Teaching the Art of Empathic Interviewing to Third-Year Medical Students using a Fairy Tale—"The Prince Who Turned into a Rooster"

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Can empathy be taught? How can we protect the embryonic forms of empathy germinating in our medical students? Can we immunize them against the ravages to their humanism, astutely observed to occur by Henry Silver, Dean of the University of Colorado in 1982, when he published his clear-sighted commentary, Medical Students and Medical School (Silver, 1982; Krugman, 2008). Although studies show that empathy is damaged during medical school, the author proposes that empathic growth through medical school might be possible if enlightened teaching methods are implemented by governing boards, such as the Association of American Medical Colleges (AAMC), The Liaison Committee on Medical Education (LCME), and the Accreditation Council for Graduate Medical Education (ACGME). The author shares a novel teaching method adapted from a technique used by child psychiatrists, storytelling.

CAN EMPATHY BE TAUGHT TO MEDICAL STUDENTS?

Can we teach empathy to medical students while they are learning to conduct an interview?

One of the qualities a mature physician must possess is the capacity for empathy. The capacity for empathy is a sign of psychological health and it is well known that a lack of empathy is pathognomonic for narcissism. How can empathy be developed in medical students when their capacity for it is believed to be deeply rooted in early childhood development and has been thought to be "hard wired" into character

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before age three? (Steele, 1983; Blair, 1997; Reich, A. 1954, Schore, 1991, Stern, 1985; Fonagy, Gergely, Jurist, Target, 2004; Kohut, 1971, 1977; Mahler, 1974; Beebe, Lachman 1988; Piaget, 1932).

Is it possible for medical educators to challenge early developmental failures through an enlightened medical education?

"Achieving an appropriate level of empathy is one of the major psychological tasks of medical training" (Marcus, 1999a p. 192). Given this, it is of great concern that a recent empirical study by Hojat, et al. (2004) measured changes in empathy during medical school and statistically significant declines in empathic ability were observed, signifying a downward trend.

Therefore, I wonder: how can we protect the embryonic forms of empathy germinating in our medical students? How can we immunize them against the ravages to their humanism, astutely observed to occur by Henry Silver, Dean of the University of Colorado in 1982, when he wrote his clear–sighted commentary, "Medical Students and Medical School" (Silver, 1982; Silver, Glicken, 1990; Krugman, 2008).

I propose that it is possible to teach empathy to medical students based on the following few premises. We do know that brain growth and learning are indeed possible throughout the lifespan due to neuroplasticity² (Doidge, 2007), and many thousands of illuminating studies can be found that illustrate that the brain is not hard wired as had been previously believed. (Doidge, 2007; Wiesel, Hubel, 1963; Wiesel, Hubel 1970; Kemperman, 1997; Merzenich, 1999, 2001, Davidson, 2005; Schwartz, Begeley, 2002)

² Research has shown that conditions previously thought to be immutable may be healed through stimulating neuronal growth in focal regions of the brain. Merzenich (1999) has developed brain exercises that target specific areas, and have been shown to change the topographical maps in the brain (Doidge, 2007; Xerri 1994). Schwartz and Begeley (2002) have applied neuroplastic concepts to

healing Obsessive Compulsive Disorder.

¹ The capacity for empathy is thought to be determined before age three, when the punitive aspects of the superego and later the ego ideal form based on introjected qualities of the caregivers. This occurs during the pre–Oedipal and Oedipal period. The superego is the overall umbrella containing both punitive aspects and ego ideal and becomes solidified around age five. Developmental theorists believe there are various contributions to the origins of empathy: 1) based on the successful formation of the ego ideal and the superego (Steele, 1983 p 241–242; Blair, 1997; Reich, 1954; Shore, 1991), 2) it is dependent on secure attachment in infancy (Fonagy, et. al., 2004), 3) is dependent on core intersubjective experience in infancy (Stern, 1985), 4) is related to a successful rapproachement subphase (Mahler, 1974), 5) is related to affective attunement by caregiver (Kohut, 1971,1977; Beebe, Lachman 1988), and 6) due to cognitive growth evolving out of egocentricity (Piaget, 1932. 1954). Although Nobel laureates David Hubel and Torsten Weisel (1963, 1980) discovered neuroplasticity through their experiments with visual cortex development in kittens, they did not relinquish the idea that the brain is hard wired by the end of infancy until many years later.

We also know that a specific type of neuron, the mirror neuron³ is associated with empathy (Ramachandran, Oberman, 2006; Rizzolati, Craighero, 2004; Rizzolati, Fogassi, Gallese, 2006). It is logical then to hypothesize that the concept of neuroplasticity can also be applied to mirror neurons and consequently, to empathic growth throughout life.

Therefore, it is not far fetched to propose that an increased capacity for empathic connection can be nurtured and cultivated in grown up medical students undergoing a transformative process as they become physicians. Perhaps medical education can become a "corrective emotional experience" (Alexander, French 1946, pp. 66-70; Yalom, 1975, pp. 7-9; 25) rather than an experience of shutting down.

WHY I USE A STORY

In teaching third–year medical students, I use a fairy tale to demonstrate how empathy might be helpful when interviewing a psychotic patient. In his classic book, *The Uses of Enchantment*, Bettleheim (1975, p. 57) says, "By enchanting us, fairy tales make us feel safe, even while addressing our deepest fears and conflicts." Because children are developmentally incapable of articulating unbearable feelings (Klein, 1932; Winnicott, 1965), child psychiatrists use symbolic play (Piaget, 1954) to communicate with children in the language of their own developmental stage⁵. Stories are used as a nonthreatening, indirect, and symbolic form of communication, and since stories are "make believe," a child may more easily express wished for, forbidden, or disavowed feelings with less conflict. (Yanof 2005)

Long before Melanie Klein (1955) and D.W. Winnicott (1972, 1975) began using symbolic play (Piaget, 1954) to communicate with children, intuitive parents used storytelling to soothe a child's most terrifying fears. As a child psychiatrist, schooled in the art of using stories to communicate with children (Canino, 1992 [personal communication]; Gardner, 1968; Kestenbaum, 1985, 1983; Winnicott, 1965), it was second nature for me to

³ Kandel (2000, p. 866) has localized empathic responses to the lateral orbitofrontal circuit of the basal ganglia. Ramachandran and Oberman (2006) indicate that mirror neurons are found in the inferior frontal gyrus, the angular gyrus, the insular cortex, and the anterior cingulate cortex.

⁵ As a means of eliciting stories from children, Gardner (1968) devised the mutual storytelling technique, Winnicott (1975) developed the "squiggle game" and Kestenbaum (1985) combined the

mutual storytelling with the "squiggle" game.

⁴ The concept of the "corrective emotional experience" is borrowed here from psychoanalysis (Alexander, French 1946; Yalom, 1975). An example of a corrective emotional experience applied to medical education is "empathic mentoring" (Marcus 1999, p. 193), which is analogous to a therapeutic alliance that repairs the traumatic influence of a patient's previous experience with a new supportive experience.

Figure 1

"IMAGINE" MOSAIC IN CENTRAL PARK, N.Y., A GIFT FROM THE CITY OF NAPLES AS A TRIBUTE TO JOHN LENNON. PHOTOGRAPHED BY SARA CEDAR MILLER, USED WITH PERMISSION OF THE CENTRAL PARK CONSERVANCY.



adapt the technique of storytelling to teaching medical students. Although medical students are not children, people of all ages enjoy stories. And, with rare exceptions, medical students are burdened with anxieties related to medical school that are not usually addressed through medical school curriculum at this time in history (Marcus, 1999a, 1999b, 2003a; MacCaulay, Mellman, Quest, Nichols, Haddad, & Puchner, 2007; Beresin, 2004; Novak, Epstein, & Paulsen, 1999). These anxieties might be addressed in symbolic form, through stories.

In traditional cultures, the capacity for mature functioning is cultivated through stories or teaching tales. Stories are more personal than textbooks and are more imaginative than vignettes. In an effort to send a worthwhile message to the rotating medical students, whom I may see only three times, I have recollected Albert Einstein's admonition:

"Imagination is more important than knowledge."
(Albert Einstein, in Viereck, 1929 [Figure 1])

Imagination may be more important than knowledge in a variety of ways, but here in teaching, imaginative stories may imprint upon the primary processes of the medical student's unconscious mind. Usually,

medical students are bombarded with knowledge and information but are not encouraged to use their imaginations in solving clinical problems or when treating the most difficult cases. Using an imaginative story sends a most important message to all medical students, not just future psychiatrists.

In summary, the premise of this paper rests on the possibility that empathic connection with patients might be cultivated in medical students, based on the proposal that new neuronal connections in the brain might be made through the use of a teaching tale that stimulates the imagination and makes it's impression on the unconscious mind.

INTRODUCTION TO THE STORY

"The Prince Who Turned into a Rooster" is a teaching tale which is a wonderful introduction to interviewing. The story demonstrates how empathy might be helpful when communicating with a most unusual patient: a prince who believes he is a rooster! After the story, which follows, I'll explain how the medical student might internalize this tale, and then I'll explain how this story exemplifies many interviewing and treatment metaphors which are universally used by all physicians. Sixteen archetypal steps applicable to the healing of almost any illness have been extracted from the text of the story. They are outlined for the reader towards the end of this manuscript.

THE PRINCE WHO TURNED INTO A ROOSTER

Once upon a time, there was a king and queen who had an only son who they loved dearly. The king engaged the wisest teachers to instruct his son in laws and customs. He was taught several languages. The prince was also an athlete. Few could equal his riding and fencing. He played the violin and loved music. He was encouraged to travel and see the world. He was a very cultured and accomplished young man with whom it was a pleasure to converse and who was loved by all.

The king would consult the prince on matters of state. He knew he could rely on his sound common sense. He was happy to think that his son would one day be a worthy successor and that he would rule the kingdom after him with justice and with mercy.

The prince commanded his father's armies and won many victories. After one lengthy campaign, however, he returned home and complained of feeling unwell. He acted very irrationally. He was not violent, but he behaved as if he was a rooster. He stopped speaking. Instead he crowed, "Cock—a—doodle—doo." He refused to dress or sit at the table but lay on the floor and ate only corn.

The king summoned all the physicians in the land, but they could not help. Healers were brought in from other countries, but they too, could find no cure. Even soothsayers and magicians were invited. They cast spells, prescribed amulets, and uttered incantations, but they were of no use.

The royal parents were desperate. The prince had to be kept in a heavily guarded room, and his parents had almost given up hope of seeing their son take his rightful place.

One day an old man approached the king and said, "I may be able to cure your son."

"What are your remedies, your medicines?" asked the king.

"I have none with me," replied the old man. "But let me stay with your son for seven days, and I will cure him!"

When the old man was let into the room, he found the prince almost naked, crawling on the floor. The old man then took off his own clothes.

"Who are you?" whispered the prince. "Why are you lying on the floor?"

"I, too, am a rooster," the old man assured him. "I have come to join you. Roosters should keep together."

"I am so glad you have come," said the prince. "I felt rather lonely, shut in one room all by myself. I am delighted to have a companion now."

The following day, having gained the prince's confidence, the old man stood up and started to walk about like a human being. The prince followed suit.

On the day after that, the old man sat down at the table and ate his food from a plate, using a knife and fork.

"Even a rooster can eat normally," he justified his action to the prince.

The next day, the old man lay down on a bed. "Even though I am a rooster, there is no reason I should be uncomfortable and sleep on the floor." He then started discussing with the prince matters of state and the economic and social problems facing the country. "Roosters, too, can think and talk."

On the seventh day the old man said to the prince, "You know, a rooster's life is always in danger. He is constantly exposed to the hunter, who kills him without mercy. He is so defenseless. You should, like me, pretend that you are a human being, and then you will come to no harm."

The old man then took his leave of the prince and his family. The prince was now completely cured and was able to resume his princely role. In due course, he succeeded his father and ruled the kingdom both fairly and wisely. In his heart of hearts, however, he still thought himself a rooster pretending to be a human.

(Author unknown, from Rabinowicz, Rabinowicz, & Rabinowicz, 1993, pp. 249-255. Used with permission, Rowman & Littlefield Publishers. Inc.)

SUMMARY OF THE TEACHING TALE

In the story, a prince goes to war and like many soldiers, he is traumatized by what he has seen. When he comes home, he exhibits bizarre behavior and he is delusional; he believes he is a rooster and he can no longer adapt to his former reality. In the story, no one can reach the prince. He feels alienated, like many veterans coming home with a severe posttraumatic stress syndrome, after having witnessed horrific scenes and having become survivors of extreme trauma. None of the most renowned physicians in the kingdom can help the prince. But an unknown old man is able to heal the prince from his malady.

How the Medical Student May Internalize the Story The medical student will first identify with the admirable prince

The Prince is characterized as a renaissance man, cultivated and accomplished. He has so many wonderful qualities: he is highly educated, well traveled, a linguist, a musician, a fine athlete. And, he is a brave military leader who is also charming and loved by all. Many medical students, multitalented, may identify with this admirable prince, and if not, may aspire to be like him. He uses mature coping mechanisms (Vaillant, 1992; Freud, A., 1937), such as the ability to suppress his fear as evidenced by his bravery, to sublimate through his music, and he is altruistic and wise as evidenced by his ability to advise his father, the King, in all matters.

The medical student may subsequently feel estrangement from the crazy character

The admirable character goes to war and experiences a traumatic derealization. He returns home with very strange behavior. He has lost his ability to sublimate and suppress, and he regresses to a primitive identification with a domestic farm animal. That is, he has a bizarre delusion and acts as if he is a rooster. The once-brave prince is practically defenseless, lying on the floor. Do you think the medical students will identify with this regressive transformation? Doubtful.

Since I usually teach interviewing to medical students at a day hospital for psychotic adolescents, I find the story a good preparation for seeing a patient who may act bizarrely, a.k.a. psychotic. It is important for the medical students to develop an empathic approach towards the most severely ill patients. Most medical students were successful and well–adapted undergraduates, and they may not be accustomed to strange behavior. The message is that they must treat these patients with respect, no matter how bizarrely they behave.

The medical student may feel disappointed with the renowned physicians in the kingdom

Neither the renowned physicians with their traditional therapeutics nor the magicians with their magic can help the prince. Therefore, the king must resort to an *unexpected approach* in solving this strange problem. He must think "outside the box." I remind the medical students that when solving a difficult problem: "Imagination is more important than knowledge" (Albert Einstein, in Viereck, 1929).

The medical student may now identify with the character of a true healer

It is interesting the way the story depicts the successful healer. He is an old man, a worn out, unthreatening and unidentifiable character to the imaginations of both the medical students and the prince. He is non-threatening because he is unknown, and he holds no pretension in dress or manner. With this example, the student can begin to identify with a healer who is abstemious rather than self–promoting or self–aggrandizing. The medical students may understand that modeling themselves after his unaffected manner will make it easier for patients to talk to them. And the old man is like a physician whose most potent tool may be using his "true self." (Kohut, 1971; Winnicott, 1960, 1972; Miller, 1979)

The medical student may learn about empathic identification and mirroring as healing devices

The old man *literally* puts himself in the prince's shoes *not just by imagining*, but also by acting like he too is a rooster! The *empathic identification* occurs through *mirroring* (Kohut, 1978) or *mimicking* (Goleman, 2006). The old man takes off his clothes and lies on the floor, pretending that he, too, is a rooster. This sort of mimicking is an example for medical students, whom I am not encouraging to behave psychotically, but they may learn to become aware of expressing empathy and forming attachment through mimicking facial expressions and body language, like many birds and primates (Wilson, 1975; Goodall, 1988, 1996; Goleman, 2006).

The medical student learns about authenticity

I find it helpful to ask the students if they think the story suggests a physician should get naked to make a patient feel more comfortable. This question frequently elicits laughter! The idea that a physician could take off his/her clothes appears to be an outright boundary violation (Gruenberg, 2001, Gabbard, Lester 2003), so this is an optimal time to discuss the essentiality of boundaries and limits in all our work. I usually do find however, that although many medical students say they feel poetically

deprived, most are not yet "poetically-repressed," and if by some misfortune they have lost their poetic natures, I encourage them to take ownership of their *birthright to imagination*. Medical students who have reached the stage of formal operations (Piaget, 1947) understand that when the old man takes off his clothes, his nakedness is a metaphor for authenticity, "the something more" that makes therapy work. (Stern 1998)

The medical student may observe a master establishing boundaries

The old man establishes his boundaries masterfully because they are implicit. He is abstinent (Freud, 1915), uses therapeutic neutrality, works in a safe place (Havens, 1989) where confidentiality (Hartman, 2001) is honored as suggested by the "locked room." We may follow the example of this master, setting boundaries with our demeanor. And as always, the safety of boundaries allows alchemy to take place. The subject of setting limits when a patient acts out is a separate topic well covered by other authors, such as Kernberg (1968). The prince is not "acting out."

The story helps the medical student understand the symbolic meaning of strange behavior

To help the medical students understand how to empathize with something as strange as a rooster, I ask them what their associations are with the rooster: "cocky," "crows loudly," "alpha male," and "a rooster is vulnerable, can be slaughtered easily by men," are examples of their associations. If I am in a bold mood, I will summarize by saying that our protagonist has gone from being a cocksure prince to a vulnerable cock.

The medical student learns how to address the loneliness inherent to strange behavior

The old man relieves the prince's loneliness by telling the prince he too is a rooster. The medical students may privately think, "What physician in his right mind would tell a patient he also feels like a rooster?" In all likelihood, the first instinct of an untrained person is to say: "No, you are not a rooster. You are a man. Now stand up and stop behaving foolishly." But, instead of objectifying the odd behavior or being pejorative, the old man kindly empathizes with how the prince feels "different." In this way he relieves the prince's alienation and immediately creates an alliance where all others have failed. The next day there is therapeutic improvement. The prince stands up, now in reverse, *minicking* the old man. Through an empathic identification the old man has relieved the loneliness

⁶ The expression "poetically repressed" is an analogue to the old saying "sexually repressed."

that the prince clearly experienced at war, suffering extremes of trauma, all alone.

The medical students learn to differentiate a folie a deux from "suspension of disbelief"

The students ask, "Is the the old man engaging in a *folie a deux*?" This excellent question provokes an interesting discussion. And in response I ask "What is the 'willing suspension of disbelief'?"

The willing "suspension of disbelief" (Coleridge, 1798, p. 312; Kestenbaum, 1985) is a creative approach used by poetically inspired physicians. These poet–physicians use their imaginations with the utmost discrimination while having both feet grounded in hard reality. A poet–physican will assess the patient's capacity to tolerate "make believe" so as not to frighten a patient. Playing "make believe" is clearly inappropriate in the treatment of a patient who has lost complete contact with reality. But the prince does not seem frightened, and he feels safe with the kind playfulness of the old man.

The medical students debate the difference between a therapeutically aimed, volitional suspension of reality (a technique of child psychiatrists), versus sharing a non-volitional delusion with a patient. We conclude that when the old man pretends he is a rooster, he "willingly suspends disbelief."

Although they are beginners, I encourage medical students to be compassionately attentive to anything a patient conveys about his/her delusion because it has a hidden meaning that can be deconstructed at an appropriate time (Marcus, 2003b, pp. 273–274, 314).

The medical student learns about rapport, therapeutic alliance and establishing trust

The old man creates a trusting atmosphere when he does not balk at the prince's behavior. Instead he suggests they form a team. "Roosters should stay together," he says. In this way, a rapport of roosters is created and the therapeutic alliance (Bordin, 1979) has formed through mimicry (Goleman, 2006).

The medical student learns how mirroring may heal the patient

After the alliance is formed, the prince mirrors back the old man in return. And through this mimicking alliance the old man teaches the prince to "fake it," that is, to "pretend he is a human" although he feels very scared. He must stand up, compose himself, take one step at a time and walk forward into a new reality, leaving the trauma behind. He teaches

the prince, much as psychiatrists do with their traumatized patients who have to go back to their normal responsibilities in life.

Medical students may wonder why the traumatic feeling never resolves entirely: They ask "Why does the prince still secretly believe he is a rooster?"

The prince recovers with new self–awareness and he ascends to the throne. But the trauma has imprinted itself upon the parenchyma of his brain, and there will always remain a subconscious memory of the feeling he had when he returned from war. He may have recurrent dreams (Herman, 1992; Van Der Kolk, Blitz, Burr, Sherry, Hartman, 1984). However, and in distinct contrast, he also recollects the old man. The prince has had a corrective emotional experience (Alexander, French, 1946; Alexander 1954) and the resiliency (Luthar, Cicchetti, & Becker, 2000) of his earlier life reemerges. Based on our understanding of neuroplasticity, it might be expected that new neuronal synaptic connections will form in the prince's brain (Doidge 2007). There is great hope for the prince!

HOW I USE THE FAIRY TALE IN TEACHING

Copies of the story are handed out to a small group (3 to 4) of medical students before they interview their first psychotic patient. We take turns reading paragraphs of the story out loud. Reading together bonds the group as we share the experience of the story.

When we finish reading, I begin to ask questions based on the previous section, "How the Medical Student may Internalize the Story." I make it clear to the students that I'd like them to give their impressions and associations, and I try to make sure they understand that there is no right answer to each question. I specifically say, "This is not a test and you will not be graded on your responses. I want you to learn something from these questions (The Wheatley School, 1966-1971, personal communication)."

Because the students understand that there is no one exact answer, I believe they feel less constrained, and a lively discussion ensues with both playful and thought–provoking responses. I ask the students how they might apply the lesson to their upcoming interview with a psychotic adolescent patient. Before we proceed to the interview, we review the 16 archetypal steps (which follow). I ask students to write down any further ideas or questions and to bring them to the next meeting.

This Teaching Tale is a Metaphor for 16 Archetypal Steps in the Healing of Most Illnesses

"The Prince Who Turned into a Rooster" is a metaphorical healing tale that identifies 16 archetypal steps in healing of almost any illness. Although the 16 archetypal steps have never been described in literature as far as I know, I have discovered these steps hidden within the text of the story and they are exemplified through the interactions between the old man and the prince. The 16 archetypal steps are relevant to *all* clinicians, not just future psychiatrists, and they can be integrated into any healing protocol. To achieve success, a physician must be *patient* and go step—by—step, like the old man in the story.

16 ARCHETYPAL STEPS

1. ACKNOWLEDGE THE UNIVERSALITY OF SUFFERING.

When the old man says he also is a rooster he relieves loneliness by acknowledging the universality of suffering (Yalom, 1975). The healer uses empathy and mirroring to do this, rather than by objectifying the patient as "sick" or "weird."

2. BE AUTHENTIC.

When the old man takes off his clothes, his nakedness symbolically represents his authenticity. Authenticity is qualitatively distinct from a charming bedside manner.

3. Speak to your patient in his own language, even if it seems odd.

Try to understand the patient's symbolic language, even if it seems difficult.

4. ESTABLISH BOUNDARIES USING YOUR DEMEANOR.

Boundaries may be established masterfully when implicit. We can be firm without being harsh.

5. BE PLAYFUL AND BE WILLING TO "SUSPEND DISBELIEF" WHEN APPROPRIATE.

The spirit of playfulness induces a feeling of magical possibility and hope!

6. ENCOURAGE YOUR PATIENT TO "GET UP."

The patient models himself after the healer and stands up. "Getting up" is symbolic of the reversal of regression (Goodman, S., personal communication, 11.17.1975). The patient is able to mimic the healer through processes of identification and incorporation (Freud, 1937; Vaillant, 1992).

7. Provide and accept warmth and protection.

When the prince agrees to accept clothes, this signifies the re-beginnings of self-care essential to recovery after severe trauma. Improved grooming and hygiene are implied.

8. Provide and accept nurturance, structure, and support.

When the old man suggests eating at a table instead of the floor, he is offering structure and support for basic needs like nurturance.

9. Provide and accept comfort.

The old man provides comfort when he suggests that the prince sleep on a bed instead of the floor. When the patient accepts the comfort of a bed, he lets go of the resigned hopelessness he may have experienced at war, where he slept in trenches, foxholes or battlefields with no support whatsoever.

10. SUPPORT THE EGO BY ADDRESSING NONTHREATENING ASPECTS OF REALITY.

After providing structure and support with warmth, protection, nurturance and comfort, the old man begins discussing *nonthreatening* topics, such as matters of state. Please take note that the old man discusses matters of state before he discusses terrible emotions. In this way, the old man strengthens the prince's ego (I. Canino, personal communication, 11.17.1992) before he addresses the traumatic experience, further reversing the regressive state of the prince.

11. Address the upsetting feelings only after there is adequate support and protection.

After all the groundwork is laid, including supportive measures and strengthening the ego, the old man can finally bring up the extreme fear of being murdered that the prince must have felt at war. But, the upsetting emotions are never discussed directly. They are addressed symbolically using the patient's own metaphor.

12. INTERPRET.

Lastly, the old man asks himself "what does it feel like to be a *scared* rooster?" And then, he makes his interpretation: "A rooster's life is always in danger."

13. WISE ADVICE.

In psychosis and severe illness, it is acceptable for a physician to give carefully tailored advice based on experience and compassion. The old man, straight out, tells the prince how to compensate. He says, "Pretend you are a human. This way you will fool the hunters who might kill you." This advice enables the prince to resume using mature defenses (Vaillant, 1992). He begins to suppress the traumatic fear, can again sublimate and then rules his kingdom with finesse.

14. Prognosis and outcome are improved.

The prince returns to normal behavior, but "still feels deep inside like he is a rooster." This means there is a resumption of normal functioning while retaining a subconscious memory of trauma.

15. FACILITATE MASTERY.

Once normal functioning is achieved, mastery may be pursued. First, encourage your patient to tell her/his story. Telling the story to an empathic listener (Charon, 2001; Danielli, 1985, 1998; Herman, 1992) has been shown to improve mastery. Next, we may collaboratively instruct our patients in the use of mature defenses⁷ (Vaillant, 1992; Meyer, 2001). The expression of narrative truth combined with an increased use of mature defenses will facilitate mastery. (The 15th archetypal step of healing was not extracted from the text of the story, but has been included nonetheless.)

16. KNOW WHEN TO LEAVE.

Although we may become fond of our patients through the emotional intimacy that is a result of an empathic relationship, we must remember that it is our duty to remain abstinent (Freud 1915) and to let go of our patients when they feel better.

AN ANTHROPOLOGICAL PERSPECTIVE

From an anthropological perspective, the trauma and regression experienced by the prince are equivalent to a rite of passage. In Native American cultures, these sorts of rites of passage are hardships deliberately inflicted, as in the Sioux Sun Dance (Neihardt 1932) or as in the native vision quest (Eliade, 1964, p. 64-66), which transform a young native into a braver, wiser or more mature chief who has seen things ordinarily not seen [Figure 2].

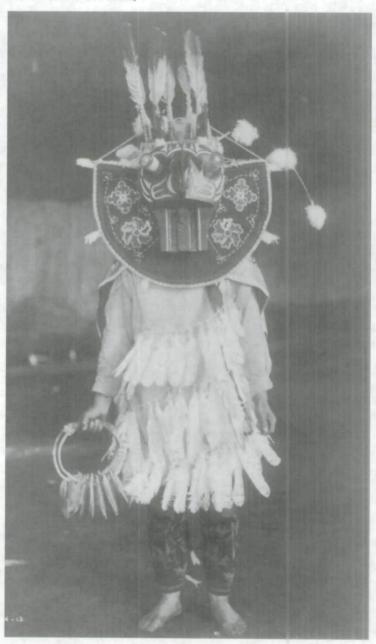
Eliade (1964) says that these rituals and ordeals are designed to make the candidate forget his past life. And here in our story, the rite of passage, of war, makes the prince first become estranged from his previous reality. Then, with the old man's help, he masters the trauma of war. As a result of this mastery, he transforms into a wiser and more mature leader. It is implied that through his suffering he has developed empathy for those whom he rules in his kingdom. He is now able to become an admirable man worthy of being king.

Mature defenses include sublimation, altruism, humor, suppression, affiliation, self observation, anticipation, self assertion, asceticism.

Figure 2

"A POET-PHYSICIAN"

MASKED COWICHAN DANCER PHOTOGRAPHED BY EDWARD C. CURTIS.
[NO RIGHTHOLDER ON FILE]



THE TRAUMA OF THE THIRD YEAR AND HOW THIS IS A RITE OF PASSAGE

The trauma of medical training is also a rite of passage. It was my observation that while becoming physicians, none of us were really prepared for all the suffering we saw in our third year—all the putrid odors associated with diseases, the real or imagined malformations of the body in illness and all the strange behaviors that repel most lay people. Some of us responded by becoming removed, giving physicians a reputation for being detached and cold. If we can encourage medical students to empathize with the most extreme examples of suffering instead of removing themselves, we help them become more able physicians. We must support their attempts to process the trauma, and help them avoid becoming removed or cold.

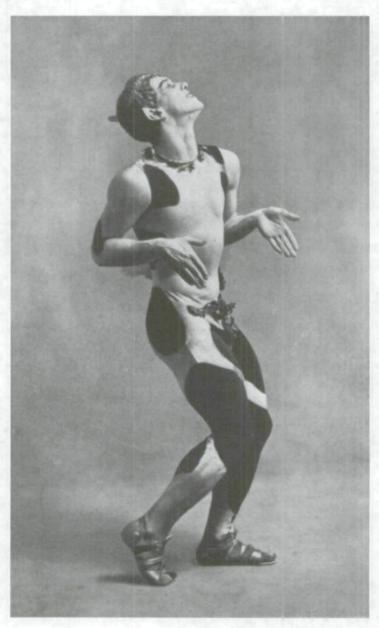
The majority of lay people have a primitive fear of anything "different." Fear of what is "different," called xenophobia by anthropologists, is developmentally derived from stranger anxiety (Spitz 1965). When stranger anxiety persists, it becomes prejudice (Parens, 2004, p. 254). This manifests in the culture of childhood. Those who are "different" are teased, ostracized, or subjected to name calling: "weird," "loony," "cretin," "spaz," "retard" may be overheard. I have observed sophisticated parents who do not allow their own children to play with children who are different, as if a primitive fear of contamination were operating. (Searles, 1965) This may be based on an ancient fear of genetic malformation if mating were to occur (Wilson, 1975). Although fear of genetic mutation may be the primitive root of some such fears, physicians are not arbiters of natural selection (Darwin, 1859) and we each must be supremely aware of any tendency within ourselves to discriminate against patients who are "different." Abnormalities, which are subjected to name-calling by children or lay persons, may be clinical conditions.

TEACHING MEDICAL STUDENTS TO DIFFERENTIATE CREATIVITY FROM PSYCHOSIS

Finally, a caveat which I enjoy mentioning to medical students, is that sometimes those who are "different" are creative individuals who "regress in the service of the ego" (Kris, 1952) [Figure 3]. Those imaginatively expressive individuals use regression volitionally, like the old man in the story. It is important for a medical student to understand the distinction between creativity and psychosis early on in their training.

Figure 3

AN EXAMPLE OF "REGRESSION IN THE SERVICE OF THE EGO." THE UNFORGETTABLE RUSSIAN BALLET DANCER VASLAV NIJINSKY AS THE FAUN, IN L'APRÈS-MIDI D'UN FAUNE (OR THE AFTERNOON OF A FAUN), PHOTOGRAPHED BY BARON ADOLF DE MEYER. USED WITH PERMISSION OF LEBRECHT MUSIC AND ARTS, LONDON.



American culture values individuality but does not hold high regard for those who are "different" (Kernberg, 1974). In other cultures, take for example Tahiti, those who are artistically different are called "Arioi," and they have special status. They are excused from domestic responsibilities and create art for the culture. They travel in bands and entertain families in villages (personal communication, Tiki Village, Morea, Tahiti. 8.1.99)].

Since our medical students are individuals who have grown up in a culture that teaches them to fear or hide what is weird or different, they are unprepared for all that they will see. This teaching tale, through a process of identification, may help prepare students in their clinical years, and later, in developing into mature, empathetic clinicians in any specialty.

This paper also represents an interpretive approach to psychosis, which is not ordinarily taught nowadays when interviewing a psychotic individual. I want to encourage the students to think, with the perspective of understanding even the most difficult patient, in a time when there is an overemphasis on reductionistic methods and biological therapies, which do not encourage us to struggle with that which seems unfathomable.

IN CONCLUSION: A PLEA TO MY COLLEAGUES AND A PROPOSED SOLUTION

I conclude with a plea to my colleagues.

We must rise to the occasion and earnestly examine the rites of passage we inflict on young medical students. We face a challenge in selfobservation of a problem endemic to our methods of education.

Soon, I hope, empathy will be taught through *empathic mentoring* (Marcus, 1999a) in every medical school everywhere.

In this paper, I have proposed that empathy can be taught using a fairy tale, which makes its impression on the unconscious mind. Others before me have attempted to cultivate humanism in medical students through literature and stories (Shapiro, Morrison, Boker, 2004; Coles 1989). Marcus (1999a) developed a successful curriculum prioritizing *empathic mentoring*, and it is described in his highly understated paper: "Psychodynamic Social Science and Medical Education." There may be many other innovators that the AAMC can tell us about.

SEVERAL STUDIES ON HOW TO TEACH EMPATHY MAY BE DESIGNED BASED ON THIS PAPER

I have proposed that a fairy tale might be used to teach empathy to medical students. A study might be designed that measures the effect of the fairy tale on empathic growth in medical students using *The Jefferson*

Scale of Physician Empathy [JSPE] The JSPE might be used to measure empathy before and after a more formalized lesson, using a formalized Q and A (to be designed).

The ISPE was specifically designed for measuring empathy in medical students and physicians (Hojat, 2007) whereas other scales of empathy have been designed for the layperson such as the Interpersonal Reactivity Index ([IRI] Yarnold, 1996), Empathy Construct Rating Scale ([ECRS] LaMonica, 1981,1996), Balanced Emotional Empathy Scale ([BEES] Mehrabian, 1996).

I have hypothesized that a lesson intended to cultivate empathy might activate the neuroplastic capabilities of mirror neurons and increase their growth in focal areas, where they are concentrated. Changes in the topographical map of the brain before and after empathy training might be investigated using neuroimaging studies, such as electroencephalography, functional magnetic resonance imaging, transcranial magnetic stimulation, magnetoencephalography, event-related potentials.

3) I have extracted 16 Archetypal Steps from the story which may be applicable to the healing of almost any illness. Researchers may test these 16 steps in terms of their applicability to many areas of medicine. Changes in empathic ability after studying the 16 archetypal steps may be measured with the ISPE-student version. If the validity of the 16 steps is confirmed, they might be taught as part of a primary prevention program, which teaches empathy and also helps us prevent what has been called traumatic deidealization (Kay, 1990) in our children. After all, aren't medical students our children? According to Hippocrates they are and therefore, we must protect them and I quote:

To hold him who taught me this art equally dear to me as my parents, to be a partner in life with him, and to fulfill his needs when required; to look upon his offspring as equals to my own siblings, and to teach them this art, if they shall wish to learn it, without fee or contract; and that by the set rules, lectures, and every other mode of instruction, I will impart a knowledge of the art to my own sons, and those of my teachers, and to students bound by this contract and having sworn this Oath to the law of medicine, but to no others.

(Hippocrates, The Oath, 5th Centruy B.C.E., trans. 2002, Michael North, National Library of Medicine)

A question remains. How do we support the development of *empathic* mentors (Marcus, 1999) when generation after generation of medical students, many of whom are now attending physicians, has experienced a traumatic deidealization (Kay, 1990) during medical training? Traumatic deidealization and its aftermaths are transmitted unconsciously from physician to medical student, generation after generation. This dynamic is called the *transgenerational transmission of trauma*. The transgenerational transmission of trauma has been described by Volkan (2002) and Danielli (1985, 1998) and it was first identified by observing traumatized cultures.

The traumatized culture of medical education is the product of a medical dynasty that has buried it's traumatic memories. In the process of burying these memories, we have also buried some of our virtues. We must salvage those virtues, which are our buried treasures, but to do so we must join together to make the necessary changes.

The American Association of Medical Colleges [AAMC] now administers an annual survey (The Medical School Graduate Questionaire see: http://www.aamc.org/data/gq/) of medical school graduates to document the levels of abuse in each class at each school, and the Liaison Commission on Medical Education [LCME] uses these measures as part of their accreditation process. Those who designed this survey took a great step forward towards extinguishing medical student abuse and punishing the perpetrators. Punishment is, in this case, an example of tertiary prevention. According to behavioral principles, punishment is reinforcing of bad behavior. According to epidemiological principles it might be even more effective to prevent abuse altogether through a primary prevention program (Barkely, 1987) involving teaching empathy to medical students through empathic mentoring. Various protocols might be developed with this in mind.

If empathy can be taught (and I think it can be), I intend to propose that it become part of every medical curriculum. A committee of clinician educators must be formed to design a curriculum for teaching empathy. Currently, the AAMC has no such committee. Those who design this curriculum might be screened with the JSPE to determine their eligibility for participation. If this project proceeds as expected, the curriculum shall be submitted to the AAMC, LCME, and the ACGME to be made available for use in every medical school.

Medicine is a powerful institution in society. If we can cultivate empathy and humanism in our physicians, we can radiate more benevolence out to civilization in general.

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REFERENCES

Alexander, F., & French, T. M. (1946). Psychoanalytic Therapy: Principles and Application Chapter 4 "The principle of corrective emotional experience." New York: Ronald Press. p. 66–70.

Alexander, F. (1954). Some quantitative aspects of psychoanalytic technique. Journal of the American Psychoanalytic Association, 2, 685–701.

Barkeley, R.A. (1987). Defiant Children: A Clinicians Manual for Parent Training. Chapter 1. Paying Positive Attention to your Child. New York: Guilford Publications.

Beebe, B., Lachman, F.M. (1988). Mother-infant mutual influence and precursors of psychic structure. In A. Goldberg (Ed.) Progress in Self Psychology, Vol. 3, New York: Guilford Press.

Beresin, E.V. (2004). Striking Accord: Tales of Teaching and the Heart. [unpublished].Paper presented at the meeting of American Psychiatric Association/National Institutes of Mental Health Vestermark Psychiatry Educator Award Lecture, New York, NY.

Bettleheim, B. (1989). The uses of enchantment. New York: Vintage Books. (Original work published

1975)

Blair R.J., Jones L., Clark F., Smith M. (1997). The psychopathic individual: A lack of responsiveness to distress cues? *Psychophysiology* 34 (2) 192–198.

Bordin, Edward S (1979). The generalizability of the psychoanalytic concept of the working alliance. Psychotherapy: Theory, Research, and Practice, 16 (3), 252–260.

Charon, R. (2001) Narrative medicine. A model for empathy, reflection, profession, and trust. Journal of the American Medical Association, 286, (15), 1897–1901.

Coleridge, S.T. (1983). Biographia Literaria: Biographical Sketches of my Literary Life and Opinions. Volume II. Chapter 14. (p. 312). (Eds.) James Engell and W. Jackson Bate New Jersey: Princeton University Press (Bollingen Series LXXV). (Original work published 1798)

Coles, R. (1989). The call of stories: Teaching and the moral imagination. Boston: Houghton Miflin. Danieli, Y. (1985). The treatment and prevention of long-term effects and intergenerational transmission of victimization: A lesson from Holocaust survivors and their children. In C.R. Figley (Ed.) Trauma and its wake (pp. 295–313). New York: Brunner / Mazel.

Danieli, Y. (Ed.) (1998). International handbook of multigenerational legacies of trauma. New York:

Plenum.

Darwin, C. (2004). The origin of the species. New York: Barnes and Noble Classics. (original work published 1859)

Davidson, R. J. (2005). Emotion regulation, happiness, and the neuroplasticity of the brain. Advances in Body Mind Medicine, 21(3-4)25 –28.

Doidge, N. (2007). The brain that changes itself. New York: Viking Penguin.

Eliade, M. (1964). Shamanism, archaic techniques of ecstasy. Princeton NJ: Bollingen Press

Fonagy. P, Gergely, G., Jurist, E., & Target, M. (2004). Affect regulation, mentalization and the development of the self. New York: Other Press.

Freud, A. (1966). The ego and the mechanisms of defense. New York: International Universities Press. (Original work published 1937).

Freud, S. (1915) Observations on transference love. Further recommendations on the technique of psychoanalysis III. Standard Edition. Vol XII. 1911-1913. The case of shreber. Papers on Transference. 157-171.

Gabbard, G., Lester, E. (2003). Boundaries and boundary violations in psychoanalysis. Washington D.C.: American Psychiatric Press.

Gardner, R.A. (1968). The mutual storytelling technique: Use in alleviating childhood oedipal anxieties. Contemporary Psychoanalysis, 4,161–177.

Goleman, D. (2006). Social intelligence. New York: Bantam Dell.

Goodall, J. (2002). My life with the chimpanzees. New York: Aladdin. (original work published 1988)

Goodall, J. (1988). In the shadow of man. Boston, Massachusetts: Houghton Mifflin

Gruenberg, P.B. (2001). Boundary Violations. In Ethics primer of the American Psychiatric Association. Washington DC: American Psychiatric Association Press. (pp. 1-9).

Haven, L. (1996). A safe place: Laying the groundwork of psychotherapy. Cambridge, MA: Harvard University Press. (Original work published 1989)

Hartman, L. (2001). Confidentiality. In: Ethics primer of the American Psychiatric Association. Washington DC: American Psychiatric Association Press. 39–44

Herman, J. (1992). Hysteria. Trauma and Recovery. New York: Basic Books.

- Hojat M., Mangione S., Nasca T.J., Cohen M.J.M., Gonnella J.S., Erdmann J.B., Veloksi J., & Magee M. (2001). The Jefferson scale of physician empathy: development and preliminary psychometric data. *Educational and Psychological Measurement*, 6,349–365.
- Hojat M., Mangione S., Nasca T.J., Rattner S., Erdmann J.B., Gonnella J.S., & Magee M. (2004). An empirical study of decline in empathy in medical school. *Medical Education* 38, 934–941.
- Hojat, M. (2007). The Jefferson scale of physician empathy. In Empathy in Patient Care. Antecedents, Development, Measurement and Outcomes. New York: Springer Books.
- Kandel, E., Schwartz, J.H., & Jessel, T.M. (2000). Principles of neural science (4th ed.). New York: McGraw Hill.
- Kay, J. (1990.) Traumatic deidealization and the future of medicine. Journal of the American Medical Association, 263 (4), 572-573.
- Kempermann, G., Kuhn, H.G. Gage, F.H. (1997). More hippocampal neurons in adult mice living in an enriched environment. *Nature*, 386 (6624), 493–95.
- Kernberg, O. F. (1974). The Temptations of Conventiality. International Review of Psycho-Analysis, 16,191–204.
- Kernberg, O. (1968). The treatment of patients with borderline personality organization. *International Journal of Psycho-Analysis*, 49, 600–619.
- Kestenbaum, C. J. (1983). Fathers and daughters: The father's contribution to feminine identification in girls as depicted in fairy tales and myths. The American Journal of Psychoanalysis, 43 (2),119–127.
- Kestenbaum, C. J. (1985). The creative process in child psychotherapy. American Journal of Psychotherapy, 39, 479–489
- Klein, M. (1932). The psychoanalysis of children. London: Hogarth Press.
- Kohut, H. (1971). The analysis of the self. Madison, Connecticut: International Universities Press.
- Kohut, H. (1977). The restoration of the self. Madison, Connecticut: International Universities Press. Kris, E. (1952). Psychoanalytic explorations in art. New York: International Universities Press.
- Krugman, R. (in press 2008). Annotation of Krugman's, The Politics. Child abuse and neglect. 23(10), 963-967. In N. Joachim & E. Leeman (Eds.), Annotated psychodynamic bibliography project. Bloomfield, CT: American Academy of Psychoanalysis and Dynamic Psychiatry (American Association of Directors of Psychiatric Residency Training www.aadprt.org; American Academy of Psychoanalysis and Dynamic Psychiatry, http://aapdp.org/).
- Krugman, R. (in press 2008). Annotation of Silver & Glicken's, Medical student abuse, incidence, severity, and significance. Journal of the American Medical Association 263, 527-532. In N. Joachim & E. Leeman (Eds.), Annotated psychodynamic bibliography project. Bloomfield, CT: American Academy of Psychoanalysis and Dynamic Psychiatry (American Association of Directors of Psychiatric Residency Training www.aadprt.org; American Academy of Psychoanalysis and Dynamic Psychiatry, http://aapdp.org/).
- LaMonica (1981,1996) Empathy Construct Rating Scale (ECRS). Santa Clara, CA Xicom, Inc.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. Child Development, 71,543–562.
- MacCaulay, W., Mellman, L.A., Quest, D.O., Nichols, G.L., Haddad, J. Jr., Puchner, P.J. (2007). The advisory dean program: a personalized approach to academic and career advising for medical students. Academic Medicine. 82(7), 718-22
- Mahler, M.S., Pine, F., Bergman, A. (1974). The psychological birth of the human infant. Symbiosis and individuation. New York: Basic Books.
- Mangus, R.S., Hawkins, C.E., Miller, M.J. (1998). Prevalence of harassment and discrimination among 1996 medical school graduates: a survey of eight us schools. *Journal of the American Medical Association*, 280:851–854.
- Marcus, E.R. (1999a). Psychodynamic social science and medical education. *Journal of Psychotherapy Practice and Research*, 8,191–194, July 1999
- Marcus, E.R. (1999b). Empathy, humanism, and the professionalization process of medical education. Academic Medicine, 74 (11) 1211–1215.
- Marcus, E. R. (2003a). Medical student dreams about medical school: The unconscious developmental process of becoming a physician. *International Journal of Psychoanalysis*, 84,367–386.
- Marcus, E.R. (2003b). Psychosis and near psychosis. Ego function, symbol structure, treatment. Madison, CT: International Universities Press.

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Mehrabian et. al. (1996). Manual for the balanced emotional empathy scale (BEES). Available from Albert Mehrabian, 1130 Alta Mesa Road, Monterey, CA 93940. USA

Merzenich, M.M., Tallal, P., Peterson, S., Miller, S., & Jenkins, W.M. (1999). Some neurological principles relevant to the origins of-and the cortical plasticity-based remediation of-developmental language impairments. In J. Grafman and Y christen (Eds.), Neuronal plasticity: Building a bridge from the laboratory to the clinic.169–87. Berlin:Springer-Verlag.

Merzenich, M.M. (2001). Cortical plasticity contributing to childhood development. In J. L. McClelland and R.S. Siegler (Eds.), Mechanisms of cognitive development: Behavioral and neural

perspectives. Mahwah, NJ: Lawrence Erlbaum Associates.

Meyer, J. (2001). Defensive Functioning Scale (Axis VI) Scoring. DSM-IV-TR. Washington D.C.: American Psychiatric Association Press. P. 807-813

Miller, A. (1997). The drama of the gifted child. New York: Basic Books. (Original work published 1979).

Neihardt, J.G., (1977). Black Elk speaks. New York: Pocket Books. (Original work published 1932)Novak, D.H., Epstein R.M., Paulsen R.H. (1999). Toward creating physician-healers: Fostering medical students' self-awareness, personal growth, and well-being. Academic Medicine, 74 (5) 516-520.

Parens, H. (2004). Renewal of life. Healing from the holocaust. Rockville, MD: Schreiber.

Piaget, J. (1932). The moral judgment of the child. London: Kegan, Paul, Trench, Trubner and Co. Piaget, J. (2001). Psychology of Intelligence. New York: Routledge Classics. (Original work published 1947)

Piaget, J. (1954). The construction of reality in the child. New York: Basic Books

Rabinowicz, H., Rabinowicz, T.M., Rabimowicz, T., (1994). The prince who turned into a rooster: One hundred tales from hasidic tradition. New Jersey: Rowman & Littlefield.

Ramachandran V.S., Oberman L.M. (2006). Broken mirrors: A theory of autism. Scientific American, 295 (5), 62.

Reich, A. (1954). Early identifications as archaic elements in the superego. Journal of the American Psychoanalytic Association, 2, 218–238

Rizzolatti, G., Craighero, L. (2004). The mirror neuron system. Annual Review of Neuroscience, 27,169–92.

Rizzolatti, G., Fogassi, L., Gallese, V. (2006). Mirrors in the mind. Scientific American, 295(5), 54
Searles, H. F., (1988). Collected papers on schizophrenia and related subjects. Madison CT: International Universities Press (Original Work Published 1965)

Schore, A. (1991). Early superego development: The emergence of shame and narcissistic affect regulation in the practicing period. Psychoanalysis and Contemporary Thought, 14:187–250.

Schwartz, J. M., Begley, S. (2002). The mind and the brain: Neuroplasticity and the power of mental force. New York: Regan Books/Harper Collins Publishers.

Searles, H. F. (1988). Collected papers on schizophrenia and related subjects. Madison, CT: International Universites Press. (Original work published 1965)

Shapiro, J., Morrison, E.H., Boker, J.R. (2004). Teaching empathy to first year medical students: Evaluation of an elective literature and medicine course. Education for Health, 7,73–84.

Silver, H.K. (1982). Medical students and medical school. Journal of the American Medical Association, 247, 309–310

Silver, H.K., Glicken, A. D. (1990). Medical student abuse. incidence, severity and significance. Journal of the American Medical Association, 263,527–532.

Silver, H.K., Glicken, A.D. (1990). Abuse of medical students. Journal of the American Medical Association, 264, 1659.

Spitz, R.A. (1965). The first year of life. New York: International University Press.

Steele, B.F. (1983). The effect of abuse and neglect on psychological development. New York: Basic Books.

Stern, D. (1985). The interpersonal world of the infant. New York: Basic Books.

Stern, D.N., Sander, L.W., Nahum, J.P., Harrison, A.M., Lyons–Ruth, K., Morgan, A.C., Bruschweilerstern, N., Tronick, E.Z. (1998). Non–interpretive mechanisms in psychoanalytic therapy: The "something more" than interpretation. *International Journal of Psycho–Analysis*, 79, 903–921.

Stratton, T.D., Saunders, J.A., Elam, C.L. (2008). Changes in medical students' emotional intelligence: an exploratory study. Teaching and Learning in Medicine, 20,279–284.

Van der Kolk, B. Blitz, R., Burr, W., Sherry, S., Hartmann E. (1984). Nightmares and trauma: a

comparison of nightmares after combat with lifelong nightmares in veterans. American Journal of Psychiatry, 141 (2),187–90.

Vaillant, G. (1992). Ego mechanisms of defense. Washington D.C.: American Psychiatric Press.

Viereck, S. (1929) What Life Means to Einstein: An interview by George Sylveter Viereck. Saturday Evening Post. Vol 202 (26 October 1929), p. 117 http://www.spaceandmotion.com/Albert-Einstein-Quotes.htm#Albert.Einstein.Quotes

Volkan, V., Ast, G., Greer, W.F. (2002). The Third Reich in the unconscious. Transgenerational transmission and it's consequences. New York: Brunner–Routlage.

Wiesel T.N, Hubel D.H. (1963). Single–cell response in striate cortex of kittens deprived of vision in one eye. Journal of Neurophysiology, 26,1003–1017.

Wiesel, T.N., Hubel, D.H. (1970). The period of susceptibility to the physiological effects of unilateral eye closure in kittens. *The Journal of Physiology*, 206 (2),419–436.

Wilson, E.O. (2000). Sociobiology. Cambridge, MA: Belknap Press (Original work published 1975).
Winnicott, D.W. (1965). A clinical study of the effect of a failure of the average expectable environment on a child's mental functioning. (On the squiggle technique) International Journal of Psychoanlaysis 46,81–87.

Winnicott, D.W. (1975). Playing and reality. New York: Basic Books.

Winnicott, D.W. (1987). Holding and Interpretation, New York, Grove Press. (Original work published 1972)

Winnicott, D.W. (1960). In: Ego distortions in terms of true and false self. The Maturational Processes and the Facilitating Environment. New York: International Universities Press. 140-152.

Xerri, C., Stern, J.M., Merzenich, M.M. (1994). Alterations of the cortical representation of the rat ventrum induced by nursing behavior. *Journal of Neuroscience*. 14 (3). 1710–1721.

Yalom, I.D. (1975). The Theory and Practice of Group Psychotherapy (3rd. ed.). New York: Basic Books. (Original work published 1970)

Yanof, J.A. (2005). Technique in Child Analysis. In E. Person, A. Cooper, & G. Gabbard (Eds.), Textbook of Psychoanalysis (pp. 267–280). Arlington, VA: American Psychiatric Press.

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