doubt that revenge often entrains this social emotion. However, *Schadenfreude* has a much wider range of application, attaching to events that are not themselves acts of revenge. It is also deeply bound up with another negative social emotion, namely envy, as recent empirical psychological and neurobiological investigations have shown (see Shamay-Tsoory, Fischer, Dvash, Harari, Perach-Bloom, and Kevkovitz, 2009; Shamay-Tsoory, Tibi-Elhanany, and

Aharon–Peretz, 2007; Takahashi, Kato, Matsuura, Mobbs, Suhara, and Okubo, 2009). There is thus no necessary relationship between revenge and *Schadenfreude* or envy. The occurrence of these negative social emotions among the *sequelae* of successful revenge does nothing, then, to signify the moral value of revenge as such.

Yet others have emphasized a connection between revenge and either resentment, hatred, or anger, all of which in turn are seen as immoral. This line of argument is well-represented in various contemporary writers and older philosophers from the seventeenth through the nineteenth centuries (Barton, 1999, p. 13; Moore, 1987, pp. 191–196; Murphy, 1999; Reid, 1969; Uniacke, 2000, p. 67). It also has representatives in ancient Semitic literature, as Peels (1995, pp. 79–86, 234–244, 274–297) has shown. However, the tie to anger is not strictly speaking necessary, though clearly many instances of revenge will derive at least part of their motivation from anger (see Nussbaum, 2001, p. 396). Barton continues his definition of revenge given above by noting these emotional connections: “Revenge is *personal retributive punishment*, typically accompanied and fueled by feelings of indignation, anger, and resentment for wrongs suffered” (1999, p. 86). The connection to anger (including rage-states) is common, and even fundamental, but is not enough to make revenge immoral, for anger (including rage) can itself be morally justified. Indeed, there are plenty of circumstances in which the failure to get angry is itself a moral failing, and occurrences of unrequited injustice are among them.

The opposing contemporary philosophical view takes revenge to be something which is sometimes morally justifiable. Indeed, even much older writers have argued that revenge can be a form of justice. Thomas Aquinas, for example, considers whether vengeance (*de vindication*) is ever morally permissible, and argues that “it can be lawful (*licita*) so long as all proper conditions are safeguarded — if the intention of the avenger is aimed chiefly at a good to be achieved by punishing a wrongdoer; thus, for example, at the correction of the wrongdoer, or at least at restraining him and relieving others; at safeguarding the right and doing honor to God” (ST 2a 2ae, Qu. 108, article 1, reply). Where revenge is a form of self-defense, he goes on to argue, it may be regarded as a “specific virtue (*specialis virtus*) and a form of justice; the avenger may thus become the instrument of God” (ST 2a 2ae, Qu. 108, reply to article 2). A number of contemporary writers have similarly argued that revenge can be a form of justice, and thus is sometimes morally justifiable. (The most careful and extended treatment of this issue is in Barton, 1999; and similar views can be found in Hershenov, 1999; Jacoby, 1983; Oldenquist, 1988; Wallace, 1995).

It is generally agreed that revenge is a universal human practice, one deeply rooted in our emotional and ethical lives. Revenge is often governed by social conventions or norms. The classic treatment of such norms was given by Elster: “Social norms are non-consequentialist obligations and interdictions,

from which permissions can be derived" (1992, p. 157; and cf. Waldmann, 2001). It is very difficult to see how the existence of social norms governing revenge does not itself express an enduring and widespread agreement that revenge is sometimes morally justified. Moreover, it is not difficult to see something of the general circumstances in which revenge is most likely to be a form of justice. Revenge appears especially to be justified in settings where there is no central judicial authority or government (whether temporary or long-term) to insure that *de jure* justice will be done. Bacon put this point long ago: "The most tolerable sort of revenge is for those wrongs which there is no law to remedy" (1625/1999, p. 348). And it was Bacon who coined the phrase "wild justice" for some acts of revenge. A study of acts of revenge taken in the wake of the Holocaust notes the importance to them of the temporary collapse and delayed reappearance of central legal authorities (Lang, 1999; cf. Lang, 1994). The absence of strong central governments will also be one reason why revenge and codes of revenge operate in traditional tribal cultures, as contemporary anthropological investigations make clear (Chagnon, 1988; Roscoe, 2003; Young, 2006). Barmash (2005, pp. 20–70) has argued a similar claim for ancient Semitic parallels. It is very difficult to resist the claims that such actions are morally justified, and thus that not all acts of revenge are morally wrong. Seen in this light, revenge can also be understood to be rational, our next issue.

The Rationality of Revenge Is Contested

It is often held that revenge is an *irrational* behavior. Here is one recent statement of this position:

Taking revenge after having incurred harm is irrational. By brooding and impatiently waiting for our chance, we deprive ourselves of more rewarding and productive activities and the accompanying pleasant state of mind. By actually taking revenge, we run the risk of retaliation and subsequent escalation into a prolonged feud. (Crombag, Rassin, and Horselenberg, 2003, p. 333)

Others take the view that revenge can be rational, depending on its social utility, as, e.g., through its deterrent effects (see Tripp and Bies, 1997, p. 157; and Frijda, 1994, pp. 282–283). Efforts to tie such arguments to rational choice theory run into the serious objections raised by Elster (1992, pp. 170–174; and 1993, pp. 187–189) and Dupré (2001, pp. 117–153). Nonetheless, the ubiquity of revenge, and its norm-governed quality, suggests very strongly that it is rational in some sense of that term. The sense that seems to be most defensible is a relatively weak notion of "fit" or "appropriateness," especially where the wider context within which such "fit" is judged is the social norms governing revenge behavior. On this view, revenge will be rational in so far as it "fits" the appropriate social norms. Threats of revenge and actual revenge derive part of their appropriateness

from the closely related appropriateness of the emotions that underlie them. That emotions are to be judged rational in terms of appropriateness has become a regular motif in contemporary philosophical literature on the emotions (Arpaly, 2000; Ben-Ze'ev, 2000, pp. 161–167; de Sousa, 1987, pp. 184–186; Elster, 1999, pp. 283–331; Greenspan, 2000; Helm, 1996; Roberts, 2003, p. 333). One need not subscribe to the view that there is an identifiable emotion called “vengeance” to think that the *ratio* governing rational acts of revenge is isomorphic with the *ratio* governing emotional fit, and that each implicates the other. Of course, showing that revenge is rational, under howsoever weak a concept of rationality, is distinct from showing it to be morally right (D’Arms and Jacobson, 2000). But what all this conduces to is the overarching notion that revenge is at least intelligible in various social settings, and is also to be expected.

Elster has argued convincingly that revenge is expectable especially in cultures where concepts of honor play important roles in codes of personal conduct. Honor, as he points out, has deep connections with self-esteem:

I believe the phenomenon of honor to be the key to understanding revenge. Asserting one’s honor, like enjoying other people’s envy of one’s assets, is an aspect of a deep-rooted urge to show oneself to be superior to others The urge for honor, like the enjoyment of other people’s envy, are universal phenomena. They can be controlled but not fully suppressed. They arise in the mind spontaneously but need not have any further effect if we can recognize them and avoid acting on them. Needless to say, they can also have a massively important impact on behavior. Feuding societies embody the quest for honor in a particularly striking form. In these societies, the urge to prove oneself superior to others fuses with the spontaneous urge to seek revenge, to produce norms of revenge. (1992, pp. 176–177)

The same deep connection between honor and revenge is drawn by a wide range of other investigators, with evidence drawn from a variety of cultures (Boehm, 1984; Fischer, 1991; Ginat, 1997; Mosquera, Manstead, and Fischer, 2002; Nisbett and Cohen, 1996; Otterbein, 2000; Sommers, 2009; Stewart, 1994). One of the main aims of this essay is to deepen this connection between honor and self-esteem. This connection precisely implicates a major regulatory system that has wide implications for our understanding of human action. That system will be discussed in the next section under the rubric of “normal narcissism.” Only a look at such deep psychological mechanisms will help us more fully to understand the nature of revenge, its intelligibility, ineluctability and ubiquity in human affairs, and will also illuminate the deep connection between the psychology of the revenging agent and social norms of revenge. It is by way of normal narcissistic functioning that these norms get a grip, as it were, on the agent. But, before continuing to seek Ishmael’s “subterranean miner,” I should take a preliminary look at one further issue: the role of pleasure in revenge, for this too will be considered further in my treatment of normal narcissism.

Revenge and Pleasure

Mention of pleasure is conspicuously absent from the opening excerpt from Melville. However, it is proverbial that revenge is sweet. In the *Illiad*, Homer speaks of an anger (*cholos*) often associated with revenge and “that far sweeter than trickling honey wells up like smoke in the breast of men” (Book XVIII, lines 108–110). The seventeenth century Anglican clergyman and noted preacher Thomas Adams records one of the earliest versions of a well-known theme: “When the Italians [i.e., Sicilians?] hear how God hath reserved vengeance to himself, they say blasphemously ‘He knew it was too sweet a bite for man, therefore kept it for his own tooth’” (Adams, 1862, p. 325). Adams’s near contemporary George Herbert is credited with an early appeal to the notion that “Living well is the best revenge” (1640/1964, p. 339). So well-understood is the proverbial association of pleasure with revenge that it is the subject of a funny cartoon in a 1978 issue of the *New Yorker* magazine. The drawing features two witches, one of whom is stirring the boiling cauldron, the other tasting the brew. The taster observes wryly “Too sweet. Use less revenge” (Fraschino, 1978, p. 36).

The Homeric theme reappears in Aristotle, who famously associates revenge with pleasure, though in an unusual way. In *Rhetoric II*, chapter 2 he treats of anger and draws it close to revenge:

Anger may be defined as an impulse, accompanied by pain, to a *perceived* revenge for a *perceived* slight directed without justification towards what concerns oneself or towards what concerns one’s friends . . . It must always be attended by a certain pleasure — that which arises from the expectation of revenge. For since nobody aims at what he thinks he cannot attain, the angry man is aiming at what he can attain, and the belief that you will attain your aim is pleasant. (1378a 31–b10 [using McKeon’s translation, but altering his “conspicuous” for *phainomenos* to “perceived,” following Konstan, 2004, p. 102, n. 7])

Here the pleasure arises from the expectation of a successful revenge and with it a demonstration of mastery or competence. Earlier in the *Rhetoric*, Aristotle argued that pleasures are either directed at what is presently perceived or at what is remembered from the past, “or in expecting things that will happen” (Book I.11, 1370a 27–34). In *Nicomachean Ethics* III.8, in his discussion of pseudo-courage, Aristotle repeats some of these formulations: “When human beings are angry, they feel pain, and when they avenge themselves, they feel pleasure” (1117a 5–7). And in *Ethics* IV.5 he holds that revenge, once enacted, brings anger to an end (1126a 21–22; a dubious claim). Nowhere does Aristotle regard any of these dynamics as anything other than normal and healthy. But neither is Aristotle equipped to explore more deeply the psychological dynamics between revenge, anger, pleasure, and mastery. There are, of course, many ways to anticipate pleasure, and fantasies are among them.

Many acts of revenge are preceded by or accompanied by fantasies of the anticipated revenge. Indeed, in many cases, the fantasies will suffice, and can satisfactorily substitute for an actual vengeful act. A recent study of revenge fantasies in corporate life gives one that has a particular connection to the notion that revenge is often (and perhaps always) “sweet.” This particular instance of a revenge fantasy succeeds in showing (and not merely telling) the sweetness of revenge. Here it is in full:

The frail old man's eyes bulged and his face contorted wildly as he struggled to free his bound arms and legs. Duct tape covered his mouth. I slowly turned towards him and paused thoughtfully. My body trembled in anticipation as I lifted the 50-pound vat over his writhing body. The golden liquid languorously oozed downward. The rich smell of nectar filled the room. Next came the jar. I place it in front of his face and carefully unscrewed the lid. I had worked for weeks gathering my little helpers. His frail, honey-covered body stiffened and his eyes widened in horror, then glazed over in shock. “You never should have provoked me,” I said with a rueful smile as I headed for the door. “Never.” (Bies and Tripp, 1996, p. 256)

One can almost taste the anticipatory pleasure suffusing this revenge fantasy (it is also a fantasy of anticipated mastery and anticipates reversal of an earlier defeat). It should be compared to the description of revenge given by Milovan Djilas: “Vengeance is not hatred, but the wildest, sweetest kind of drunkenness, both for those who must wreak vengeance and for those who wish to be avenged” (1958, p. 107). Elster (1992, p. 164) takes Djilas to be a contemporary representative of the cultural norms governing revenge in the Balkans, societies in which concepts of honor play a large role in defining the parameters of vengeful action, even today. But the role of imagination and fantasy in the psychology of revenge, I will argue later, is universal. Here it is closely tied with anticipatory pleasure.

Charles Barton treats of the pleasure accompanying revenge more fully than most other contemporary investigators. He takes issue with Nozick about just what it is that avengers find pleasant: it is not pleasure in the sufferings of others, *simpliciter*, as Nozick holds (a view often held by those who condemn revenge as immoral). Rather, it is pleasure as satisfaction in a job well done, in a duty discharged, or where self-respect is restored by the vengeful action (compare Luchies, Finkel, McNulty, and Kumashiro, 2010 on the conditions in which forgiveness undermines self-respect). Barton also, correctly emphasizes the elements of publicness and of reversal that are involved in successful revenge and are tied to its pleasures (1999, pp. 14–19). Both Aristotle and Barton are correct: revenge is often, and perhaps characteristically pleasant, and the pleasures of revenge have deep psychological roots connected with self-esteem — esteem that is often mediated socially through concepts of honor. It will be my task in the next section of this paper to sharpen the understanding of these connections, and to supply a conceptual framework for understanding the psychology of revenge, including its pleasures. For this purpose I introduce a theory of normal narcissistic functioning.

Normal Narcissistic Functioning

I emphasize that the functioning in view here is entirely normal and that the term “normal narcissism” should not be construed as a form of psycho-pathology, despite the fact that some psychologists do use it this way (e.g., Sedikides, Gregg, Rudick, Kumashiro, and Rusbult, 2004). I refer, then, to a coherent set of parameters of normal psychological functioning that is found in all psychologically and neurologically intact adult members of our species.¹ A further purpose for my theory is to draw closer together the traditions of clinical psychoanalysis, empirical psychology, and contemporary cognitive science and brain studies. This is with a view, in part, to improving the scientific character of the psychoanalytic tradition. Good scientific theories may be characterized by four broad requirements: (a) they unify relevant bodies of information otherwise seen as disparate; (b) they are data-driven; (c) they are useful in terms of making predictions that can be tested empirically and producing practical applications; and (d) they can be quantified (Eliasmith and Anderson, 2003, p. 24). The varied traditions that make up psychoanalysis today can fairly be criticized especially with regard to the second and fourth of these *desiderata*. Recent work by psychoanalytically oriented investigators on the neurobiology of affective regulation have generated a framework for understanding the ontogeny of the “self” that is both biologically and psycho-dynamically realistic (see especially Schore, 1994, 2003a, 2003b). Work in neural engineering and neural modeling promises to furnish effective quantitative representations of self-referential processing and related narcissistic activities (Eliasmith and Anderson, 2003; Thagard, 2009; Thagard and Litt, 2008). Such an integrated approach can generate a satisfyingly powerful conception of the “self” that avoids the vacuity of the Humean tradition and the quite different pitfalls of Cartesian dualism.

If Descartes (1642/1954) is right that the self (our term for what he knew as the “soul”) is an immaterial entity capable of subsisting independently from any physical body, then there is no science of the self, and thus no science of normal narcissism. For on that view, the self is inherently and necessarily beyond the reach of empirical science. Similarly, if Hume (1789/1973) is right that there is no self, but only a stream of momentary conscious experiences, then there is once again no science of the self, for there would be no such subject to investigate, by any method whatsoever. What the confluence of modern clinical, empirical, and neurobiological investigations of the self promises, then, is a genuinely scientific and comprehensive psychology, and a secure scientific basis for a fully naturalistic philosophy of mind. Because our understanding of the operations of the human (and primate) mind is both a scientific and a

¹What follows is a summary of McClelland (2010), some of it verbatim and used by permission. There is also substantial overlap with McClelland (2009). I first explored these issues in McClelland (2004).

philosophical enterprise, it is appropriate for a philosopher to suggest ways in which scientific findings can be given an “integrative interpretation” of the results of scientific investigations and of empirical psychology (Brook, 2009). The view of normal narcissism offered here is intended to constitute a case of such integrative interpretation. Central to it is a view of the “self” that is deeply tied to the nature of representations and their neural basis.

A Representational View of the Self

Almost all views of ordinary narcissistic phenomena imply the truth of what has been called “our compelling intuition that the self is a distinct and unitary entity” (Gillihan and Farah, 2005a, p. 94), while also eschewing Cartesian dualism (for a critique of which see Hasker, 1999, pp. 147–157). This intuition appears in recent neuro-scientific literature in terms of “self-referential processing,” or the like. Such processing appears to occur over a wide range of exteroceptive and interoceptive domains and to be supported by distinctive regions of the brain (David et al., 2006; Johnson et al., 2002; Vogeley et al., 2004). The evidence for laterality of self-referential functions (and first-person point of view), as opposed to third-person referential functions (and third-person point of view) is mixed, and hemispheric dominance may well depend on the specific context of the tasks in question (Devinsky, 2000; Platek, Keenan, Gallup, and Mohamed, 2004; Vogeley and Fink, 2003). Moreover, since self- and other-perspectives are often closely related, it is not surprising that this should be so. It is notable, however, that Guise et al. (2007) found that transcranial magnetic stimulation of the right hemisphere disrupted self-referential tasks and not other-referential tasks. It is also significant that the vast majority (97%) of a sample of patients with delusional misidentification syndrome suffer from frontal lobe damage in the right hemisphere (Feinberg, DeLuca, Giacino, Roane, and Solms, 2005). Right hemispheric dominance or specialization for self-referential processing is also consistent with the early maturation of that hemisphere, and its importance in early ontogeny for affective regulation (Schore, 1994) and early attachment relationships (Schore, 2009).

Gillihan and Farah (2005a, 2005b) gave an incisive and far-reaching critique of many attempts to establish empirically the neurobiological substratum for the self. A variety of investigators have taken their criticisms (especially regarding the presence of confounding uncontrolled variables) to heart and have improved significantly the rigor of their findings. These tend to converge on a set of “cortical midline structures” as the most likely candidates for a neural basis for self and self-experiencing, these structures including notably various regions of the frontal cortex, the cingulate cortex, retrosplenial cortex, parietal lobes and the hippocampus, together with other neural connections to the limbic system and basal ganglia (Northoff et al., 2006, 2009; Northoff and Panksepp,

2008; Panksepp and Northoff, 2009). On this view, the cortical midline structures form an anatomical and functional unit, and also require that self-referential activity be, from its inception, irreducibly affective. This last result is especially relevant to normal narcissistic functioning, which is also irreducibly affective in character.

On this view, the core-self is essentially affective, is grounded in our capacity to integrate interoceptive information from sub-cortical systems and belongs to a set of neural structures that can be found homologously in other animals. This upholds one of Gillihan and Farah's major findings: having a self or engaging in self-referential processing is not unique to our species. Several non-human species give evidence of self-phenomena (see Marino, 2002; Plotnik, De Waal, and Reiss, 2006; Prior, Schwarz, and Güntürkün, 2008; Reiss and Marino, 2001). The cortical midline structures hypothesis is supported by results from other investigators using other methods (D'Argembeau et al., 2005; Moran, Macrae, Heatherton, Wyland, and Kelley, 2006; Ochsner et al., 2005; Uddin, Iacoboni, Lange, and Keenan, 2007). It is also supported by studies of autistic persons, in whom dysfunctions of self-representation and of cortical midline structures can be found (Uddin et al., 2008). Gillihan and Farah also argue that agency is a central notion involved with self-representation, and that our sense that our actions are actually initiated by us and actually belong to us, as well as our sense of having our own body, is "special" in one of the senses they recognize for that term. This is compatible with Northoff and Panksepp's cortical midline structures hypothesis. And, as I will show, agency is also central to normal narcissistic functioning.

In sum, I think we have good reasons to think that neurologically intact humans do indeed possess a "self," and that this self is essentially representational and embodied. The notion of representation, in turn, can be cashed out in terms of "codes" (for what follows see Eliasmith, 2005, 2007; Eliasmith and Anderson, 2003; Thagard and Litt, 2008). Codes can be understood in terms of relationships between two "alphabets." Consider, for example, Morse code, which establishes a one-to-one relationship between the Roman alphabet and patterns of electromagnetic pulses of varying duration. Those pulses "encode" the Roman letters, and the Roman letters can be "decoded" from the impulses (say, by a receiver at the end of a transmission line). Each alphabet, then, represents the other. Analogously, the electrical signals produced by "spiking neurons" (including the rate of production of such spikes by populations of neurons) encodes information about the physical properties of the stimuli (both exteroceptive and interoceptive) that cause them (Rieke, Warland, Van Steveninck, and Bialek, 1997). It is possible to give precise mathematical expression to both encoding and decoding relationships, and to thereby lay the basis for quantitative models or simulations of higher-order neural behavior and the information processing it makes possible. Recent work by Eliasmith and Anderson has shown that these

models can be highly accurate for populations of up to 7200 neurons, and for modeling animal behaviors supported by such neural populations. It remains to be seen how well this “neural engineering framework” can be scaled up to handle very large neuronal networks and the psychological functions that they make possible in humans. But this is, in my view, one of the most promising avenues for giving a rigorous *quantitative* basis for scientific study of the human mind.

Implicit in this way of understanding representations is the notion of a hierarchy of such representations. For, where first-order representations (of physical stimuli) are possible, second- and higher-order representations may also be possible (depending, of course, on the other physical and informational resources of the neuronal system). A hierarchy of high-order representations requires more sophisticated mathematical representations of the encoding and decoding relations, with increasing dimensionality, and also allowing for the appearance of new emergent properties. Choice of appropriate mathematical methods is constrained by the parameters of the neurobiological system in question (Eliasmith and Anderson, 2003, pp. 48–49, 61–63). We may borrow this explanatory *armamentarium* to conceive of the self as an organized hierarchy of high-order representations, in sum as a meta-representational self. A deeply coherent organization of this hierarchy is required to generate an adequate notion of personal identity, as an individual who remembers her past and forecasts her own future along the arc determined by her most fundamental values. Having a sense of agency, and an accompanying sense of autonomy as an agent, also seems to require such coherence. That coherence is itself a developmental achievement and is contingent on the vicissitudes of normal psycho-social development. It can, therefore, be disrupted in varying degrees by developmental derailments, accidents or catastrophes, and disruptions of the coherence of the self can take the form of organized psychopathology (e.g., dissociative phenomena in major depressive disorder, personality disorders, post-traumatic stress disorder, or the psychoses). I further suppose, in line with contemporary developmental neurobiology, that the meta-representational self begins early in human ontogeny and starts out as a meta-representation of the body, advancing by degrees to include the self as a physical agent, and eventually as a fully autobiographical self situated in a complex network of social relationships (for neuroanatomical evidence of meta-representations of the body see Critchley, Matthias, and Dolan, 2001; Damasio, 1999). The bodily self depends on our capacity for decoding and integrating the information supplied by interoceptive stimuli, which integrative function is supported by the anterior cingulate cortex and the anterior insular cortex (Craig, 2003, 2009; Critchley, Wiens, Rotshtein, Öhman, and Dolan, 2004; Devue et al., 2007; Karnath, Baier, and Nägele, 2005). It is difficult to see how a human animal could even establish a point of view on the external world, or a sense of agency and its associated autonomy, without such higher-order representations. A meta-representational conception of the self also has the advantages of avoiding the Scylla and

Charybdis of both Cartesian dualism and Humean skepticism (about the self). It improves on Churchland's related idea of the self as a set of representations that is merely "coordinate[d] on an 'as-needed' basis, and arranged in a loose and loopy hierarchy" (2002, p. 309), which does not seem to me robust enough to support personal identity, first-person point of view, or agency.²

Such appearance and development of a coherent meta-representational self requires a regulatory system to monitor and evaluate its various essential parameters. This regulatory system is what I mean by "normal narcissistic functioning." The operations of normal narcissism occur largely outside of our conscious awareness, though it will, from time to time, have effects on consciousness. I consider below parameters concerning the temporal coherence of the self (in two respects), affective/hedonic parameters, the fundamental pattern of narcissistic dynamics, and some basic narcissistic emotions that respond to sundry narcissistic events.

Temporal Parameters

Implicit in the concept of a "minimally robust" meta-representational self is the notion of cohesion or coherence of that structure at a particular time (or over very short periods of time commensurate with the operations of working memory). This is the *synchronic unity* of the self. It is part of what allows an agent to understand that her actions are genuinely *initiated* by her (rather than by some other agent) and *belong* to her (rather than to some other agent), the twin basic dimensions of agency. Without such synchronic unity of the self, there can be no sense of autonomy (or its lack). Neither, of course, can there be any planning carried out by the agent without this basic kind of temporal coherence. Working memory, it is now generally agreed, is distributed over frontal and limbic areas of the brain, with especially important contributions from the prefrontal cortex and the anterior cingulate cortex (Kendo, Osaka, and Osaka, 2004; Mottaghy, 2006; Postle, 2006).

It is a further matter for a person to develop a sense of the coherence of the self across more substantial periods of time. This kind of temporal coherence will entail the full functioning of autobiographical memory, that type of long-term memory that allows us to connect events from the past to ourselves, that is to have a subjective biography at all. There is continuing disagreement among scientists about when this memory system matures, some arguing for its possession

²Searle (2005) argues that the self as a formal entity is required by the nature of our perceptual experience, if no other. However, a merely formal entity still seems too thin a conception of the self. I have deliberately left moot the issue of what kind of hierarchical organization selves require. Feinberg's (2005) hypothesis of a "nested hierarchy" is very attractive, not least for providing a more robust concept of the unity of the self than Searle's formal principle provides. However, the whole issue is well beyond the bounds of the present essay.

as early as two years of age (Howe, Courage, and Rooksby, 2009), others for between four and six years of age (Levine, 2004; for general discussion see Hermans, Raes, Philipott, and Kremers, 2006; and for evidence of autobiographical memory in great apes see Martin–Ordas, Haun, Colmenares, and Call, 2010). I will refer to this kind of temporal coherence of the self as its *diachronic unity*. This can be lost or eroded in psychiatric disorders such as schizophrenia, major depression, confabulatory disorders (e.g., Korsakov's syndrome), various forms of dementia (for which see Fujiwara and Markowitsch, 2005) and delusional/reduplication syndromes (Feinberg et al., 2005). Failure of diachronic unity may also underlie "freezing" and other withdrawal symptoms that characterize dissociative states in infants, children, and adults undergoing trauma (for a general discussion of such phenomena see Porges, 2004; Schore, 2009).

Synchronic and diachronic coherence of the self also depend on our capacities to integrate and represent temporally complex events intelligibly. Indeed, autobiographical memory will not be possible without these capacities. Recent neurobiological investigations find that regions of the prefrontal cortex and the parietal cortex are especially implicated in these activities (Browning and Gaffan, 2008; Yarkoni, Gray, Chrastil, Barch, Green, and Braver, 2005). These regions also are involved in calculating the expected reward value of action-outcomes, the narcissistic import of which is considered below. Both types of temporal coherence seem to me to posit dynamic arcs of tension within the meta-representational self, one on a relatively short scale and one on a longer scale, and both subject to a variety of challenges. Threats to either will mobilize various defensive maneuvers (e.g., confabulation or dissociation) in efforts to preserve the self structure from irremediable disintegration. It is part of the normal narcissistic system to monitor and maintain these conditions of temporal coherence.

Affective/Hedonic Parameters

It is thought by some that to establish and maintain a positive emotional tone towards the self is a basic function of normal narcissism (e.g., Stolorow, 1975). But contemporary empirical research on self-esteem suggests that this is too shallow a view. Also, to feel even very negative affects towards the self (e.g., guilt, shame, sadness, despair) is clearly appropriate in many situations, but does not show that the self is somehow thereby undervalued. Moreover, the causal relationship is backwards on Stolorow's view, suggesting as it does that self-worth is a function of relevant affective states rather than the other way round. Moreover, it is now customary to distinguish between explicit self-esteem, i.e., conscious feelings or judgments of self-liking, or self-acceptance; and implicit self-esteem, i.e., automatic, non-conscious, associational patterns of preference for the self (Lebel, 2010; Oakes, Brown, and Cai, 2008; Zeigler–Hill,

2006). And Stolorow's view does not take this into account. It is possible for explicit and implicit self-esteem to be congruent (Kernis, 2003; Koole and Kuhl, 2003; Oakes, Brown, and Cai, 2008), but often they are not. Perhaps for this reason, implicit self-esteem seems to be the most fundamental measure of how the self is valued, and also seems to be fundamental to healthy psycho-social functioning. These features of recent investigations of self-esteem are best explained by conceiving of self-esteem as a disposition (or set of dispositions) of the agent to advance his or her own values and projects, a form of aggressive self-assertion, especially in social contexts.³ Such self-assertion keeps the agent neither too independent of his social environments nor too dependent on them: "He knows not only what he does not want but also what he wants and is able to express this, irrespective of whether he will be loved or hated for it" (Miller, 1981, p. 33; cf. Hodgins, Brown, and Carver, 2007). Persons who function in this way are fully responsive to their social partners, especially those involved in valued alliances, and will not avoid either positive or negative feedback (Kernis, 2003; Koole and Kuhl, 2003). Such a manner of functioning is similar to some views of autonomy (Kernis, 2003, p. 14; Moller, Deci, and Ryan, 2006; Niemic, Ryan, and Brown, 2008; Ryan and Deci, 2008).

My concept of self-preference or self-assertion is closely related to what some call "self-activation," an important form of affect-regulation (Koole and Coenen, 2007; Schwinghammer and Stapel, 2006). According to this analysis, activation of "extended networks of cognitive-affective representations of autobiographical experiences, motives, and emotional preferences" has the power to very quickly (i.e., within 600 milliseconds) down-regulate negative emotions and moods (Koole and Kuhl, 2003, p. 44). This affect-regulatory function further supports the view that self-assertion/self-esteem is not constituted by positive affective states, but rather that such affects *follow* assertion of the self and its nuclear program (Erber and Erber, 2000; Koole and Jostmann, 2004; Oakes et al., 2008; Schwinghammer and Stapel, 2006; Van Dillen and Koole, 2007). Effectively and autonomously to shape the world within the agent's reach, while remaining epistemically and affectively responsive to the social environment is a part of functioning well in narcissistic terms. Exercise or actualization of the disposition for such self-preference will be among our most basic psychological needs.

It is also a function of normal narcissism to have these narcissistic needs satisfied (on balance). If an agent is effectively to monitor the satisfaction and/or dissatisfaction of specifically narcissistic needs, then he must be capable of generating narcissistic pleasure or displeasure. Such pleasure or displeasure (narcissistic

³Dispositional properties require analysis in terms of sets of counter-factual conditionals (Choi, 2006, 2009; Molnar, 1999; Prior, Pargetter, and Jackson, 1982). For defense of their causal relevance see McKittrick (2005); and for a general defense of realism about dispositions see Cross (2005) and Malzkorn (2000).

hedonic tone) can be understood in term of Schroeder's representational theory of pleasure:

To be pleased is (at least) to represent the net increase in desire satisfaction; to be displeased is to represent a net decrease in desire satisfaction. Intensity of pleasure or displeasure represents a degree of change in desire satisfaction. (2004, p. 90)

Such hedonic states are most likely the emergent products of interactions between the orbitofrontal cortex, elements of the limbic systems (especially the amygdala and the anterior cingulate), and the basal ganglia (especially the ventral region of the striatum, the ventral pallidum, and the nucleus accumbens).⁴ Most of the time, of course, an agent will be in a neutral condition, experiencing neither pleasure nor displeasure. But the capacity to be narcissistically pleased or displeased is an important element of the regulatory system I am describing (compare Ryan and Deci, 2008, pp. 702–707, and Muraven, Rosman, and Gagné, 2007 for autonomy heightening “vitality”). For, negative and positive hedonic states are among the most informationally rich signals to the agent of the agent's own functional condition. Having a range of narcissistically hedonic states available to us, while generally remaining in a hedonically neutral condition, implies a further notion of narcissistic balance or equilibrium, and with it the issue of homeostasis.

Narcissistic Dynamics

It has been common to understand normal narcissistic functioning as a homeostatic system (e.g., Cicchetti and Tucker, 1994; Schore, 1994, pp. 355–369). Such systems are familiar from ordinary experience with various kinds of automatic control devices. Heating and cooling systems, for example, commonly operate automatically under the control of a thermostat. Here “set points” determine the range within which temperature fluctuates, such that when ambient temperature falls outside the range, the system operates so as to lower or raise temperature appropriately; return to the set range shuts the system off. Control, in such systems, is accomplished by feed-back mechanisms of varying complexity. Some basic physiological systems in the human body appear to be homeostatic in their operation, with the set-points established as basic biological parameters. Thus, the acidity of the blood, the level of oxygen in the blood, the level of glucose in the blood, are controlled within very narrow ranges of values. Overall internal body temperature, similarly, is kept within a narrow range of values by a complex interaction of sweating, kidney function, constriction or expansion of blood

⁴See Kringsbach (2009) for a general discussion of the reward system, and De Greck et al. (2008) for a deep connection between that system and self-referential processing.

vessels, and so on. The well-functioning of such systems is vital for continued physiological life.

The concept of an allostatic system was developed by Sterling and Eyer in an important 1988 paper (cf. also Sterling, 2004). It has been considerably extended and elaborated by McEwen (2003; McEwen and Wingfield, 2003), and has now emerged as a full-fledged research paradigm applicable to a range of physiological and psychological phenomena (Schulkin, 2004). Allostatic systems operate largely along homeostatic lines, but also include at least two further meta-functions: a capacity to change the set-points within which homeostatic equilibrium is maintained, and a capacity for anticipatory or predictive responses that depend on “feed-forward” mechanisms, rather than feed-back (Power, 2004, pp. 346–351; Sterling, 2004; for a neural engineering model for feed-forward mechanisms, see Eliasmith and Anderson, 2003, chapter six). Various physiological systems, many of them involving steroidal hormones and/or neuro-transmitters (e.g., serotonin) are now understood to be essentially allostatic in their design and function. This analysis has made available more perspicuous understanding of such phenomena as hypertension (as an adaptation to sustained hyper-vigilance causing elevated levels of cortisol and stress on the hypothalamic-pituitary-adrenal “axis” or HPA system) and so-called metabolic syndrome with accompanying obesity (see discussion in Sterling, 2004). It is vital to allostatic systems that the set-points can change freely and appropriately, especially in response to sustained alterations of environmental demands. This gives rise to a concept of health as “optimal predictive fluctuation.” Sterling is worth quoting at length on this point, as it is fundamental to my conception of normal narcissism:

A shift in the probability of demand should shift the response, and when the prediction reverses, so should the response. A system becomes unhealthy when, during long periods of high demand, effectors adapt so strongly that they cease to follow promptly when the prediction reverses. (2004, pp. 54–55)

In allostatic systems, whether physiological or psychological, health entails adaptive set-points, accuracy of evaluation of “load” on the system, appropriateness of response to “load” and an adaptive capacity to re-calibrate the system when sustained patterns of load alter. Typically, altering the set-points of the system incurs substantial costs for the organism. I contend that normal narcissism, as a regulatory system, is allostatic in its functioning. Thus, the level of self-esteem in human agents fluctuates between set-points that are themselves subject to change. And optimally adaptive levels of esteem will depend on just where those set-points are: too high and we get pathological forms of grandiosity, too low and we get pathological forms of self-loathing or self-hatred. Much of the hard work of psycho-therapy, e.g., in cases of major depressive disorder or personality disorders, has to do with re-calibration of that range of values. Moreover, normal narcissism often involves anticipatory emotions which act as feed-forward

mechanisms. Healthy narcissism further entails, as noted earlier, a capacity for resilience in the face of narcissistic stress, which can readily be conceived as types of allostatic load. Narcissistically resilient persons can tolerate such loads and cope with them without resorting to forms of pathological behavior. Narcissistically healthy persons also evaluate narcissistic threats accurately, and can tolerate the imposition of such loads. It is a further feature of allostatic systems that they are normally activated for limited periods of time, that is, they are not designed to be in operation constantly (Power, 2004, p. 349). Similarly, self-esteem is a *quiet* phenomenon, normally only on our psychological horizon when it is disturbed or stressed. It is part of the theory of allostasis that the operation of such systems carries a “price,” in the form of wear and tear on the animal. Certainly, demand for re-calibration of the set-points governing self-esteem incurs analogous psychological wear and tear (that often spills over into physiological manifestations, including psychosomatic disorders: see Cohen, Janicki-Deverts, and Miller, 2007; Kiecolt-Glaser, 2009; Miller et al., 2008). The non-monetary price of successful psycho-therapy is often very high, though seldom discussed even by professionals in the field (an outstanding exception is Kinston and Cohen, 1986). Clinical and empirical investigations of narcissistic phenomena seem to me to demand that the basic dynamics of the system are allostatic.

It is not only stress, trauma, insults, and wounds that create allostatic load for normal narcissistic functioning, but also those positive experiences and states of consciousness that lead to hyper-positive affective and hedonic conditions. We expect, then, a variety of emotions to accompany normal narcissistic functioning. Three of these have special relevance to revenge.

Narcissistic Emotions

The emotions have become a hot-bed of philosophical investigation in recent years. I understand emotions to be representations, as that term has been understood previously in this essay, to be cognitive, in a broad sense of that term, and to function in a fashion analogous to other perceptual systems (Damasio, 1994; Lazarus, 1991; Prinz, 2004; Roberts, 2003). I suppose that some range of basic emotions is innate to the human infant, but that all emotions are subject to a complex process of regulation that is normally acquired in the first two years of post-natal life (Schore, 1994). All of these properties apply, *mutatis mutandis*, to narcissistic emotions. Three of these are especially relevant to our wider topic, revenge: anxiety, rage, and elation.

Perceived threats to narcissistic equilibrium, especially expectation of aversive events, will provoke narcissistic anxiety. This is notably so in circumstances in which the agent expects to fail to satisfy some fundamental value that structures

the self (part of their “ego ideal,” to use an older idiom). Like other forms of anxiety, narcissistic anxiety tends to activate stress hormones, and chronic stress tends to cause a shift in the allostatic set-points so as to make the individual susceptible to even crippling degrees of anxiety (McEwen, 2000, 2003; Rosen and Schulkin, 2004). This is notably so in cases of borderline personality disorders, which function as a natural laboratory for these dynamics. Here is one recent succinct statement of the essential phenomena:

The core of borderline disorders is the lack of a cohesive and stable sense of self. Among the central features that are associated with this lack of a consistent and organized self are emotional, interpersonal, and self-esteem lability. Borderline individuals show the externalizing attributes of impulsivity, along with some of the features of internalizing disorders such as susceptibility to depression, anxiety and fragmentation in the face of self-esteem-related losses. (Ryan, Deci, Grolnick, and La Guardia, 2006, p. 836)

Borderlines have weak ego boundaries and are especially liable to “terrifying threats of fusion, abandonment, and loss of identity” (Taylor, Bagby, and Parker, 1997, p. 165). Ordinary separations from a supportive therapist, for example, may occasion degrees of anxiety bordering on panic. Sadly, closeness to the therapeutic figure brings its own terrors of fusion and loss of identity that way. The intensity of such anxiety states is regularly and characteristically inappropriate to the situation (see Roberts, 2003, pp. 314–318 for inappropriate intensity as a form of “emotional error”). It is not surprising, then, that there is evidence in borderline disorders of dysfunction in the limbic regions specific to emotional regulation, e.g., the amygdala, the anterior cingulate cortex, and the hippocampus (Donegan et al., 2003; Juengling, Schmahl, Heßlinger, Ebert, and Lieb, 2003; Minzenberg, Fan, New, Tang, and Siever, 2008). Dysfunction of the anterior cingulate cortex is notable in this regard, because of its role as a top-down modulator of the amygdala, and thus as playing a major role in emotional regulation generally (Etkin, Engner, Peraza, Kandell, and Hirsch, 2006; Fan, Hof, Guise, Fossella, and Posner, 2008; Mohanty et al., 2007). The rostral region of the anterior cingulate has special relevance here, for it appears to be responsible for our capacity to forecast the affective value of anticipated action outcomes (Lungu, Liu, Waechter, Willingham, and Ashe, 2007; Onoda et al., 2008; Straube, Mentzel, and Miltner, 2007). Narcissistic threats are partially constituted by such information and narcissistic anxiety represents such forecasts. It is highly likely, then, that normal narcissistic functioning recruits the anterior cingulate cortex (especially its rostral sub-region), the amygdala, and their projections into the frontal cortical areas. Furthermore, it is predictable that disturbed patterns of narcissistic functioning will regularly show dysfunction in these areas.

The impulsivity of borderlines also finds expression in rage states, often related to narcissistic anxieties. Narcissistic rage is familiar to us in the form of the temper tantrums or rage-storms characteristic of toddlers. Such rage shows the intensity

and durability (as well as the self-orientation) characteristic of narcissistic emotions. In the normal case, the developing toddler learns to control his rage storms thereby converting narcissistic rage into ordinary anger. However, in pathological cases, narcissistic rage remains readily available, even for an adult. And, of course, under sufficiently severe narcissistic challenges, narcissistic rage will emerge in almost anyone. It is characteristic of borderline states, perhaps due to early excessive cell-death affecting the functionality of the right frontal cortex and its limbic connections (Schore, 1994, pp. 416–423) and/or associated neurotransmitter dysfunction (Friedel, 2004; Silva et al., 2007). From a phenomenological point of view, it is the “outsized” quality that most clearly marks narcissistic rage. Moreover, narcissistic rage can motivate overly aggressive responses, and this has clear relevance to revenge. Something similar should be said of narcissistic elation: it is characteristically more intense than any other form of elative affect and it has deep connections with revenge.

Just as we expect human agents to be sensitive to narcissistic threats and losses, we also expect them to be sensitive to narcissistic rewards. Narcissistic rewards tend to evoke elation. Schore describes this as “a state of pleasure plus the urge toward exuberance and contact-seeking” (1994, p. 83). Elation brings with it feelings of vigor, strength, readiness for action, and competence. It can be among the most intense of human affective states, especially when connected with demonstrations of the agent’s competence or mastery, with consequent satisfaction of central ego ideals. Elation in connection with experiences of competence or mastery appears early in human ontogeny, as Piaget (1936/1977, p. 186 *et passim*) demonstrated in clever experiments with his three-month-old son, Laurent. The same phenomenon has been repeatedly affirmed by developmental studies (e.g., Broucek, 1979; Frodi, Bridges, and Grolnick, 1985; Papousek and Papousek, 1975; White, 1959). Competence-based elation derives from the earliest experiences we have of ourselves as effective agents of change in our physical environment. And it appears to be one of the earliest and most durable elements of self-esteem (Fonagy, Gergely, Jurist, and Target, 2002, pp. 207–209; Vignemont and Fournier, 2004). Nothing tends to provoke narcissistic anxiety and/or rage more readily than the failure to appear to be a competent agent. To experience narcissistic elation later in life, then, is to recapitulate early elative experiences. The promise of such recapitulation (say, when anticipating successful revenge) is itself pleasant. Such emotions also have considerable motivational power. Consideration of that power will conclude our treatment of narcissistic emotions.

The motivational power of emotions is widely noted in the philosophical literature (e.g., Clore and Ortony, 2000; Lazarus, 1991, pp. 92–104; Roberts, 2003, pp. 157–170). It is tempting to suppose that emotions are *intrinsically* motivational, but this is a mistake. Indeed, there are good reasons to think that the motivational power of emotions is contingent and thus that some form of motivational

externalism is called for. One reason to think so is that emotional regulation is the result of a complex process of socialization that engages infants and caretakers together. The point is that this process depends vitally on the contingent properties of infant-caretaker interactions and their joint interactions with the wider social milieu (see Fonagy et al., 2002; Hobson, 2004; Schore, 1994; Sroufe, 1997). The manner in which emotions are regulated, in the older child and adult, is heavily influenced by these early social interactions, for early patterns, though changeable, are remarkably durable. Similarly, the manner in which emotions motivate action will also depend on early patterns of attachment and regulation (Schore, 2003a, p. 166). Secondly, there are forms of psychopathology in which emotions occur but lack motivational power either partially or altogether. Attenuation of the motivational force of emotions is evident in autism and cases of severe alexithymia (Hobson, 1993; Taylor et al., 1997). So-called "acquired sociopathy" involves deficits of frontal cortical functioning that may strip emotions completely of their motivational force (Blair and Cipolotti, 2000; Damasio, 1994, pp. 3–51). For both of these reasons, then, it seems that the motivational power of emotions cannot be merely intrinsic to them, but is, rather, a function of their contingent developmental history.

However, in most adult humans, narcissistic emotions and narcissistic dynamics operate in adaptive fashions. That is, this allostatic system, which I take to be a set of emergent functions dependent upon and realized in the prefrontal and orbital cortex, together with their connections to the limbic system and to the reward system in the basal ganglia, functions, at least roughly, optimally. As such, it is able to establish and maintain a stable and cohesive meta-representational self, together with stable and appropriate levels of self-esteem, and to respond appropriately to the normally occurring narcissistic challenges of human life. Among the challenges that this system has to evaluate and motivate behavioral responses to are those that typically give rise to revenge. I turn, then, to the task of displaying the narcissistic dimensions of revenge.

Some Narcissistic Dimensions of Revenge

Human life being what it is, narcissistic threats and wounds occur commonly. Normal narcissistic functioning entails that we not avoid or otherwise bypass such events. Rather, what matters is our capacity to repair the self-representation following narcissistically aversive events. Indeed, narcissistic disturbances of a normal variety constitute important feedback from the agent's internal and external environments. Of course, the most common form of narcissistic disturbance will be challenges to self-esteem and thereby to overall hedonic tone. Far less common and requiring more severe challenges, will be disturbances to the cohesion or continuity of the self and its representations. But even ordinary developmental crises may constitute graver narcissistic challenges. It is very

unlikely that a biologically intact and well-functioning adult human will avoid all such more profound narcissistic disturbances in their life time.

Many ordinary challenges to self-esteem require that the narcissistic system operate in its ordinary homeostatic mode. This mode of operation makes possible homeostatic narcissistic equilibration:

Homeostatic mechanisms respond to correct the deviations from a set-point by initiating restorative responses to correct the deviations and return the system to its homeostatic set-point. (Luu and Tucker, 2004, p. 125)

I gave reasons earlier for thinking that normal narcissistic functioning is most properly understood to be an allostatic system. This system therefore has a capacity not only to achieve narcissistic equilibration of this first type, but also to shift the set-points which define the range of normal homeostatic equilibrium. I suggest, then, that there is a second kind of narcissistic re-equilibration available, and this allostatic re-equilibration may well be what is sometimes required to recover from the most severe forms of narcissistic disturbances. Even chronic imbalance of self-esteem, for example in major depressive disorder, may require protracted work at establishing new and more functional set-points. Challenges to self-cohesion or self-continuity (as in borderline personality disorder or schizophrenia) may likewise require more extensive and fundamental overhaul of the system's operational parameters. It is the adaptive or plastic qualities of the system that are most valuable and conducive to overall well-functioning. And it is these qualities which are most needed to recover from the severe forms of psychological disturbance that may affect the self-regulatory system (La Guardia and Ryff, 2003, p. 50).

My thesis is that the fundamental psychological meaning of revenge is as a *form of narcissistic repair*. Of course, revenge can have many functions, including functions that have little reference to narcissistic repair. And neither is every act of revenge an instance of narcissistic repair. But such repair, I contend, is frequently a central motivation for revenge and a cause of the pleasure animals of our species typically derive from successful acts of revenge. What follows are reasons for thinking so together with various dividends that such a view generates.

Retribution and Normal Narcissism

A capacity for effective action in the world is a vital part of human self-esteem. Our earliest experiences of narcissistic elation attach to our discovery of ourselves as such agents, able to project our purposes onto the world and to shape our external environment according to those purposes. We are not able for long to tolerate a self-representation as an incompetent or ineffective agent, and we will seek to redress such a representation, both in fantasy and in real

action in the world. Such redress is often a secondary function of retribution, and revenge, as we recall, is fundamentally retributive in character. Retribution is a form of aggressive behavior, which in turn is commonly defined by psychologists “as behavior directed toward another individual and carried out with the intent to cause harm. Furthermore, the perpetrator must believe that the behavior will harm the target, and that the target is motivated to avoid the behavior” (Anderson and Carnagey, 2004, p. 170; cf. Anderson and Bushman, 2002). Anderson and Carnagey go on to characterize forms of reactive aggression according to a four-dimensional model that includes “degree of hostile or agitated affect present.” In cases of revenge-retribution the affects likely to be present include narcissistic ones, notably narcissistic rage and narcissistic elation (upon successful completion), together with respective hedonic measures. Numerous empirical studies show very clearly the deep connection between threats to narcissistic equilibrium and consequent aggressive behavior (Barry, Chaplin, and Grafeman, 2006; Baumeister, Smark, and Boden, 1996; Bond, Ruaro, and Winegrove, 2006; Bushman and Baumeister, 1998; Bushman, Bonacci, van Dijk, and Baumeister, 2003; Konrath, Bushman, and Campbell, 2006; Stucke and Sporer, 2002; Twenge and Campbell, 2003). *A fortiori*, we may expect that actual narcissistic blows or wounds will similarly generate aggressive action, of which revenge-retribution is one of the most common.

Clinical evidence also suggests that revenge be understood in the role of narcissistic repair. In a study of compulsive shop-lifting by persons who had suffered grave and chronic narcissistic wounds (one had survived six years in concentration camps during World War II), Anna Ornstein (herself a survivor of Auschwitz) and her colleagues discovered that the stealing regularly had retributive and revengeful meaning and was clearly aimed at narcissistic reconstitution or repair. Their comments also underscore the dynamic motif of reversal:

The act of revenge restitutes the self either through attempts to annihilate the sources of narcissistic injury or through turning a passive, humiliating experience into an active one, even though the target of the act of revenge may no longer be the original offending object. In either instance, the act of revenge provides a sense of mastery that protects a fragmentation-prone self from further fragmentation. (Ornstein, Gropper, and Bogner, 1983, p. 326)

Fonagy reports the case of “Tony,” a borderline adolescent who suffered from a central narcissistic vulnerability that left him prey to disintegration anxiety when faced with his inability to prevent the effective suicide of a fellow patient whom he cared for. Eventually Tony murdered his own father as “his ultimate revenge” (Fonagy et al., 2002, pp. 324–330; Fonagy et al., 1993). In these extreme cases we see revenge behavior used for the purpose of restoring narcissistic equilibrium (Sommers, 2009, p. 37 is thus wrong to say that “Retaliation cannot undo the harm committed by the offense”). Barton (1999, pp. 101–141) discusses

at length the relationship between revenge and “empowerment,” which is an equivalent claim.

Narcissism, Emotion, and Frontal Asymmetries

It is common in empirical psychological literature to distinguish two “motivational directions” for emotions: “approach-motivated” and “withdrawal-motivated.” Anger, in this view, is typically “approach-motivated” though, of course, everyone is familiar with forms of *angry withdrawal* as well. Investigations of frontal cortical activity have given reasons for thinking that approach-motivated emotions and behaviors activate the left hemisphere of the frontal lobes, while withdrawal motivated emotions and behavior activate the right hemisphere (Harmon-Jones, 2007; Harmon-Jones, Vaughn-Scott, Mohr, Sigelman, and Harmon-Jones, 2004; Rohlfs and Ramirez, 2006). Similar patterns of lateralization have been found in studies directly of aggression. It might be expected, then, that retributive behavior (especially when motivated by anger) would implicate left-frontal activity. In a series of recent studies, this hypothesis has found support. Among these studies are some which used an experimental set-up which had specific relevance to narcissistic dynamics. Subjects were asked to write an argumentative essay on some topic of general interest (the legality of smoking in public places, and the like). They were later given feedback on their essay which was deliberately insulting. Moreover, these insults attacked the writers’ intelligence, logic, respectability, rationality, as well as the interest generated by their essay. These kinds of insults attack the self-esteem of the subjects, especially their competence, and thus constitute narcissistic challenges. In their most recent study, Harmon-Jones and his colleagues have succeeded in showing that deliberately increasing left-prefrontal activity actually causes an increase in behavioral aggression and associated anger (Peterson, Shackman, and Harmon-Jones, 2008). What these studies of frontal lobe asymmetry show is a close connection between left-dominant-prefrontal cortex activity and anger-induced aggression, *where the anger is induced by way of distinctively narcissistic challenges.*

Neuro-scientific studies of retaliatory behavior show related activation of prefrontal cortical areas, notably the ventral-medial and dorsal-lateral regions. These studies also show evidence of activation in the anterior cingulate and other elements of the reward system. This raises the question of the extent to which I can offer empirical support for my earlier hypothesis that narcissistic pleasures engage the same frontal-limbic-basal system.

Revenge and the Reward System

In their studies of retaliatory aggression under laboratory conditions, Krämer, Lotze, and their colleagues have shown that prefrontal areas, limbic areas, and

basal ganglia regions are all engaged when individuals take revenge. That is, when individuals are allowed to retaliate against their opponents in various paradigms of aggressive behavior, they show activation of their prefrontal cortex, ventral striatum, anterior insula, anterior cingulate cortex (especially its rostral sub-region), and the nucleus accumbens (Krämer, Jansma, Tempelmann, and Müntz, 2007; Lotze, Veit, Anders, and Birbaumer, 2007). Studies of "altruistic punishment" show similar results: punishment of free-riders in an economic game, for example, is commonly motivated by high levels of anger (five and above on a 7-point scale for 85% of participants), and that this angry response is fully expected by the free-riders themselves (Fehr and Gächter, 2002). Neural activity in such conditions replicates that found by Krämer et al. (2007) and Lotze et al. (2007): engagement of prefrontal cortical areas with limbic and basal ganglia regions associated with reward processing (De Quervain et al., 2004; Singer, Seymour, O'Doherty, Stephan, Dolan, and Frith, 2006).

The patterns of prefrontal activity shown in these studies are consistent with that known to represent the "neural signature" of compliance with social norms and with the signature of social preferences, both of which are likely to be engaged in retaliatory/revenge behavior (Fehr and Camerer, 2007; Spitzer, Fischbaker, Hermberger, Grön, and Fehr, 2007). Damasio has shown that persons suffering lesions to their frontal lobes typically exhibit *failures* in their capacities to follow social preferences and to comply with social norms, as noted earlier. Norms and preferences will have a substantial role to play in the socialization process that leads to the normal ego ideal. It is not surprising, then, that frontal dysfunctions are implicated in failure to comply with social norms in borderline personality disorder (King-Casas et al., 2008; Schmahl and Bremner, 2006; Silbersweig et al., 2007). Similarly, lesions to the medial prefrontal cortex, the amygdala, or the cingulate cortex commonly cause deficits in social cognition and decision making, both in humans and other primates (Bachevalier and Malkova, 2006; Bar-On, Tranel, Denburg, and Bechara, 2003; Hadland, Rushworth, Gaffan, and Passingham, 2003; Lee, Rushworth, Walton, Watanabe, and Sakagami, 2007; Mah, Arnold, and Grafman, 2005; Rudebeck, Buckley, Walton, and Rushworth, 2006).⁵ Schizophrenics show a closely similar pattern of neural deficits and social dysfunction (Brunet-Gouet and Decety, 2006; MacDonald et al., 2005; McIntosh et al., 2008; Wood et al., 2007). Kim, Shimojo, and O'Doherty (2006) found that avoiding aversive outcomes also engages the reward system, which seems an important finding for revenge studies because sometimes avoiding an enemy's depredations is itself perceived as a form of revenge. One difficulty, however, is that these studies may presume that participants are able to fore-

⁵However, one should take into account the contrary findings of Bird, Castelli, Malik, Frith, and Husain (2004). On the whole issue of continuity between human social cognition and primate social cognition, see Gallese and Umiltà (2006) and Seyfarth, Cheney, and Bergman (2005).

cast accurately the affective/hedonic outcomes of future actions. Carlsmith, Wilson, and Gilbert (2008) express doubts about the accuracy of such forecasts and infer that our expectations of pleasure attaching to revenge are often misplaced. Other studies also find evidence of bias in forecasting pleasure/displeasure: Mellers and McGraw (2001) found their participants to be accurate in laboratory settings, but to regularly overestimate displeasure of future negative outcomes in real life. Kermer, Driver-Linn, Wilson, and Gilbert (2006) give evidence of systematic overestimation of the intensity and duration of affective responses to future losses. Such a bias might have adaptive value along the lines suggested by Fredrickson and Branigan (2005). The relevance of these laboratory-based studies (usually involving games in which little is at stake) to real-life revenge scenarios, however, is open to question. It is enough for my purposes that most agents *expect* pleasure from successful retaliatory actions, even if that expectation is more confidently made than is warranted. These expectations need not be veridical in order to be psychologically effective.

Several of these investigators explicitly refer in their studies of retaliatory reward to the *sweetness* of revenge. In my view, they are exactly right to do so. Revenge is often sweet, and its sweetness is established in the adult human agent by means of the reward system. Given the narcissistic nature of retaliatory aggression, and the engagement of the reward system, I believe that recent neuro-scientific investigations come as close as one could wish (in the current state of our technology) to empirical confirmation that revenge is motivated by narcissistic pleasure. De Quervain and her colleagues remind us that “altruism” has two senses: one biological and one psychological (2004, p. 1257). Actions are biologically altruistic if they confer no material benefits on the actor and do confer benefits on others. Actions are psychologically altruistic if they are not motivated by hedonic rewards. Punishment is altruistic in the first sense but not in the second. The view of revenge taken here is compatible: revenge characteristically, and perhaps essentially, engages the normal narcissistic regulatory system and its pleasures. Those pleasures, however, have internal conceptual structure that further reveals the narcissistic lineaments of revenge.

Revenge and Some Sub-types of Narcissistic Pleasure

Aristotle observed that “what is pleasant is the activity of the present, the hope of the future, the memory of the past” (*Nicomachean Ethics* IX.7, 1168a 13–15; and cf. Rozin, 2003). His analysis applies to the pleasures of revenge. Revenge may be delayed, even for very substantial periods of time (relative to the average life-span of individuals or the span of an average professional career, or even the life-span of groups and institutions). In one case known to me, a young academic unwittingly caused a grave narcissistic wound in an older colleague, only to have it revenged (by denial of tenure) many years later.

And, as is well known, feuds can last for very long periods, years, decades, even centuries, though all cycles of revenge burn themselves out sooner or later. Fletcher (2003) recounts of a feud in the north of England that lasted 150 years and Otterbein (2000) discusses one that lasted for just over a century. Delay may be necessitated by a wide variety of circumstances: perhaps the object of revenge is not readily available for some period of time; perhaps the right combination of means, method, and opportunity has not yet arisen, and so on. Good timing, then, may be an essential element of successful revenge (see Sommers, 2009 for cultures in which too long a delay is explicitly proscribed). But delay may also belong to a strategy that is designed to enhance the anticipatory pleasures of revenge: savoring.

Bryant defines “savoring” as: “generating, intensifying, and prolonging enjoyment [of positive events] through one’s own volition” (2003, p. 176; cf. Tugade and Fredrickson, 2007). Savoring has been depicted recently as one of several narcissistic strategies for promoting psychological resilience. Among these strategies are: cultivating positive emotions; good emotional regulation (itself a part of normal narcissistic functioning); and cultivation of positive self-esteem (Bonano, 2005; Cicchetti and Rogosch, 1997; Curtis and Cicchetti, 2007; Luthar, 2006; Ong, Bergman, Bisconti, and Wallace, 2006). Fredrickson and Branigan (2005, p. 314) include savoring among the strategies that have adaptive value because the strategies “broaden individuals’ momentary thought-action repertoires, prompting them to pursue a wider range of thoughts and actions than is typical.” Anticipation of a positive event is one form of savoring, while occurrent enjoyment of the same event is another, and reminiscing about the event is yet a third. These correspond well to Aristotle’s observation. We know that people intent on revenge frequently fantasize in advance how that revenge might go. The pleasures of such fantasies can be intense, as noted earlier. These are distinctly narcissistic in so far as they depict the agent of the fantasized revenge as powerful, competent, effective. Indeed, so strong can be the narcissistic pleasures of imagining revenge in advance that some psychologists refer to the “restorative” power of such fantasies, quite apart from any consideration of the narcissistic repair value of actual revenge (Horowitz, 2007; Rhue and Lynn, 1987). The prospects of reminiscing about successful revenge, for long periods of time afterward, militates against the idea that successful revenge can deliver only short-term satisfaction (*pace* Bar-Elli and Heyd, 1986, p. 79). Retrospective savoring, of course, is another species of fantasizing, though one more likely than is anticipatory fantasy to correspond to the truth.

I suggest that there are other kinds of pleasure attaching to revenge. There is the pleasure of satisfying the demands of justice, particularly in those cases where revenge is the only form of justice available. There is the pleasure in satisfying important social norms, especially in cultures where revenge itself is norm-governed. And there is the pleasure of satisfying the demands of the ego

ideal. Each of these has distinctive narcissistic rewards attaching to them, though not all at the same remove. The second and third implicitly contain aspects of self-congratulation or self-approval. And the first has the added dimension of appearing both to oneself and to important others in the social milieu to be a champion of justice. It thus appears that these pleasures of revenge are irreducibly narcissistic, even where other axiological dimensions may be in play.

The possibility of *symbolic* revenge, lying somewhere between merely imagined or fantasized revenge and actual revenge itself, should also be here included. One may fantasize about shooting one's enemy, but actually be contented with surviving his depredations and living well. Or one may find a way to "pay him back" by producing a scholarly article that refutes his favored hypothesis or undermines his standing in the relevant academic community. Elizabeth Hardwick, a long-time editor of the *New York Review of Books*, is reported to have once said: "There are really only two reasons to write: desperation or revenge" (Pinckney, 2008). Many creative works have revenge as one of their goals, and yet retain their positive cultural value. The composer Igor Stravinsky is reported to have told the following story, as a case in point:

I am convinced that it was my misfortune that my father was spiritually very distant from me and that even my mother had no love for me. When my oldest brother died unexpectedly (without my mother transferring her feelings from him onto me, and my father, also, remaining as reserved as ever), I resolved that one day I would show them. Now this day has come and gone. No one remembers this day but me, who am [sic] its only remaining witness. (quoted in Miller, 1981, pp. 43–44)

I conjecture that it was by his destruction of many hitherto accepted and authoritative musical forms and conventions that Stravinsky took a symbolically conspicuous revenge for a similarly conspicuous offense. In any case, the narcissistic value of his symbolic revenge is clear. Of course, "symbolic" here does not mean "merely pretend." Rather, what we are seeing is a form of sublimation, whereby the destructive and harmful intent of the avenger is fully present in his action and realized through it, but in a sublimated form. This is one way in which we may come to terms both with the narcissistic damage that was done to us, and with our aggressive responses to it, and do so in a socially acceptable fashion.

Finally, I turn to consider several puzzles about revenge raised by recent writers on the subject. Solutions to these puzzles invite deployment of the theory of normal narcissistic functioning and its pleasures.

Narcissistic Solutions to Some Puzzles About Revenge

Elster proposes that revenge is often norm-governed and that norms, in turn, have an irreducible emotive aspect. He further asserts (correctly) that "if norms

can regulate expectations and behavior, it is ultimately because they have a grip on the mind that is due to the strong emotions they can trigger" (1992, p. 157). And yet, just how it is that norms "have a grip on the mind" is not made clear. This is the puzzle of the motivational gap. One way to close the gap is to appeal to normal narcissistic functioning. On this view, norms of revenge have a grip on the mind by virtue of that mind's imperative need for narcissistic equilibrium, and by virtue of the powerful narcissistic emotions that disturbances to that equilibrium evoke. To be a competent self and thus a competent agent in the world at all, depends vitally on that narcissistic balance, on the stability and cohesion of our meta-representational self, and on our capacity to fend off narcissistic threats and to repair the damage done by actual narcissistic blows and wounds. If the account of normal narcissism given above is even approximately correct, then we cannot expect adult members of our species to be unresponsive to norms governing vengeful or retaliatory behavior. And all human cultures whatsoever, even those that do not explicitly sanction revenge, engage in retaliation and retaliatory punishment for violations of social conventions and expectations.

Later in his essay, Elster argues that it is honor that is the key to understanding revenge and its associated norms or codes (where these exist). This is fundamentally correct, not least because honor is a narcissistically loaded concept. He goes on to point out that "spontaneous revenge behavior is universal: norms of revenge are not. In many societies there would, if anything, seem to be a norm against seeking revenge and, correlatively, injunctions to turn the other cheek" (1992, p. 176). How can it be that "spontaneous revenge behavior" is universal in human culture, but norms sanctioning revenge are not? Elster suggests that there must be an evolutionary solution to this puzzle. And he is probably right about that. However, it seems to me that he is not right to say that revenge behavior is "spontaneous." If it is right that revenge springs from a deep human need for narcissistic repair and re-equilibration, then it is by no means spontaneous. That is, its sources are not inherently mysterious or merely incidental, and neither is its appearance in human affairs. Indeed, revenge becomes entirely predictable and expectable. If you threaten or wound someone else narcissistically, you may expect them to take revenge upon you (or yours) in due course if they are able. If someone delivers such a threat, blow, or wound to you, you may expect to discover an urge to take revenge. And the more conspicuous the offense is, the more conspicuous the remedy must be if the narcissistic equilibrium is to be struck at all.

Neither is the urge to seek honor spontaneous, for it belongs to the same system. As Elster himself points out: "Its aim is sheer self-assertion and self-esteem" (1992, p. 176). But, while honor may take a myriad of forms, with regard to its outward display or achievement, its psychological meaning is fundamentally narcissistic, in the sense that our theory gives to that term. It is not possible to

be a coherent and cohesive self acting successfully in the world without an intact and well-functioning narcissistic system. It is not possible to seek or promote honor, to avoid or disapprove dishonor, without this developmental achievement. Only the most grievously damaged members of our species are non-responsive to the demands of normal narcissism. And this is why honor, in one form or another, is found in all human cultures. This is also why revenge is so often tied to the maintenance of honor.

But neither is it puzzling that societies might forbid revenge. It is, after all, dangerous and liable to get out of hand. Many of the functions revenge once served for our species have been taken over by the institutions of centralized political and judicial power (all of which were, presumably, absent in the early environment of adaptation for our species). And it belongs to an interior regulatory system that we often find frightening, inexplicable, and even disgusting, deeply associated with basic emotions (hatred, guilt, shame) that we find troubling and problematic. Disavowing revenge is one way of not knowing some of the darker elements of ourselves. And, of course, revenge can make cooperation in social life more difficult than it otherwise would be. But no long-term or large-scale human goals were ever achieved without cooperation. And yet, if the scientists are correct, then retaliatory punishment is essential to cooperation (most of the experiments in punishment mentioned earlier involve violations of cooperative norms). It thus appears likely that without a rich capacity for retaliatory punishment, humans would not be able to develop cooperative strategies on the scale that they have. And where there is a capacity for retaliatory punishment, there is a capacity for revenge.

It thus seems likely that revenge itself actually belongs to the evolutionary development of social cooperation in our species and in our nearest primate relatives. The development of social cooperation has been given evolutionary explanations by a wide range of contemporary investigators (Axelrod, 1984; Boyd and Richerson, 1985; Cheney and Seyfarth, 2007; Ridley, 1998; Sober and Wilson, 1998; Tomasello, 2009). We know that normal narcissistic functioning has its developmental roots in the earliest periods of human ontogeny, notably in the second half of the second year of life, when auto-regulation of emotions, including narcissistic rage and elation, is normally achieved (Schore, 1994). We know that rudimentary narcissistic phenomena begin even earlier. And we know that revenge behavior can be found among early toddlers. We also know that revenge is commonly found in hunter-gatherer cultures and in traditional tribal cultures, especially where there are no central governing powers or institutions (Boehm, 1999, pp. 79–84, 94–98; cf. Sober and Wilson, 1998, pp. 142–149). Such cultures are generally considered by anthropologists to open a window onto the early environment of adaptation for our species. We also know that revenge can be found in other primates, notably chimpanzees, bonobos, and macaque monkeys, all of whom are our close evolutionary relatives (Aureli,

Cozzolino, Cordischi, and Scucchi, 1992; De Waal and Luttrell, 1988; Silk, 1992). It is very likely, then, that revenge came into our species when our species first split off from the great apes, and that revenge belonged to our earliest evolutionary experience. It is by no means surprising, then, that it — and its associated psychological and social norms — should be so indelibly imprinted on the human scene. And this brings us to the last and final puzzle: the urgency of revenge.

Revenge and the urge for revenge is dangerous, to be sure. No student of literature or of human history could think otherwise. But neither is human cooperation possible, it seems, without at least the possibility of revenge. Why will the mere possibility not be enough? The need for revenge is often felt to be imperative, urgent. In his excellent essay on the *lex talionis*, Frijda has grasped this point with great clarity: "Damage to self-esteem is like the gown that Nessos threw over Hercules. It clings, it envelops and does not go away. It does not diminish in time, because it colors one's dealings with both the self and the environment, as well as being resuscitatable upon signs that recall the humiliating events" (Frijda, 1994, p. 278). Melville's depiction of Ahab's need for revenge also captures this urgency well: it is "an audacious, immitigable, and supernatural revenge." I think that this urgency is a function of two features of the narcissistic system. The first is simply that the system has to do with the self and the meta-representations of which it consists. Narcissistic threats and wounds can strike at the core of the personality. If they are sufficiently severe, they can threaten the psychological fabric out of which the personality is woven. There simply cannot be a more fundamental form of threat or a more damaging form of psychological wound, without simply threatening or effecting the death of the agent altogether. Indeed, were the self actually to undergo disintegration, rather than merely feel threatened with disintegration, bodily death would not be far behind. The second element is the strength and intensity of narcissistic emotions, most notably narcissistic anxiety, rage, and elation, all three of which are implicated in revenge. Thus, when Melville says that Ahab's "monomaniac" revenge arises from "the mad secret of his unabated rage," he has understood very well, in my view, exactly what it is that can motivate an audacious and immitigable revenge. There is no self apart from normal narcissism, and there are neither so strong displeasures nor so strong pleasures as those which this regulatory system affords.

The urgency of revenge depends, then, on the imperative for narcissistic repair. And that imperative is universal to the human species (barring organic brain damage, disease, genetic damage or developmental arrest sufficient to disable normal narcissistic functioning altogether or to prevent its formation in the first place). It may be that in some future human society much more mature than our own, revenge will only be sought in symbolic terms or in the sublimated and depersonalized forms of social justice. But until then, we may

expect to find it active in every human organization and institution, in every family, in every professional society, in every tribe or other extended kinship system.

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