

Shine: the Structures of Pathological
Accommodation and Reverse Selfobject Experiences

Ronald R. Lee Ph.D.

The story of David Helfgott in the Australian movie *Shine* illustrates Brandchaft's (1994) concept of structures of pathological accommodation. It reveals how David, when encouraged to live in contexts where this kind of accommodation was no longer appropriate, displayed psychotic-like behavior.

Brandchaft has compared his construct with Kohut's deficit theory. Although Brandchaft represents Kohut's position as emphasizing selfobject functioning and empathic repairing, and his own as accentuating structuralization, this may be a false dichotomy. With his concepts of self-sectors, peripheral and core self structures, and compensatory structures, Kohut (1977) clearly balanced his theoretical emphasis on structuralization with selfobject experiences. He understood that an absence of selfobject experiences did not lead to a complete absence of structure, but to structures that were not healthily assertive.

Similarly, Brandchaft does not give so much weight to structuralization that he ignores selfobject functioning. This is shown by his awareness that a patient's pathological accommodating is a selfobject experience in which the child feels responsible for the parent (Lee, 1988, 1999). It is this selfobject function that makes it difficult for those caught in the web of an unhealthy accommodating relationship to free themselves when given a chance. A patient's reverse selfobject experience helps make more sense out of the structures of pathological accommodation.

There is a vast difference between treating a person with a firm core self, whose accommodating behavior is structured in one of the peripheral self-sectors, and those whose accommodation arises from structures of the core self. Treatment that focuses on accommodating structures in the core self involves a re-enactment of a mutually cohesive maintenance relationship with a parent (therapist). Treatment failures occur when therapists become uncomfortable with maintenance goals and begin to push for "progress." Then they have co-created the patient's experience of needing to meet the therapist's agenda rather than out of his/her own personal need for assertiveness. If a therapist is able to accept the therapeutic relationship such patients co-create, and eventually make an understanding of this relationship clear without shaming the patient, new experiences will develop that foster a patient's therapeutic progress.

The Australian movie *Shine*, which covers the early life, mental collapse, and eventual public acceptance of the Australian musical prodigy David Helfgott, demonstrates one consequence of a child functioning as a selfobject for a parent (Lee, 1988, 1999) and the resulting development of structures of pathological accommodation (Brandchaft, 1994). David's psychiatrist, Dr. Susan Wynn, has publicly diagnosed David as a schizo-affective disorder, and this diagnosis tends to support what his behavior suggests. From a self-psychological perspective, Helfgott can be considered as a severe self-disorder. As the movie *Shine* has brought so many details of Helfgott's life into the public domain: including Wynn's opinions, the stories of family members, and extensive television and media interviews, it offers valuable resource because it illustrates material for theoretical issues in the psychotherapy with pathologically accommodating patients, without the risk of breaking confidentiality.

In what follows, we (a) look at movie interactions to illustrate key themes in David's upbringing, (b) discuss his life through a comparison of the reverse selfobject experience, structures of pathological accommodation, and deficit theories (c) and then focus on treatment issues.

(a) David Helfgott's upbringing

I have already proposed that David was a selfobject for his father. As is now well known, Heinz Kohut (1971) developed the concept of a selfobject to explain the behavior of patients, such as Miss F, who persisted in treating Kohut as if he lacked a center of initiative and was nothing more than an extension (pp. 283-293). David Helfgott's father, Peter, a self-taught violinist with frustrated musical ambitions, imposed his own ambitions on David as his self-extension, and passionately sought to live these through him.

The movie portrays David's father as a cruel, authoritarian personality (Adorno, 1950). David says, in his rapid, muttering style, "Daddy's very religious, very religious, very strict, and a bit of a menace, but he got exterminated, didn't he. God didn't help him. Ha, Ha." In response to David's hostile comment about his father, David's sister, Margaret, says that their father was kind and considerate. Margaret may, indeed, have experienced her father as kind and considerate because she did not function as a selfobject for him, or she may have blamed David's mental illness to support her contention of David's distorted perception of their father. But there are too many who witnessed the father's strict, authoritarian behavior for Margaret's view to be accepted at face value.

Margaret, who possibly saw her father's punitiveness with David, may have idealized him as a defense against the shame she experienced as family flaws were exhibited to the whole world.

Kohut (1971) and Gedo (1981) discuss such defensive idealization (pseudo idealization). And even though Margaret plans to publish her point of view, nothing she says can alter the fact that Shine is based on David's subjective account of how he experienced his father and, therefore, offers excellent source material for empathically understanding David Helfgott.

In the opening few minutes of the movie, David gives his view of himself. He says, "Perhaps I haven't got a soul. Daddy said there is no such thing as a soul." As soul is sometimes used as a synonym for the self, David seems to be describing his condition as one in which he has no solid sense of self, that is, without a firm nuclear self-organization and therefore, a person whom self-psychology sees as a severe self-disorder. And it's not difficult to understand why.

Early in the movie, the pre-teenage David takes part in a local concert. The compare asks David, "What are you going to play, David?" Before the shy David responds Peter quickly answers for him, "Chopin, The Polonaise." The camera then captures the faces of the judges, whose looks suggest that this was a ridiculously ambitious piece of music for such a small boy. Soon, however, the judges are engrossed in David's skilful, vigorous playing as the unanchored piano slowly moves across the stage. At the conclusion, when the compare says, "That was great, David," the father bursts out in pride with "He's my son, he's my son." But the next scene is a gloomy one, with father and son walking home, the father angrily striding in front, and David, head down in shame, dragging ten yards in the rear. Looking on, one sister says to the other, "He lost, now we'll cop it." The message is clear: the father is not only ambitious, but a poor loser because of the narcissistic wound to him, and because he treats losing with contempt and punishment.

Later that evening David and his father play chess. When David makes a wrong move the father gleefully pounces, goading David with "your losing, you're losing!" Then Peter gives an

explanation for his envy-tinged goading, saying, "Your a very lucky boy, David. I once bought a violin and my father found it and smashed it, because he never allowed music in the home." From the father's perspective David was lucky because he was allowed to play music, experiences for which the father had longed. Yet Peter's obsession with David's musical progress prevented David from developing as other children.

Peter Helfgott's merger with David was further evident that evening. Ben Rosen, one of the local contest judges, knocks on the door of the Helfgott home and asks to come in. He addresses David. "You were very good this afternoon David." David politely says, "thank you." The father interjects, "He can play better." Responding kindly, Rosen says to the father, "Maybe he was too good, some people don't like that." Rosen then said, "We gave David a special prize for his courage," but when he attempted to hand the prize to David, the father snatched the small package, implying it would spoil the boy or that he had too much pride to accept charity. Rosen then deliberately addresses David, "That was a difficult piece you chose David. Even great pianists would think twice about choosing that piece." David responds, "Daddy chose it." Rosen then turned to Peter and gave the opinion that David was talented enough to justify a teacher. The father coldly replied, "No-one taught me," and shuffled Rosen out the door.

Soon after this incident, David's need to please his father emerged around the musical composition, "Rach" 3. This is Rachmaninoff's extremely difficult piano concerto, which David realized was highly valued because his father repeatedly played it on a wind-up gramophone. David, mirroring his father, says of "Rach" 3, "Its beautiful. Will you teach me?" The father responds, "It is the hardest piece in the world. One day you will play it and make me very proud." Then referring back to the competition, the father says, "Next time, what are we going to do?" On cue, David replies, "We are going to win!" But the interaction around the playing of Rach 3, stirred

the imagination of the father and eventually led him to relent and take David to Rosen for lessons, saying, "Teach him Rachmaninoff."

Under Rosen's tutelage David made sufficient progress to enter and win a national talent competition when 14 years of age. When the famous violinist Isaac Stern presented the award he said to David, "You have a special talent," to which David precociously responded, "So do you Mr. Stern." When Stern asks David "how much are you prepared to give to your music, David?" the father couldn't contain himself and from the back of the audience shouts David's lines "Everything, everything!" Then Stern gives an invitation for David to come to America. But, if the father resisted Rosen as David's teacher, he resisted more strongly David's moving to study in the U.S.A. The father angrily says, "He's not going to America because it will destroy his family. I'm his father and I know what is best." From a theoretical perspective the father did not want to lose David as his selfobject or as his cohesive function because he would have feared his own fragmentation.

Deeply hurt by his father's rejection, a desperate David goes to Rosen's house where no one is home. Agonizingly alone, David breaks down and cries at Rosen's front door. Later that night, wet, cold, defeated, David returns home with an affectively frozen face, and takes a bath. When his father comes into the bathroom David reveals his disgust by defecating in the bath. This behavior twinned the disgust David experienced from his father, who lashed him with a towel, and as he does this, screams, "you are a disgusting!" After this interaction David withdraws into himself and goes to bed, a bed that his mother said he regularly wet until his teens. The father, knowing he has hurt David, goads and lectures him. He says, "David, my boy, its a terrible thing to hate your father. I know that life is cruel but music will always be your friend, everything will let you down. You have to survive. Say it." Robotically David repeats the words "You have to survive." The

father continues, "No-one will love you like me. You can't trust anyone. I will always be with you."

As the story continues, David is befriended by a benefactress, Katherine Fisher, eventually studies at the Royal College of Music in London, is "excommunicated" by his embittered, intractable father and, several months after his triumphant Rach 3 recital in the college auditorium, begins to succumb to an increasingly dysfunctional condition. If only his father had been able to mirror him and affirm his pride in him as he had indicated he would years before, David may have gained release from his accommodating prison. But the father could not function this way and David becomes dysfunctional and spends ten years living in mental institutions, before eventually meeting Gillian, an older woman who understands him, marries him, cares for him, and helps resurrect his musical career.

(b) Structures of pathological accommodation and reverse selfobject experiences

David Helfgott's self-organization can be seen as an example of Brandchaft's (1994) "structures of pathological accommodation." Such structures are not Freudian defenses, that is, distortions generated by intrapsychic mechanisms in response to drives; they have resulted from a persistent type of intersubjective experience with a significant other. In David's case, it was the experience of a dominating father who consistently, persistently imposed his own will on David. David's accommodating behavior is as a result of his response as a child to the burden of living out the identity that has been imposed by his father on him.

The dominant feature of pathological accommodation is not parental imposition of a specific self-organization on a child, but the child's need for an attachment bond and especially the

cohesive function of feeling responsible for the self-cohesion of a parent. David Helfgott seems to have felt responsible for preventing his father from fragmenting into a rageful, punitive state where everyone in the family "copped it." His role involved "a reverse selfobject experience" (Lee, 1988), functioning to prevent a parent's fragmentation. Such a reverse selfobject experience limits the pathological accommodating child's self-organizing of new experiences involving initiative because the paramount concern is the maintenance of a parent's cohesion. The cohesion achieved is at the expense of the child's own differentiation and sense of autonomy. Structures of pathological accommodation are defensive in the Kohutian sense of preventing self-fragmentation.

Brandchaft's emphasis on "structures of pathological accommodation" tends to shift attention away from a patient's subjective self-states that accompany this behavior. Brandchaft's major point of difference with Kohut is that once the accommodating behavior has become heavily structuralized a patient is unable to have a selfobject experience as a means of developing new structures. He thinks that concepts of selfobject functions and empathic repairs are insufficient to adequately encompass psychotherapy with patients whose nuclear self-organization is entirely structured around pathological accommodation. Kohut, however, believed it was possible through empathic immersion and an understanding of and eventual explanation of the patient's repetitive transference of seeking to accommodate the therapist, that a narcissistic transference will eventually emerge and new structuralizations of the patient's initiatives will occur.

Based on his theory of pathological accommodation, Brandchaft criticizes Kohut's idea that pathology comes from an absence of structuralization. His theoretical difference with Kohut seems to hinge upon the assumption that Kohut's "absence of selfobject functioning" leads to an absence of structuralization. Clearly, Kohut believed structuralization still occurs with insufficient selfobject functioning, as he saw (Kohut, 1977) that structuralization takes place in some self-

sectors to compensate for underdeveloped structures in others. Kohut also claimed that inadequate selfobject functioning determined which self-sectors remained underdeveloped. From a Kohutian perspective, pathologically accommodating structures developed, because accommodating behaviors were mirrored by a key parent and thoughts and actions reflecting self-agency and assertiveness were not, not because there was a “general lack of selfobject functioning.”

Kohut’s theory actually covers the idea of pathological accommodation even though he did not use the term. He demonstrated a differentiation between a "growth-promoting selfobject experience" and a "self-object experience of pathological compliance." He (1984) says, "There is a decisive difference between the support of selfobjects that are sought after and chosen by a self in harmony with its innermost ideals...and the abandoning of oneself to a foreign self, through which one gains borrowed cohesion at the price of genuine initiative and creative participation in life" (p. 167). Furthermore, as the case of Mr. Z shows, Kohut was aware of Mr. Z's enmeshment with, and therefore, accommodation of his mother, the "noxious selfobject" (Kohut, 1979, p. 416) and the way this enmeshment played a central role in Mr. Z's development. Brandchaft too had observed this kind of maternal enmeshment expects accommodation by the child and that when the pattern is enforced in numerous transactions during childhood, it becomes structuralized as the child's cohesion-producing tie to a pathologically possessive mother, who was accepted as unquestioned reality.

Kohut's thinks that insufficient selfobject experiences determine the quality and amount of structuralization that occurs, but never a complete absence of structuralization. Support for limited structuralization still taking place in conditions severely lacking selfobject responding, comes from Huttenlocher (1997, 1999, 2002), a neurobiologist at the University of Chicago. He used an electron microscope and the Golgi-Cox method during autopsies to count the dendrites in pinhead

sized brain samples, to find a decrease in the number and length of dendrites in a child of an "impoverished" background compared with one with an "enriched" history. Those with an impoverished background history had less synaptic connections ("delayed synaptogenesis"), hence less structuralization than the enriched background group. Furthermore, Huttenlocher's view of structural deficiency is supported by mammalian studies (Green and Greenough, 1986; Sirevang and Greenough, 1988; Greenough, Alcantara, Hawrylak and Anderson, 1992). Rats exposed to a super-enriched environment of other rats and toys in a group cage instead of an individual cage, eventually increased their neural connectors 25% compared with individually caged rats. These studies encouraged the view that an "enriched" learning environment for disadvantaged infants in the earliest years of their could be successful in increasing their level of education, hence structuralization, and help lift them out of their poverty, unemployment, alcoholism, and drug dependency.

Ramey (Campbell and Ramey, 1990; Ramey and Ramey, 2003) demonstrates evidence of an inadequate selfobject functioning and a decreased structure with humans. In their Abecedarian study in the early 1970s, they intervened in the lives of 111 children in North Carolina selected from families with low income, low levels of maternal education, with mostly single, unemployed parents. These children had a low IQ (average of 80). They were enrolled in a program at a specially created childhood center by 6 months of age, a program that was all-day, 5 days a week, 50 weeks a year, and that lasted until they entered public kindergarten. Their curriculum contained 500 specified activities that focused on cognitive, motor, social and self development, and language, individualized for each child to provide an enriched environment. This Abecedarian treated group increased their IQ scores by 10 to 15 IQ points compared with a control group. Interestingly, most of the mothers of these children voluntarily sought further education, so by the time their child entered public kindergarten, 80% had some post high school education compared to

30% in a control group. The Abecedarian study was replicated a few years later by the Care Study that had 985 low birth-weight, premature infants in 9 sites. The educational treatment of these infants led to higher performance on tests of intelligence, language, and social-emotional development at 3 years of age compared with a control group.

These Abecedarian and Care studies point to an increase in dendritic growth and synaptogenesis in pre-kindergarten children. Such a conclusion is supported by the studies of the UCLA neuroscientist Robert Jacobs (Kotulak, 1997), who found that autopsied brains of mentally active university graduates had up to 40% more connective dendrites than the brains of high school dropouts. As the brains of mentally inactive university graduates also had less connections than the mentally active graduates, but more than the dropouts, they formed an in-between group. These results suggest that mental stimulation and active learning, from infancy to old age, is important for a healthy and productive life. Such a view of a self creatively engaged with its environment from the womb to the grave is further affirmed in a study of nearly 3000 older people (Bassuk, 1999) who were over 65 years of age and were interviewed in their homes in 1982, 1985, 1988, and 1994. This study demonstrated a clear relationship that connected decreasing social engagement to cognitive decline. Prolonged social disengagement (and absence of selfobject responding) was a major risk factor for the symptoms of dementia.

Kohut, who emphasized the need for selfobject experiences during the whole of the life cycle, recognized that arrested self- development led to both structural deficiencies and compensatory structures. This is a view of Kohut's theory of self-sectors, where self-organization develops in some self-sectors and not in others. Brandchaft too does not deny that lack of selfobject experiences effects structure. What he emphasizes is the reverse: structure effects whether we are able to experience selfobject functioning or not. Once initial structures are formed,

says Brandchaft, these help determine what of later experiences lead to new structuralization, a position that is consistent with a post empiricist theory of perception or in memory theory.

Brandchaft is really emphasizing the extreme filtering effect of structures of pathological accommodation once they have formed. The patient rejects anything that threatens his or her ties with a parent or substitute such as a partner or spouse and their mutual cohesive maintenance of each other, including the offer of change to a creative life through a selfobject experience with a therapist. Regrettably, a psychotherapist's attempt to be empathic with a patient whose self is organized around pathological accommodation may be experienced as an upsetting, non-empathic intrusion that, if persisted, may induce paranoia.

A major problem of a theory of psychological deficit for the treatment of self-disorders, are the beliefs that if a body is deficient in a biochemical substance, one takes a supplement. Influenced by this "script," (Tomkins, 1991, 1992) if a person is deficient in selfobject experiences, one takes a dose of selfobject experience -- as if a selfobject experience is a substance. Such a deficiency model is inadequate because selfobject functioning is not a substance given by the psychotherapist but a subjective experience of the patient. As demonstrated with the case of Mr. Z, therapeutic change does not occur because Mr. Z finds a psychotherapist who is willing and able to function as a selfobject, nor because Mr. Z gives up the cohesion-producing effect on himself of his tie to his mother, but because change occurred when Mr. Z was able to let go his imposed task of being a cohesive function for his mother.

Unlike Mr. Z, in David Helfgott's development the major source of cohesion was the dominant, intrusive father, not a fearful, possessive mother. Accordingly, David Helfgott accommodated his father's wishes and so facilitated the giving and receiving of cohesion. By

obeying his father, David made his father cohesive. By allowing his father to live his ambitions through him, and by making his father's cohesion the major organizing principle, David reinforced his own sense of cohesion, but at the price of his own creative self-development. As Brandchaft (1994) expresses it: "Reliance on borrowed cohesion creates, requires and maintains, at its core, a debased and enslaved sense of self" (p. 22).

In contrast to Brandchaft, I propose that a debased self-image arises from failed attempts to change the mutual cohesive arrangement. Any hint of the child's diminishment as a cohesive function for the parent is generally met with parental behavior designed to force the child back into accommodation. Their self-organizations crystallize from interacting with parents who excessively criticize, verbally abuse, blame, or punish and reject the development needs of the child. These parental behaviors -- costly to the child -- help retain the child as a cohesive function for the parent. As Brandchaft (1994) envisages the central motivation of the dyad, the parents' needs take priority.

The major consequence a parent's critical, punitive behavior is the child's maintenance of a debased self-image. This debased self-organization formed as a child, is experienced as feeling bad - rotten to the core, evil, when this child becomes an adult, because the debased nuclear self-organization is also made up of punitive, self-critical structures vertically split from accommodating structures. The reality of persons with a perceived evil self-organization is that of a subordinated self. As long as the self is subordinated to a significant other they feel safe; as long as they offer and receive parental "borrowed cohesion," they feel subordinated.

A key question in understanding structures of pathological accommodation is the degree to which the accommodation is total. Using the metaphor of television stations, the question is how much programming is a direct feed from the networks and how much is developed locally. With

David Helfgott, there seems to be no self-sectors outside the control of the family system until David develops a significant relationship with Rosen, his music teacher and, later, with his benefactress, Katherine Fisher. After being strictly controlled by and accommodating to his father's ambitions, David's self-organization was extremely vulnerable to fragmentation when David went to London, where he missed the active support of Rosen and Fisher, and no longer was a cohesive function for his father, especially once the musical goals implanted earlier by the father were reached, as happened after David triumphantly performed Rachmaninoff's Piano Concerto Number 3 at the Royal College of Music in London.

(c) Treatment issues

A misuse of Brandchaft's "structures of pathological accommodation" is the application of the concept to all cases involving compliant behavior. Misunderstanding occurs when the focus is on the compliant behavior rather than the structures underlying such behavior. Compliance late in development after a core self has formed, involves different coping strategies than those tapping structures of pathological accommodation of the core self. This is because later developmental compliant behavior can be an adaptive feature of peripheral self-sectors. Pressure to comply to a significant other in the earliest stages of development when core self-sectors are being formed, however, generally leads to patterns of pathological accommodation becoming the organizing principle of these innermost, core self-sectors.

The crucial issue, then, is whether the structures of accommodation are a part of the peripheral or core self-sectors. Accommodation that arises from the peripheral self-sectors may be necessary and adaptive in situations, and a positive attribute. Accommodation that is structured into the core self-sectors is usually a different matter. Accommodation may be structuralized in the

core self as a minor structure or a major organizing principle. Where it is the major organizing principle, structures of pathological accommodation are very difficult to change because such structures are clung to as a defense against disorganized psychotic-like behavior.

A frequent mistake for therapists treating patients with structures of pathological accommodation in the core self is to assume responsibility for the patient "separating" from a possessive or dominating parent. Such a therapist's response completely misunderstands the patient's sense of responsibility for keeping a parent cohesive and, more importantly, the way in which such responsibility is a key organizing principle, preventing fragmentation. Sometimes, when a patient feels pressured by a therapist to move away from such an enmeshed parent, severe regression occurs. Such cases point to the defensive value of pathological accommodation in preventing serious fragmentation, deterioration and eventual psychotic-like behavior. Psychological post-mortems with such cases point to the need to distinguish between accommodation structures in the peripheral self-sectors and those in the core self-sectors. Where patients' ties to significant others involve the accommodating structures of the peripheral self-sectors, those who take steps to distance themselves (moving out, for example) from significant others while in psychotherapy, do not usually run the risk of fragmentation.

A key to treating these patients is to accept their need to reconstruct the context in which they were raised - one in which a patient attempts to create a cohesive but enslaved sense of self with the therapist. Although such patients are capable of developing a significant bond, there is usually little if any emergence of the selfobject transferences of idealizing, mirror or twinship in the initial and middle phases of treatment. They try to establish a mutual cohesive maintenance relationship that is a form of addictive dependency.

The condition under which treatment proceeds is to first accept the patient's need for help in maintaining cohesion as their first priority. A second step involves gradually demonstrating the patient's need for cohesive maintenance by empathically investigating and gradually uncovering their various strategies and tactics for maintaining cohesion. This exploration eventually points to the strong tie that the patient has with one of the parents, whether living with them or not. It also involves exploring feelings of shame for wanting to be autonomous against their parents' wishes and to grow beyond the merger relationship. Therapeutic exploration needs to focus on fears of fragmentation should the relationship ties be broken, and particularly on fears of damaging or being responsible for killing the parent/therapist.

Psychotherapy involves doing more than is necessary to maintain a patient's cohesion. It means exploring the difference between the goals of maintaining self-cohesion by utilizing defensive, cohesive experiences, or of experiencing change from selfobject experiences that leads to increased feelings of autonomy as the patient is accepted by the therapist. These patient options are interpreted to the patient to give the patient a genuine choice.

One major therapist attitude tends to predict treatment failure with such patients. If the psychotherapist thinks the patient ought to accept the goal of growth rather than pathological accommodation, the patient experiences the therapist as repeating the intersubjective experience that initially developed the structures of pathological accommodation - the pressure to comply to another's will. This interaction around the goal of treatment, unless understood and explored, establishes a potentially ongoing addictive-like relationship for years that reinforces the structures of pathological accommodation until the therapist tires of the maintenance role, and uses some pretext to terminate. Not surprisingly, these patients leave and seek another therapist who is accepting of their mutual cohesive goals for treatment until the patient signals the wish to develop

beyond the relationship pattern established by his or her parents. Compare this situation with Gillian Helfgott. When she accepted David for what he was, quirks and all, and did not push for change, he began to come alive and to change, on his terms.

References

Adorno, T. (1950), The Authoritarian Personality. New York: Harper.

Bassuk, S., Glass, T., and Berkman, L. (1999), social disengagement and incident cognitive decline in community-dwelling elderly persons. Annals of Internal Medicine, 131:165-173.

Brandchaft, B. (1994), Structures of pathological accommodation and changes in analysis. Presented at the Association for Psychoanalytic Self Psychology. New York City.

Campbell, F. & Ramey, C. (1990), The relationship between Piagetian cognitive development mental test performance, and the academic achievement in high risk students with or without early developmental experiences. Intelligence, 14:293-308.

Gedo, J. (1981), Advances in Clinical Psychoanalysis. Hillsdale, NJ: The Analytic Press.

Green, E. & Greenough, W. (1986), Altered synaptic transmission in dentate gyrus of rats reared in complex environments: evidence from hippocampal slices maintained in vitro. J. Neurophysiology, 55:739-750.

Greenough, W., Alcantra, A., Hawrylak, N. & Anderson, B. (1992), Determinants of brain readiness for action: experiences shape more than neural form. Brain-Dysfunction, 5:129-149.

Huttenlocher, P. (1997), Regional differences in synaptogenesis in human cerebral cortex. The Journal of Comparative Neurology, 387:167-178.

---(1999), Dendritic and synaptic development in human cerebral cortex: time course and critical periods. Developmental Neuropsychology, 16(3): 347-349.

- (2002), Neural Plasticity: The Effects of Environment on the Development of the Cerebral Cortex. Boston: Harvard University Press.
- Kohut, H. (1971), The Analysis of the Self. New York: International Universities Press.
- Kohut, H. (1977), The Restoration of the Self. New York: International Universities Press.
- Kohut, H. (1979), The two analyses of Mr. Z. Internat. J. Psycho-Anal., 60:3-27.
- Kohut, H. (1984), How Does Analysis Cure? Chicago: Chicago University Press.
- Kotulak, R. (1997), Inside the Brain, Kansas City, Mo.:Andrews McMeel.
- Lee, R. (1988), The reverse selfobject experience. Amer. J. Psychotherapy. 42: 416- 424.
- (1999), The infant's experience as a selfobject. Amer. J. Psychotherapy. 53:177-187.
- Ramey, C., and Ramey, S. (2003), Preparing America's Children for Success in School. Presented to the White House Early Childhood Summit on Ready to Read, Ready to learn. Denver Colorado, May 21.
- Sirevang, A. & Greenough, W. (1988), A multivariate statistical summary of synoptic plasticity measures in rats exposed to complex, social and individual environments. Brain Research, 441:386-392.
- Tomkins, S. (1991, 1992), Affects Imagery Consciousness. Vols. 3 & 4. New York: Springer.
- A short version was presented to the 1999 Self-Psychology Conference.