

Structuralization and Psychotherapy

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The development of a patient's self-structures is a major focus in self-psychology theory for the conduct of psychotherapy. Although studies demonstrate changes induced by brief psychotherapy, it is a theory of structuralization that addresses the structures that reflect enduring change as a result of long-term psychotherapy. Such structures involve both cellular biochemistry and higher levels of brain functioning, including feelings and beliefs. Psychoanalytically, Rapaport (1960) conceives of self-structures as patterns or configurations of behaving, thinking and feeling that undergo slow rates of change (deterioration unless reinforced); nothing created is absolutely changeless. So self-structures, although relatively permanent, are not eternal. Rapaport's concept of structuralization as slowly changing patterns is demonstrated by Kandel's (2006) research into the memory of the sea slug *Aplysia Californicus*, where just touching, distressing a sea slug's gills, led to its neurons expressing increased amounts of neurotransmitters at synapses, enabling a short-term memory of the experience. Such neurotransmitter-based memory, one type of memory, is a rapidly deteriorating form of structuralization. But as Kandel also demonstrated, structuralization also can take a more enduring form.

Kandel showed that if touching the *Aplysia*'s gills persisted for long periods, the *Aplysia*'s neuronal DNA eventually switched from responding with increased amounts of neurotransmitters, to expressing a protein that grew axons and dendrites, and in turn, led to new synaptic connections ("synaptogenesis"). Based on Kandel's work, it's possible to argue that a protein-based memory of new synaptic connections underlies the concept of structuralization as a relatively slowly

deteriorating form of memory. Admittedly, it's a long evolutionary distance from structuralization in *Aplysia*'s nervous system and the experience of psychological structures in humans, but Greenough (Green and Greenough, 1986; Sirevang and Greenough, 1988; and Greenough, Alcantara, Hawrylak and Anderson, 1992) narrowed this gap by demonstrating that synaptic structuralization with rodents was experience-dependent. They raised two groups of rats in different environments, one in a group cage enriched with a variety of interesting "toys" and the other in individual cages without toys. A comparison of their neural circuits showed that those raised in an enriched environment had developed 25% more synaptic connections than those raised in a plain cage by themselves.

Both the Kandel and Greenough experiments suggest that humans have different degrees of structuralization between those raised in an enriched environment and those who were not. This structural variation in humans is supported by Huttenlocher's (1991, 1997, 1999, 2002) examination of pinhead sized samples of the dendrites and synapses of infant autopsies, using an electron microscope and the Golgi-Cox method. The implications of his research into the abnormalities in the synaptic organization of the cerebral cortex is that infants with an impoverished background have less synaptic connections, hence less structuralization, than an enriched group.

Huttenlocher's work on infant autopsies is supported by Ramey's studies into infant learning (Campbell and Ramey, 1990; Ramey and Ramey, 2003). He gives evidence that inadequate selfobject functioning early in life placed infants at an enormous disadvantage in learning and adapting to living in a modern society because they had decreased structuralization in brain areas, compared with others that had the selfobject responding. In the 1970's Ramey conducted the Abecedarian study that gave an educational treatment to 111 North Carolina children

from families of low income, low levels of maternal education, and with mostly single, unemployed parents. The children scored an IQ average of 80. After enrolling at a specially created Childhood Centre by six months of age, these children were given a corrective program, 5 days a week, 50 weeks a year, until they entered public kindergarten. Their curriculum contained 500 specified activities that focused on cognitive, motor, social skills, self-development, and language skills, that were individualized for each child in an attempt to offer an enriched environmental experience. As a result, the treated group increased their IQ scores by 10 to 15 points compared with a control group. Interestingly, most of the mothers of these children voluntarily sought further education. So when their child entered public kindergarten four years later, 80% of these mothers had some post high school education, compared to 30% in a control group. The Abecedarian study, replicated a few years later by the Care Study that gave educational treatment to 985 low-birth-weight, premature infants. This treatment 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 increased dendritic growth and synaptogenesis in the “treated” underprivileged 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 more connective dendrites than inactive university graduates and 40% more connective dendrites than the brains of high school dropouts. This study in addition to the others, suggests that mental stimulation, active learning, and adequate self-structuralization from infancy to old age, is important for healthy and productive living. Such an emphasis on structuralization in self-development as a result of a creative engagement with the environment is further affirmed in a study of nearly 3000 older people (Bassuk, 1999) over 65 years of age and interviewed in their homes in 1982, 1985, 1988, and 1994. The study

demonstrated a clear relationship between decreasing social engagement and cognitive decline; it suggests that prolonged social disengagement - an absence of selfobject responding - is a major risk factor for symptoms of dementia.

Self-psychology's interest in structuralization is on how it takes place in successful psychotherapy. Based on the Classical Freudian position of neutrality, abstinence and anonymity, Kohut (1971, 1977, 1984) thought structuralization took place through "optimal frustration." This concept was first defined (Kohut and Seitz, 1963) as delaying satisfaction, inducing disappointment and tension-increase, and developing internal structures to thwart wish fulfilling fantasies, at the same time not delaying satisfaction too long to avoid creating despair and a turning away from achievable goals. The idea of "optimal" indicated that the frustration should not be so extreme as to traumatize the patient. So Kohut (1977) says, "through the process of transmuting internalization [via optimal frustration] new psychological structure is built" (p. 32).

Since the death of Kohut, the concept of "optimal frustration" has receded to the periphery of self-psychology theory. One reason may have been that the concept vulnerable to an extreme misinterpretation to justify a psychotherapist's narcissistic countertransference by aggressively forcing change by frustrating the patient. Such deliberate frustrating of patients, however, generally lead to self-structures that don't enliven a patient. So Kohut's concept of structuralization via optimal frustration formed an incongruous conceptual island amid a sea of otherwise radical theoretical thinking. Bacal (1985; 1998) tackled this incompatibility when he convincingly argued that Kohut's theory of empathy and selfobject experiences, when thought through, call for a theory of structuralization that emphasizes optimal responsiveness, not optimal frustration.

Bacal defined optimal responsiveness "as the responsiveness of the analyst that is therapeutically most relevant at any particular moment in the context of a particular patient and his illness" (1998, p. 202). Through optimal responsiveness, Bacal adopted Kohut's emphasis that the therapeutic relationship is more the source of cure than interpretation. In line with Bacal's emphasis on "optimal responsiveness," I claim that if a patient experiences a therapist as being empathic, some form of therapeutic response has been involved. This means that empathy is not only a special form of perception where the therapist walks in the moccasins of the patient, but where this perception is tested by the patient's experiences of the therapist's response as being attuned. The concept of psychotherapist responsiveness is particularly pertinent to the idea of affect regulation. The "optimal" of optimal responsiveness, is where, as Schore indicates, the therapist helps regulate the patient's affective system so that the rate of neural firing and the presence of neurotransmitters at the synaptic cleft are in optimal range. As Kandel's work indicates, such affect regulation facilitated by optimal responsiveness may also involve the expression of dendritic growth-producing proteins.

Self-psychology's present position is that both optimal frustration and optimal responsiveness produce structuralization. Although the emphasis needs to be on Bacal's basic position of structuralization through optimal responsiveness, the question of frustration's function in structuralization cannot be completely relegated to the conceptual scrap heap. In treating severe self-disorders, a psychotherapist inevitably is unable to empathically understand a patient and frustration – involving the psychotherapist as well as the patient - occurs. Despite attempts at optimal responsiveness, distress seems to be a part of the process of new structuralization with such patients, if the distress can be alleviated to a moderate level. Any potential value of frustration for structuralization, however, in no way calls for a return to the Freudian position of neutrality, abstinence and anonymity. But if frustration is unshackled from its Freudian past and linked to

Tomkins' affective theory of distress, it may help flesh out a more serviceable theory of structuralization. The theory of therapeutic frustration becomes transformed into an affective theory of distress, for severe-self disorders, and is an inevitable part of the psychotherapeutic process for both patient and therapist.

The issue of optimal frustration or optimal responsiveness has often been posed as a choice between them, resulting in a de-emphasizing of the major therapeutic goal, which is structuralization that enables persons with arrested self-sectors to self-develop into more adaptive and joyous. The goal of a self-psychologically conducted psychotherapy, then, is not optimal frustration or optimal responsiveness, but new structuralizing that generally involves both! The goal of this optimal structuralization is associated with the development of self sectors to substitute for the deficiencies as a result of arrested development. What I hope to demonstrate is an empathically based psychotherapy, although focused more on optimal responsiveness than frustration, inevitably includes inadvertent frustration if new structuralization is to optimize a patient's self-development and adaptiveness to its environment. This is inevitable in treating patients who have severe self-disorders and will be illustrated with a case that reflects severe deprivation in early childhood. It is explored in two ways: (1) as distress in a context of optimal responsiveness, and (2) as de-idealization.

(1) Distress in a context of optimal responsiveness

Mrs A, in her early sixties, presented for "a few" sessions of psychoanalytic psychotherapy upon becoming extremely anxious. She had been born in Holland to a consciously unremembered father who was killed during WWII, and to a cold, unresponsive mother. During the war, from the ages of two until six, Mrs. A lived in Roman Catholic orphanages. To her shame, she discovered

that Mrs. A's father had collaborated with the Germans when she, her mother and siblings had their heads shaved as Nazi collaborators. Taunted by neighbours, and Mrs A. had cried her heart out.

Mrs. A had a close relationship with a brother five years older who made efforts to care for her and she experienced as a twinship selfobject. Otherwise, she grew up in squalor, even though her mother remarried and a stepfather provided some stability. With neighbors despising her family for years because of the collaboration, Mrs A felt like a community outsider, and was only able to establish a firm friendship with a girl who was ostracized as a non-catholic.

Mrs. A's mother had little energy to take interest in her, not only because of her mother's efforts to survive in an unresponsive environment, but because her mother had grown up in a deprived family with over a dozen siblings. As a result of her mother insisting that Mrs. A attend twice daily, Mrs.A hated the Roman Catholic Mass, yet she remembered positive experiences associated with a chapel where she talked to the Virgin's statue, smelled the faint residual incense, and heard nuns singing. When Mrs. A was 13 years of age, her bed-ridden, seriously mother died and she remembered that washing her mother and other nursing tasks had filled her with disgust.

Following her mother's death, Mrs. A's agreed that her newly married, older brother and his wife could share the family home with her. But her brother's persistent heavy alcohol consumption and his upsetting marital arguments, including verbal abuse and food throwing that so terrified Mrs. A she would often cower in a corner with her hands over her head and ears was this was taking place. The sister-in-law soon resented Mrs. A's presence, making her feel like an unwelcome outsider and reinforced the experience that had been a pattern in her life, even though Mrs. A's after-school earnings helped support the household. Mrs. A's misery was further compounded when her brother-in-law sexually abused her.

Mrs. A sought psychotherapy because of anxiety and distress that she experienced when relatives and friends visited from Holland visited her in Australia. On these visits she became silent and once, when she hid for four hours in a cupboard, was deemed rude. After a month of treatment Mrs. A became so distressed that she began phoning the psychotherapist in the evening after each session. The psychotherapist, trained to keep a strict “frame” and refuse such phone calls, decided to shift and respond to it from a self-psychological perspective. The phone calls, she reasoned, probably represented a clinging attachment pattern (Ainsworth, Blehar, Waters and Wall, 1978), consistent with Mrs. A's dreading the end of a session, when she would make such statements as "I wish I could keep you forever." The refusal of the therapist to allow Mrs. A to archaically merge with her, was so frustratingly distressing that she would cry, either in the session or over the telephone that evening. This behavior suggested the Mrs A had experienced no or insufficient attuned parental responses to distressful experiences as a developing child, and therefore lacked internal structures to help regulate her adult stressful experiences. So the caring responses of the psychotherapist in the sessions induced in Mrs. A cravings for long-desired touching, gazing and mirroring experiences with the therapist as a nurturing, mother-like person.

In response to Mrs. A's distress, the therapist accepted that some limited responding to Mrs. A's telephoning could help foster structuralization of Mrs A's experiences of being nourished and safe. But after several months, the therapist realized she was resenting the intrusion of these post-session telephone calls into her life, especially when they gradually became longer and seemed to increase Mrs. A's frustration and distress rather than contain it. The therapist's allowing of telephone calls from Mrs. A was producing neither optimal responsiveness nor optimal frustration. The psychotherapist now found that if she complied with the patient's calls, the patient's distress increased, but if she refused these requests for symbols of caring, the patient threatened suicide.

After a professional consultation, the psychotherapist explained to Mrs. A that the therapeutic relationship was exacerbating her longings for a concerned, caring mother, unfulfilled longings that Mrs. A had experienced as an infant.

To minimize her own resentment, the therapist decided to legitimize Mrs. A's phone calls, thereby making them part of the psychoanalytic psychotherapy rather than as an extra-therapeutic contact, experienced shamefully by the patient as something stolen, and shameful to the therapist as a weakness in allowing it. In the next session, the therapist indicated she thought Mrs A's phone calls were an important part of the psychotherapy but, as their major value was the contact itself, they should be kept brief. Mrs. A, relieved of a tangible sign that her telephoning was accepted, settled down in the months that followed and brief post-session calls in the evening became a pattern at the beginning of the middle phase of psychotherapy.

In addition to the follow-up contact phone calls, Mrs. A would sit, not in the chair opposite the therapist, but in one alongside her. From there she would touch the therapist's arm and sometimes hold her hand. In a session soon after the therapist agreed that limited phone calls as a recognized part of the psychotherapy, Mrs. A said, "I never want to sit in the other chair. I always want to sit as close as possible next to you." She then announced that she hoped her husband (who paid for the sessions) "would allow her to come for sessions for a long time." The patient's behavior, however, made the therapist uncomfortable. Based on her former "neutral, abstinent" model, the therapist questioned herself about the wisdom of permitting the extra phone calls and the touching.

After a further consultation, the therapist recognized that Mrs. A had developed a strong idealization of her, concretized by the patient's sitting close, holding hands, looking deeply into the

therapist's eyes, verbalizing that she loved the therapist, and by bringing simple gifts such as fruit or vegetables from her garden. The therapist also acknowledged to the consultant that it was sometimes difficult to sustain her acceptance of the patient's behavior, as she felt exhausted from being the all-giving carer, yet understanding that accepting this idealization could be the basis of eventual therapeutic change.

By the fortieth session the therapist had learned to respond to Mrs. A's expressed needs by complying with most of Mrs A's wishes, but not all. When, for example, the patient once wanted to turn the brief post session telephone call into a full session, the psychotherapist refused by saying she had other commitments. When Mrs. A, in response, started to beg for more time, the psychotherapist insisted that the matter be continued in the next session. But after she hung up the phone, the therapist wondered if her attempts at optimal responding were helping the patient and asked if she was merely gratifying the patient and developing addictive-like behavior and addictive self-structures? Then she realized that her allowing the brief extra-therapeutic phone call offered the patient both responsiveness to and frustration. She reasoned that as both responsiveness and frustration are experiences in the normal development of children, it was most likely that structuralization, which is more likely to result in limited self-development, comes from either a totally responsive or completely frustrating, but not both. As the psychotherapist both responded to the patient, but with limitations, she began to see changes in Mrs. A's behavior. For example, Mrs. A began to miss some of her after-therapy phone calls. Despite these structural changes in Mrs. A's behavior, the psychotherapist realized she had become skeptical about Mrs. A making sufficient structural change to repair the deficiencies of her deprived and abused childhood.

With these thoughts in mind, the psychotherapist realized that Mrs. A was having new experiences that were opening up a freer, more exploratory life-style. After nearly sixty years of

hoping, the very novelty of this experience was over-stimulating Mrs A's interests and hence, over-stimulating her sympathetic autonomic nervous system, and exhausting her during some sessions. This is revealed when Mrs. A said, "I love you so much. I love being here in this room. I told [my husband] that when I'm here my feelings are intense and powerful and are sometimes so intense I wished it had never started."

After several months further, the psychotherapist saw Mrs. A's tolerance of being absent from her, as evidence of further structuralization. But because the patient continued to express strong idealizing needs, the psychotherapist still questioned whether the new structures would ever be capable of filling in the deficiencies in self-structure left from Mrs. A's infancy. Would the new structures being developed in the psychotherapy ever be enough, or would Mrs. A be dependent on the psychotherapist for the rest of her life, despite the gaining of some new structures? In analyzing her own feelings, the psychotherapist realized that she was somewhat despairing because of Mrs. A's extremely needy behavior. The therapist then conjectured Mrs. A's belief that only if the hole of her structural deficit was filled would she be happy and, because this was not happening fast enough, had feelings of despair. After this realization, the psychotherapist shifted her treatment strategy. She modified her previously unconscious goal of filling in the structural hole through empathic responsiveness, and accepted that Mrs. A's structuralization of new experiences in psychoanalytic psychotherapy would never more than partially meet the longings for the nurturing mother her deprived upbringing never gave her. The therapist became convinced that even if she supplied an inexhaustible amount of psychological goodies, these would never be enough for Mrs A. Most importantly, the psychotherapist realized that Mrs. A needed to grieve and let go of the idealized mother she had conjured up to compensate for the mother that she had had, as well as develop new structures. Finding such an idealized mother was not only an impossibility, but a major source of excessive frustration. Relief of her frustration would depend on resolve her

longing for the idealized compensatory mother. Until this grieving (letting go) of the idealized mother, her frustrations would remain excessive.

As the psychotherapist prepared to take a two-week Christmas vacation, she invited Mrs. A to share her feelings about being abandoned. Mrs. A first associated to having her tonsils removed when five years of age and then seeing her mother walking along a road. Of this memory she said, "I couldn't call out. The truck I traveled in was going too fast. She would not have heard me, and no one knew she was my mother." The psychotherapist thought that Mrs. A was communicating how helpless she felt to reach out to her cold, unresponsive, and unreachable mother, and if she hesitated to respond, or withdrew from responding to Mrs A's need for expressions of intimacy, she was experienced as the cold, unresponsive mother.

Separations distressed Mrs A. A visiting daughter's return to her home after being overseas stirred up memories of five visits by relatives from Holland, which had distressed Mrs A. She was also distressed that the psychotherapist's genuine interest in her did not twin the intensity with which she loved the psychotherapist. She was disappointed that the therapist did not meet the expectations of the idealized mother. She particularly wanted the relationship to be symmetrical, and it wasn't. In one session, for example, after Mrs. A expressed how much she loved the psychotherapist, and when there was not a matching response from the psychotherapist, Mrs. A said, "sometimes, I think I beg you to love me....Do you?" When the psychotherapist replied that she was heavily invested in the relationship and cared about her, Mrs. A became distressed and cried softly for a few minutes. The psychotherapist then interpreted that, arising from early childhood deprivation, Mrs. A had developed such an idealized mother image, that every potential mother substitute was going to disappoint her. Silence followed as the interpretation was absorbed. At this point the therapist recognized Mrs. A's internalized, compensatory idealized mother was a

major source of her frustration. To the extent that the psychotherapy was successful, Mrs. A's idealized mother would need to be "shrunk."

Psychoanalytic psychotherapy with Mrs. A raises the question of whether structuralization comes from both responsiveness and distress in a new way. Although optimal responsiveness leading to new experiences is often sufficient to develop self-structures in milder self-disorders to overcome the deficiencies of early infancy, new experiences by themselves, for many, may never completely fill holes left from lack of structural development; the hole also needs to shrink. One way the shrinking takes place is from the reduction of a need for a compensatory idealized mother or father.

The patient's experience of distress in the context of optimal responsiveness is different from optimal frustration. Optimal responsiveness makes a difference because the psychotherapist, as selfobject, helps generate new experiences that increase a patient's tolerance of the distress associated with unfinished grief work. This is a different patient experience from one where a psychotherapist focuses on frustration alone. Inducing frustration by strictly adhering to neutrality, abstinence and anonymity does not lead to healthy new structures in severe disorders of the self, in fact, is iatrogenic where there is a hunger for selfobject responsiveness.

A key feature to incorporating the split off, distressed experience of Mrs. A as a child is the selfobject function of her therapist as Mrs. A grieves, not so much for the mother she had, but for the idealized mother she wished she had had. It is not frustrations themselves that foster new self-structuralization, but the experience of the patient sharing the distress and having this distress accepted by a responsive selfobject. It is not the loss of the object that enhances structuralization,

but soothing selfobject experiences associated with object loss that produces the most adaptive, new self-structures.

2. De-idealization

Cases such as Mrs. A raise questions about the experience mothering or fathering missed in infancy or childhood. Framing the question this way, however, does not recognize that the mothering or fathering experiences sought later in life have already been heavily influenced by the idealized longings of the earlier absences of attuned parental responses, especially the mother's. These idealized images are self-generated as a means of self-repair during early childhood to minimize the extent of self-fragmentation that accompanies emotional deprivation. This urge to repair through compensatory ideals kicks in when self-fragmentation begins to occur.

Kohut has extensively covered the concept of idealization. The idea that idealizing selfobject transferences not only occur, but also can be used to bring about structural growth, has been well established in self-psychologically conducted psychoanalytic psychotherapy. Kohut, further, has shown that a successful resolution of the idealizing transference leads to a strengthening of a patient's self-ideals. All these insights have as their background the idea that infants may develop ideals to compensate for the deficiencies in their experiences of contextual misattunement. Kohut (1978a) says, for example that "The baby's psychic organization attempts to deal with the disturbances by building up new systems of perfection" (p. 430). These compensatory wishes - and the strategies that go with them - are aspects of narcissism. And as narcissism is Kohut's term for the processes that help maintain self-cohesion, archaic ideals serve to maintain self-cohesion. Once selfobject experiences help form new cohesive structures, such an archaic ideal is no longer necessary.

In linking the concept of optimal structuralization to include grieving and reduce the need for compensatory ideals, psychotherapist do not need to deliberately make mistakes, as a means of encouraging de-idealization and a shrinking of the structural gap. The cutting edge of psychotherapy with difficult self-disordered patients comes from using counter-transference feelings to firmly maintain the psychotherapist's core self-cohesiveness. When the psychotherapist refuses to surrender his/her legitimate self-needs, a model is offered that the patient can use. In the psychotherapist's gentle but firm self-assertion of needs for privacy and processes that nourish the therapist such as vacations, he or she fosters, through identification, a firm patient self-structure that eventually helps the patient function more adequately.

The goal of psychotherapy then is optimal structuralization. Optimal structuralization goes further than either optimal responsiveness or optimal frustration, because it involves both. The patient is then able to identify with the non-self-sacrificing sectors of the psychotherapist and modify what had been held as a compensatory ideal. Such a process of replacement using archaic patient identifications with the psychotherapist leads to a firmer, less addicted, patient self-organization. Optimal structuralization can be blocked through the retention of archaic compensatory ideals. Until these compensatory ideals are recognized and modified, optimal structuralization is unlikely to occur. For structuralization to be effective in severe self-disorders, de-idealization is an essential part of the therapeutic process.

References

- Ainsworth, M., Blehar, M., Waters, E., and Wall, S. (1978), Patterns of Attachment: A Psychological Study of the Strange Situation. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Bacal, H. (1985), Optimal responsiveness and the therapeutic process. In: Progress in Self Psychology, Vol. 1, ed. A. Goldberg. New York: Guilford Press, pp. 202-226.
- Bacal, H. (1998), Optimal Responsiveness: How Therapists Heal Their Patients. Northvale NJ: Aronson.
- Bassuk, (1999)
- 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.
- 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. (1991), Dendritic and synaptic pathology in mental retardation. Pediatric Neurology, 7(2): 79-85
- (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.

- Kandel, E. (2006), In Search of Memory: The Emergence of the Science of the Mind. New York: Norton.
- Kohut, H. & Seitz, P. (1963), Concepts and theories of psychoanalysis. In: Search for the Self: Selected Writings of Heinz Kohut: 1950-1978, Vol. 1, ed. P. Ornstein. New York: International Universities Press, 1978, pp. 337-374.
- Kohut, H. (1966), Forms and transformations of narcissism. In: Search for the Self: Selected Writings of Heinz Kohut: 1950-1978, Vol. 1, ed. P. Ornstein. New York: International Universities Press, 1978, pp. 427-460.
- Kohut, H. (1971), Analysis of the Self. New York: International Universities Press.
- Kohut, H. (1977), Restoration of the Self. New York: International Universities Press.
- (1978a),
- Kohut, H. (1984), How Does Analysis Cure? Chicago: Chicago Universities Press.
- Kotulak, R. (1997), Inside the Brain, Kansas City, Mo.:Andrews McMeel
- Lee, R. (1999), Empathy and affects: Towards an Intersubjective view. Aust. J. Psychother. 17: ½, pp. 126-149.
- 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.
- Rapaport, D. (1959), The structure of psychoanalytic theory: A systematizing attempt. Psychological Issues, Monogr. #6. New York: International Universities Press. 1960
- 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.
- Rapaport, D. (1959), The structure of psychoanalytic theory: A systematizing attempt. Psycholog. Issues. Monogr. #6. New York:International Universities Press. 1960

Schore, A. (1994), Affect Regulation and the Origin of the Self. Hillsdale, NJ: Lawrence Erlbaum Associates.

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