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## *Fons et Origo*: A Darwinian View of Selfobject Theory and the Arts

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**Abstract:** Four important themes in self psychology as developed by Heinz Kohut are remarkably congruent with current theoretical constructs in the field of evolutionary (Darwinian) psychology: (1) the concept of narcissism; (2) the claim for the innate human capacity for empathy; (3) the recognition of the importance of group cohesion and (4) the belief that individual psychological distress is produced by a changed environment rather than a dysfunctional self. By recasting Kohut's themes in a Darwinian framework and interpreting them with personal views of the phylogenetic origin and nature of the arts (Dissanayake, 2000), I describe and make clear the central importance of art experience to the developing selfobject relationship as well as to the evolution of the human species.

As one who writes about the arts from the Darwinian framework of evolutionary psychology, I have been intrigued to discover interesting and possibly fruitful correspondences between my ideas and selfobject theory as articulated by Heinz Kohut and others who, like him, have antecedents in the British psychological tradition called object relations.

In *Art and Intimacy* (Dissanayake, 2000), I described exquisite inborn capacities of infants as young as eight weeks of age that predispose them to social and emotional interaction with others, capacities that, as a package, have been termed by psychologists "intersubjectivity" or "attunement." I propose that these sensitivities can be viewed as the biological *fons et origo* of the selfobject relationship as elucidated by Kohut and his followers, of John Bowlby's earlier notion of attachment, and—in a Darwinian or evolutionary sense—of later experiences of the arts. In this paper I suggest that Kohut's concept of narcissism, his claims for the innate human capacity for empathy, his recognition of the importance of group cohesion, and his belief that individual psychological distress is produced by a changed environment (not a dysfunctional self) all gain in plausibility and relevance when supported with related concepts from Darwinian—what is today called evolutionary—psychology. What the evolutionary view adds to self psychology is to make clear the central importance of the arts (that is, of art experience) to the developing selfobject relationship, as well as to the evolution of the human species.

### Narcissism and Self-Interest Imply Intersubjectivity

Darwin . . . perceives that human beings are social animals and that their whole motivational and emotional organization is geared toward interdependent interaction with other humans (J. Carroll, 2003:32-33).

Kohut (1972:127) admitted that narcissism, an important concept in self psychology, has a pejorative connotation both popularly, where it suggests childish vanity, and in psychology derived from Freud, where it is considered a product of regression or defense. In contrast,

narcissism for Kohut is a "psychological force *sui generis*," fundamental to the nuclear self and essential to later creativity.

To critics of contemporary evolutionary psychology, the term self interest is similarly pejorative, suggesting a callous and unregenerate lack of concern for others. Insofar as the purpose of life for any organism is to survive and reproduce, the choices that humans make generally have to do (whether recognized as such or not) with what is perceived to be in one's interest: They pertain to matters such as satisfying one's own needs and appetites for nourishment, care, safety, and acceptance by and regard by one's associates; learning to perform the activities required by one's physical and social environment; acquiring a mate and offspring, and so forth. Over evolutionary time, individuals who were not equipped to look out for these interests did not survive or reproduce and left no descendants with similar diffidence about their personal welfare.

Yet in the Darwinian, as in the Kohutian sense of the self, an attribution of sheer egocentrism and self-regard is a misconception. For both, human self interest and narcissism do not arise from implacable and selfish sexual and destructive drives (as per the Eros and Thanatos of classical psychoanalytic theory) or from mindless imperatives to compete for mates and other resources (as in "nature red in tooth and claw" caricatures). At least some recent writings by evolutionary psychologists emphasize that human nature is founded upon and developed through intimate, sympathetic interaction with others, a view that Darwin also maintained.<sup>1</sup>

This "kinder, gentler" Darwinism is not professed by all evolutionary psychologists, not because they have considered it carefully but because the field has historically emphasized individual competition and self-interest more than sympathy and cooperation. Standard or orthodox evolutionary psychology is, I suggest, in a stage that might be compared to psychoanalysis before the revisionism of object relations. That is to say, evolutionary psychology also finds primary motivations in sex (finding and choosing mates and mating) and aggression (competition between males, mates, siblings, and even between sperm). It views humans as intrinsically narcissistic (selfish or self-interested), with kindness to others (altruism) a problem to be explained.

In order to be relevant to self psychology, a revisionist evolutionary psychology is offered here, one that finds an "instinct" for mutuality or relationship to be as strong and important as an instinct for self-interest. Although one can claim with some cogency that relationship is essential to a more fundamental self-interest, conceptualizing relationship or mutuality in this way obscures important features of human psychobiology (e.g., sympathy, aid, reciprocity, emotional coordination) that beg for recognition and incorporation into a more complete view of human nature.

An evolutionary psychology of relationship or selfobject relations is implicit in the findings of a number of developmental psychologists, whose work shows the remarkable precocity of infants for anticipating, soliciting, and responding to communicative signals from the adults

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<sup>1</sup> For recent volumes with this more balanced view see Bjorklund and Pellegrini (2002) and Ellis and Bjorklund (2005).

whose world they are born into (see next section and papers by Stern, 1971, 1985; Brazelton, Koslowski, and Main, 1974; Trevarthen, 1977, 1979, 1980; Beebe, Stern, and Jaffe, 1979; Tronick, Als, and Adamson, 1979; Stern et al., 1985; Beebe, Lachman, and Jaffe, 1997; Jaffe et al., 2001).

### Emotional Coordination and Empathy

The capacity for empathy belongs to the innate equipment of the human psyche. (Kohut 1966:116)

Developmental studies confirm Kohut's (1981b:257) claim that humans "are constructed psychologically to be born into a matrix of responsive selfobjects." A few minutes after birth a neonate shows a preference for its mother's voice, which it has heard from within the womb (DeCasper and Fifer, 1980); even before birth, it can identify the mother's voice (Spence and DeCasper, 1982). It can imitate facial expressions such as putting out the tongue or opening the mouth, or opening and closing a hand (Kugiumutzakis, 1993; Meltzoff and Moore, 1977). Neonates discriminate among adults' facial expressions of sadness, fear, and surprise with corresponding expressions of their own (Field et al., 1982), and can estimate or anticipate intervals or sequences of time (DeCasper and Carstens, 1980).

At six weeks, infants are sensitive to the time pattern of a face-to-face social exchange with mother or another person, extracting temporal information displayed via one modality (adult vocalization) and expressing this information by means of a different modality (infant gaze) (Jaffe et al., 2001). Infants develop expectancies of these patterns, remember them, and categorize them. The expectations are organized through time, space, affect, and arousal (Beebe et al., 1997).

Early interaction studies began to appear in response to John Bowlby's influential formulation of infant "attachment" to a caretaker that for Bowlby occurred between 6 and 8 months of age (Bowlby, 1969). These studies revealed how socially precocious infants are, a precocity that is still insufficiently recognized and appreciated by most psychologists. For example, infants' temporal sensitivity permits them at six to eight weeks to engage with adults in multimodal (vocal, visual, kinesic) dyadic interactions based on the infant's expectation of social contingency or "interpersonal sequential dependency" (Miall and Dissanayake, 2003) in which the behavior and affect of both partners are coordinated or "attuned" (Jaffe et al., 2001). When normal ongoing playful interaction via dual video is experimentally desynchronized (i.e., the baby is presented with a slightly-delayed replayed recorded sequence of just-experienced positive interaction with the mother), six- to twelve-week infants show signs of psychological distress such as averted gaze, closed mouth, frown, grimace, fingering of clothing, and the displacement activity of yawning (Murray and Trevarthen, 1985; Nadel, 1996; Nadel et al., 1999). Although an external observer detects no apparent difference in the mother's behavior, to the infant her noncontingency is distressingly uncoordinated with its own responses that normally affect the subtleties of the mother's sounds and movements.

The claims arising from early interaction studies are corroborated by the work of neurobiologists (Schore, 1994; Trevarthen and Aitken, 1995, Aitken and Trevarthen, 1997; Trevarthen, 1999), which describe the pathological effects of deficiency in interactive ability of

either infant or mother and makes clear the importance of such interactions in reinforcing neural structures that are predisposed for social-emotional functioning. Even older children and young adults with profound mental handicap can participate in and enjoy such interactions with sensitive caregivers, strongly indicating "a biologically robust system of basic emotional communication" (Burford, 1988). Music therapists utilize similar principles of "inter-regulatory attuning" as they interact with verbally uncommunicative, troubled individuals (Robarts, 2003).

If attachment behavior evolved, as proposed by Bowlby, to enable the survival of six-to-eight-month infants by encouraging their mothers' proximity and care, what purpose was served by the earlier-appearing exquisite mechanisms of emotional communication between adults and infants from birth to five months?<sup>2</sup> Familiarity with our hominid past suggests an answer.

During human evolution, the gradual achievement of bipedality required anatomical modifications of bones and muscles, including broadening and shortening the pelvis and reshaping the birth canal. As selection for increasingly large brains was also taking place, other adaptations were required to permit successful births. These included physical changes in mother (e.g., separable pubic symphysis) and infant (e.g., compressibility of neonate crania, extensive brain growth outside the womb), as well as selection for infants that are born at an earlier, relatively undeveloped state compared to other primates. The obligatory helplessness of human infants at birth then required psychological mechanisms to persuade adults to want to care for their demanding offspring for the requisite months and years.

Falk (2004) reports from analyses of fossil hominids that difficult births were a feature of ancestral life before 1.6 million years ago, a time at which spoken language had not appeared.<sup>3</sup> She finds it reasonable to suppose, however, that prosodic inflections of prelinguistic expressive sounds made by mothers to infants could have been selected for their benefits to infants (silencing or reassuring them, and controlling their behavior), and that infants who showed responsiveness to such signals would have had enhanced survivorship.<sup>4</sup>

In addition, I have proposed that spontaneous evolved signals of affiliation used by humans today and observable in some primates--such as gaze, smile, raised eyebrows, head nods,

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<sup>2</sup> In the scheme presented here, mother-infant intersubjectivity (emotional communication) is a precursor to classical attachment behavior and has a different motivation and outcome. Emotional communication in early infancy of course promotes later attachment.

<sup>3</sup> Falk (2004) suggests that spoken language was made possible by adaptations in the vocal apparatus that was first used for "motherese," the undulant, repetitive, high-pitched utterances directed to infants. Motherese, along with maternal ritualized facial expressions and face and body movements, contribute to emotional communication between mother-infant pairs, as described in the text.

<sup>4</sup> I maintain that the orthodox interpretations of caretaker-infant communication in evolutionary psychology—manipulation and deceit—do not go far enough, and indeed mask the singularity and importance of (a) the exchange of honest emotional signals between a mother-infant pair with joint and relational as well as individual interests and (b) the consequent behavioral and emotional coordination or attunement that takes place.

touches, and pats--were made by ancestral mothers to show affection to their babies. If over evolutionary time these behaviors in vocal, visual, and kinesic modalities became increasingly interactive and organized in a common temporal framework (Trevarthen, 1999), they could have given rise to the attunement that we see today, upon which human emotional interactivity and coordination are based. This evolutionary reconstruction (or one like it) suggests that Kohutian selfobject psychology is grounded upon human capacities and needs that were perfected over at least a million and a half years of hominid evolution.

In *Art and Intimacy*, I suggested that, in addition to the need for mutuality, at least four other fundamental human psychological needs are prefigured in the earliest emotional communications of the mother-infant pair (the first self-selfobject relationship). These universal human needs—for belonging, meaning, hands-on competence, and elaborating—are inherent in self psychology as conceived by Kohut and his followers, although conceptualized or described somewhat differently (see the sections “The Group Self Manifested Through the Arts” and “Arts and Anxiety”).

### The Group Self Manifested Through the Arts

The self-selfobject relationship of mother and child . . . provides data for the group self's psychological needs . . . and its handling of what Kohut calls cultural selfobjects (Bacal & Newman, 1990: xxix).

Kohut's writings suggest that the self-selfobject relationship of mother and child, achieved through the mechanisms of emotional coordination described in the previous section, provides the foundation for the "group self" (the common psychological experiences of individuals in a group). Although Kohut draws from Western classical and modern civilization for examples of the group self and "cultural selfobjects," his concepts are equally applicable to the ceremonial activities of premodern small-scale societies like those in which humans lived for hundreds of thousands of generations.

If the mother-infant relationship provides an empathic matrix in which an individual self is "mirrored and sustained" (Kohut, 1978:85), it is within and by means of larger social groups that such affirmation continues. In small-scale societies, individuals become part of their social group through rites of passage and other ceremonial practices in which the beliefs and values of the group are articulated, affirmed, and reinforced. Indeed, acquaintance with human history and its recurrent ethnocentric strife might suggest that the group self is more readily acquired by individuals than the selfhood, self-development, and self-actualization that are considered psychologically desirable in modern societies, although they often result in the fragmented selves that seek therapeutic treatment (see next section).

Using Kohut's terminology, what is displayed and achieved in ceremonies is the group self, and this transformation is accomplished *au fond* through the arts. Without the visual panoply and its associated songs, dances, dramatic performances, and evocative utterances, there is no ceremony--only the ordinary aspects, words, sounds, movements, and occurrences of every day. I (Dissanayake, 2000) have suggested that the arts originated in ceremonial observances—in the elaborated, formalized, exaggerated, and repeated visual, vocal, and gestural displays that

characterize ceremonial practices in every human society that has been described (see the section “Art and Anxiety”).

Significantly, the mother's visual, vocal, and gestural signals to infants, the elements that create the emotional coordination of the mother-infant relationship (again, the earliest self-selfobject relationship), are themselves elaborated, formalized, exaggerated, and repeated forms of everyday behavior. Normal, friendly facial expressions are altered and maintained (widened eyes, sustained gaze, open mouth, exaggerated smile), as are affiliative vocalizations (made exaggeratedly undulant, high pitched, and repetitious) and gestures (repeated pats and touches, rhythmic nods, sharp head bobs). Those who have called mother-infant interaction a "dance" or "duet" or "performance" are accurately reflecting the aesthetic elements that compose it. The ethological term for such operations on behavior in other animals is "ritualization," reflecting their formal, repetitive, exaggerated nature. In modern parlance, we note the formal, repeated, exaggerated visual, vocal, and gestural elements of traditional ceremonies and call them arts.

Just as the close "interpersonal sequential dependency" of the interactive visual, vocal, and gestural elements between mother and infant emotionally coordinates the pair and creates the intimate self-selfobject relationship, so do the sequences of ceremonial, artful behavior emotionally coordinate the participating members of the group, and reinforce the feelings of belonging and meaning that comprise the self-selfobject relationship of the Kohutian group self. As mother-infant interaction is the *fons et origo* of the self (as realized through self-selfobject relationship), it is the evolutionary *fons et origo* for the arts as well. One can say that it is through the arts (as the elements of ceremony that foster a group self) that humans were evolved to acquire the feelings of belonging and meaning (see end of the section “Emotional Coordination and Empathy”) that are critical to a psychologically fulfilled life. Even today, when the arts are typically created and even appreciated in solitude, their origins in the mechanisms for mutuality suggest that they are motivated by a desire for intersubjective communication and response.

### Pleistocene Psychology and Contemporary Psychotherapy

A healthy group self . . . is continuously sustained in its course throughout time . . . within a matrix of selfobjects who are in empathic contact with its changing needs (Kohut, 1978: 88). It is the deprivation of cultural selfobjects that matters most (Kohut 1981a:225).

Although Freud described discontents consequent to civilization, he did not base his suppositions on actual studies of pre-civilized human beings. Nor did *The Golden Bough*, Frazer's (1890) treatise on the exotic lives of savages that inspired and informed early twentieth-century scholars, rely on the kind of empirical ethnographic study that is accepted today. There is, for example, no anthropological evidence of a "primal horde" and accompanying patricide.

However faulty in its details, however, Freud's imaginative construction was presciently correct in recognizing that civilization--the stratified, hierarchical, settled, populous life that agriculture made possible—became increasingly inimical to human psychology as it had developed over millennia for a hunter-gatherer life (Diamond, 1992)—what I will call here "Pleistocene psychology."

Evolution occurs over hundreds of thousands of generations, as successive individuals gradually become adapted—physiologically, anatomically, psychologically, and behaviorally—to the requirements of a particular way of life. Our remote ancestors, upright-walking hominids who lived as foragers, hunting and gathering, appear in the archaeological record at least five million years ago and our genus, *Homo*, has been identified at two million years. It is an error to assume that the needs, desires, responses, and values evolved by our forebears over 99 percent of their existence could have changed significantly during the last decade, century, millennium, or even 5 millennia, when some populations left foraging for settled agrarian life. Clearly, 5,000 to 10,000 years of "civilization" has not been sufficient time to alter a human psychology that evolved over several million years in quite different social and subsistence circumstances.

Humans evolved to live—to function well—in small interdependent nomadic bands of fifteen to twenty-five kin or associates who periodically come together with other bands, to know everyone they meet, to share beliefs with associates, to be able to make with their own hands the things needed for their lives, and to address the problems and anxieties of daily existence with group-tested lore and socially-shared ceremony. (These latter two characteristics contribute to the "hands-on competence" and the "elaborating" mentioned in the section "Emotional Coordination and Empathy").

Hugh Brody, a Canadian who has lived intimately for more than thirty years with several North American forager groups, has described the "sturdiness of the hunter-gatherer personality, the virtual universality of self-confidence and equanimity, the absence of anxiety disorders and most depressive illnesses" (Brody, 2000:195).<sup>5</sup> He notes that because birth intervals are spaced more widely than in premodern agricultural societies, the forager mother-infant attachment is very close and secure. "Typically a mother keeps a child close to her at all times, often in actual physical contact, until the next child is born or the baby is weaned" (Brody, 2000: p.340, n. 194). Generally, also, "on a very wide range of matters, the child is trusted to know what is right for it—its word is accepted rather than opposed," which, Brody suggests contributes to "creating and securing confident and healthy personalities."<sup>6</sup>

Although the clients of psychotherapists today are members of modern societies, not foragers or agrarians, it should be of interest to recognize that *for the most part* human problems today are caused by the mismatch between evolved Pleistocene psychology and the demands and deficiencies of a contemporary milieu that is far different from that in which such a psychology

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<sup>5</sup> Brody does not claim that his companions lacked all "mental illness" or depression; one could point out that neurochemical imbalances that lead to psychoses, including the effects of lack of sunlight during long periods of the Northern year, would affect individual hunter-gatherers as they do some people in every human population.

<sup>6</sup> Brody (2001:340, n. 194) further reports that disorders pertaining to control and parental manipulation are strikingly few in the hunter-gatherer societies he has known, suggesting that "the traditional psychoanalytic model that emphasizes the adversarial relationship between the instinct-driven infant and an adult world that seeks to tame and socialize him" (Bacal and Newman, 1990:212) was not the ancestral pattern.

evolved. It is modern life that produces the pathologies we see, not original sin or intrinsic destructiveness. Kohut claimed as much when he proposed that apart from the psychoneuroses (i.e., brain malfunction), mental disorders are determined by various kinds and degrees of environmental deficiency (Bacal & Newman, 1990:198) and that contemporary societies provide their members with "distorted and perverse idealizations" of cultural selfobjects (Kohut 1981a:225).

An understanding of the effects on modern lives of these "deficiencies" and "distortions" of legitimate needs (including, in my terms, lack of humanly-satisfying routes for fulfilling emotional needs for belonging, meaning, and hands-on competence, and opportunities for "art"—the elaboration of socially-shared significances)—helps us not only to understand the widespread need for psychotherapy but perhaps to fashion treatments which take our innate Pleistocene psychology into account.

Apart from the work of John Bowlby, current theory in psychoanalytic practice or writing—whether founded on object relations, self psychology, or more classical formulations—has paid little or no attention to findings or concepts based on Darwinian theory. Although publications on Darwinian medicine and psychiatry exist (e.g., Glantz and Pearce, 1989; McGuire et al., 1994, Nesse and Williams, 1996; McGuire and Troisi, 1998), their underlying principle—that humans are an animal species whose mind and behavior, as well as anatomy and physiology, have evolved—is scarcely acknowledged within the larger psychotherapeutic community.

Darwinian psychiatry claims that it is from the mismatch between our modern way of life and our evolved emotional predispositions that most behavioral and psychological "problems" arise. For example, forager children are not expected to sit quietly for hours at school desks; adolescent forager boys and young men are primed to engage in exciting communal activities that utilize masculine strength and aptitudes for running, tree climbing, accurate throwing, and fabricating tools, dwellings, and weapons.

Moreover, in societies where one's entire life was spent intimately with others and occupied in unquestioned, culturally meaningful activities, modern feelings of a lack of self-cohesion or of being alone are not likely to have occurred. As described by Brody (2000), hunter-gatherer infants sleep with adults and are carried on their mothers' bodies or passed around and held by others at all times. It is unlikely that they would have need of Winnicottian "transitional objects" (Kohut 1966:114).

There are other implications of Pleistocene psychology for contemporary understanding of the arts. Of considerable interest is that "creativity," as we think of it today, does not have the importance in premodern (and, by extension, ancestral) lives that it has acquired in secular and complex modern cultures that value originality and individuality in artists. Kathryn Coe (2003) makes a strong case that in human history and prehistory copying has been more important than creativity, which tends to increase when traditions and respect for ancestors decline. Traditional lives, without written records, rely on memory to get things right. In order to be effective, images must be rendered correctly and songs, dances, and stories correctly performed. Gradual cultural change can be explained by forgetfulness, improvisation, and the human attraction to novelty (despite the possibility for error). In addition, some people would have been better storytellers



than others, and might have embroidered a tale; some would have been more skillful than others at song, dance, and drama, adding a flourish or accessory that might become incorporated on future occasions.

## Art and Anxiety

All art . . . is wish-fulfillment (Kohut, n.d.:38).

If the arts derive from elements of mutuality, as I outlined in the section “Emotional Coordination and Empathy,” what motivated the ceremonies in which they became integral? Orthodox evolutionary psychology emphasizes the adaptive problems that ancestral humans faced—those of social life, parenting, kinship, sexual attractiveness, mate choice, aggression, the avoidance of danger, and so on (Tooby and Cosmides, 1992:99). Such matters continue to concern humans today, as psychotherapists can attest. In this concluding section I will discuss an adaptive problem and its evolved “solution” that is rarely addressed by evolutionary psychologists: the recognition by humans of their existential helplessness or vulnerability that resulted in the predisposition to devise cultural beliefs and practices that are commonly called “religion.”<sup>7</sup>

Like the arts, religion is found in every known human society. Indeed, as already described, the two invariably occur together in ceremonial rituals where the arts might be seen as the behavioral counterpart of the underlying belief systems that explain and try to affect positively (or control) the world. In all known societies, ritual ceremonies are performed at times of transition between one state and another, where a good outcome is not certain. Typical are rites of passage between one life stage and the next, as at birth, puberty, marriage, childbearing, and death. Or ceremonies may be called for at times of want, illness, danger, and dissension—that is, in order to assure subsistence, health, safety, social harmony and general prosperity. It is as if the motivation to assure a good outcome impels evidence of actions correlative to the emotional investment.

My hypothesis is that emotional responses to the formalizations, exaggerations, repetitions, and elaborations already evolved in the mother-infant interaction were found by ancestral adults, inadvertently in quite other circumstances, to provide a sense of dealing with—controlling—the anxieties produced by perceived danger and uncertainty. This could have happened in the simplest of ways. Margaret Mead (1930) writes about the Manus huddling together in a storm, repetitively chanting magical charms to abate the power of the wind. For a social species like humans, chanting in a group when fearful, even simply weeping or moaning rhythmically together, is more comforting than solitary actions and, if the storm subsides without mishap, might well lead the next time to further elaborated forms of “what we do when it is stormy.” Feeling some measure of psychological control, members of the group would experience alleviation of personal anxiety, and the concomitant reduction of stress hormones would result in

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<sup>7</sup> Space does not permit a discussion of recent evolutionary studies of religion (e.g., Boyer, 1994, 2001; Irons, 2001; Wilson, 2002; Sosis, 2003), which conceptualize religion and its functions rather differently from my scheme here.

better general health for them than for individuals who lacked a means of coping throughout a lifetime of danger and uncertainty.

As another example, ritualized lamenting, which is found in a number of societies, appears to have originated from weeping in grief. In the terminology of this essay, a lament is formalized, repeated, exaggerated, and elaborated weeping and mourning and becomes not ordinary wailing but a kind of song or poetic utterance. Again, lamenting is a means of coping, both expressing and controlling grief and feelings of loss.

In addition to providing a sense of control of individual anxiety, participation in art-filled ceremonies psychologically unifies members of a group. Beliefs are reinforced as they are enacted in extravagant, memorable, sensorily-rich, and emotionally gratifying ways. Moving and vocalizing together in temporal sequence, even vicariously, enacts iconically a psychological unity, resulting in reduction of stress hormones and the production of opioids and other neurochemicals that contribute to the feeling of social bondedness (Carter et al., 1992; Nelson and Panksepp 1998; Miller and Rodgers, 2001).<sup>8</sup>

In my hypothetical reconstruction, then, the *fons et origo* of the arts can be found in evolved visual, vocal, and gestural elements of interactions between ancestral mothers and their infants. For the sake of their own survival, babies evolved to be innately equipped to elicit and respond emotionally to these elements, which then became, in effect, a reservoir which adults (who were once babies) could draw upon, in quite different contexts, to produce the emotionally affecting and effective behaviors of shaping, repeating, exaggerating, and elaborating that we call the arts.

The wish-fulfilling function of the arts, articulated by Nietzsche, Freud, Kohut, and others, is accurate at one level in that human suffering—the deprivations, disappointments, and inevitable losses of life—is sometimes too great to bear. If the comforts of the arts, in themselves or allied with religion, are illusory, they nevertheless provide real relief of anxiety—if only temporarily—and have perhaps evolved, at least in part, as a way to cope with otherwise intolerable psychological pain.

As Kohut recognized, art making and experience are motivated by more than self-pathology. The anxiety that originally gave rise to the arts in ceremonial ritual was derived from well-founded concerns about satisfying the most vital needs: obtaining food, avoiding physical danger, and successfully traversing developmental stages over the life course that reflected and required physical and psychological change. In modern societies, the arts are not typically made to affect physical survival but they continue to be about humanly-relevant subjects (e.g., love, loss, pain, death, family, status, identity, the natural world) and the transcendent questions that thoughtful mortal creatures are moved to ask about the world and the meaning of their existence in it.

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<sup>8</sup> Neurohypophyseal hormones like oxytocin and vasopressin, as well as arginine vasotonin, seem to be especially important for attachment and other social and sexual behaviors in nonhuman animals. (See papers in Pedersen et al. 1992).

In the ceremonies of a forager community, individuals have prescribed outlets for addressing uncertainties by their own and others' artful actions, as well as frequent opportunities for participation in gratifying, socially-shared entertainment. One might conclude that there is an appetitive need to shape and elaborate one's experience when in the power of strong emotion. Although in a secular society such outlets and opportunities are not especially encouraged, one sees this sort of compulsion in contemporary people when they are in love—writing poetry, planning occasions with a “special touch,” recognizing astonishing resonances and connections to one's beloved in ordinary life events—and, as spontaneously occurred in the United States in 2001, in times of national catastrophe. After the destruction of the towers of the World Trade Center in New York City, people from every part of the country came together in beautiful, peaceful places (churches, parks) to listen to artful and liturgical speech, to sing, to bear candles in procession, and to offer flowers, flags, and written poems or prayers. No one called these “arts,” but they were no less a response to overpowering uncertainty than Trobriand Islanders' lavishly carved and painted seagoing canoes, the soaring painted facades of Abelam ceremonial houses in Papua New Guinea, the Paleolithic paintings of animals on the walls of deep caves, and the extraordinary external and internal decor of great cathedrals, mosques, and temples everywhere in the world.

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