(semi)-Regressive plastic attachment therapy

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Analysis of the clinical aspects and shortcomings of re-polarization theory in conjunction with observed epigenetic unconscious dynamic structure, have led to a new approach to stabilization and structural reorientation in cases of neurosis: (semi)-regressive plastic attachment therapy. The non-commutative topography of ego structure may be adjusted in its reactive profile by way of hippocampal re-formation in clinically specific induced plasticity. As alteration in the persistence of memory itself is the proposed mechanism of therapeutic efficacy, a sharply reduced role for toxic pharmacological agents past the initial therapeutic intervention is predicted. Although derived from re-polarization theory and epigenetic unconscious theoretic aspects, this technique is not dependent upon the foundational insights which led to its discovery, and it is anticipated, that the following technique should stand alone as a functional piece of psychological practice.

Derivation of approach: It is assumed that the reader is aware of re-polarization theory, the relation between memory, and the present associative instantiation thereof to create the qualitative valence of linear reality (Norman, 2013 repolarization, 2013 quantitative). *Our memories by way of association create the quality of reality*. This leaves the neurotic and sexual abuse victim in a tough spot. Clearly, the past memories must be changed somehow, or the emphasis placed upon them altered, so as to ameliorate pathology. Hence re-polarization theory. Although effective, re-polarization theory has shortcomings:

a. It requires the user to master a self-psychoanalytic technique which is psychically invasive.

b. Said technique is useful in cases of hysteria, but appears to be unavailable to many, specifically those who present with OCD due to high functioning repressive dynamism.

c. Said technique requires many deeply painful regressions to gain full efficacy.

d. Said technique requires the access of deeply repressed formative memories, so as to create regressions.

However, much can be gained by close examination and analysis of the functional end of re-polarization theory. These insights will serve us well as we tread this new pathway.

It will be helpful to create a working analogy, a schematic model for ego processes, which can be functionally ascribed to neuroanatomical coordinations extending systemic

connectivity associated with the Default Mode Network (Carhart-Harris & Friston. 2010). Think of psychoanalysis and the role of ego as a stimulus barrier which mediates both internal and externally derived cathexis (Freud, 1923). I wish to suggest at this juncture the simple and correct idea that the combinative functionality of ego/super-ego in distributing and restricting the expression of unconscious affect, the forming of affective repressions and affective/libidinal distributions, may be usefully reduced to the idea of a non-commutative topographic experiential template. On the simplest level, imagine a stratified structure allocating resistance where height in vertical location corresponds to the strength of that element's dynamic contributions to the qualitative unconscious transference forming ontological reality. On a more nuanced level of analogy, please think of an associative neuronal attractor network, perhaps with epigenetic underpinnings, which defines perceived objects and situations-the attractor-in a nonlinear process of displaced affective valence akin to theories of quantum perception and collapse (Norman, 2015 in press), where elements closer to the surface in the associative chain, those of greater energetic cathexis are greater contributors. Increased quanta of energetic cathexis, is akin in its effect, to raising the element up in the associative chain. [Think of quantitative energetic cathexis in terms of Freud's economic/quantitative factor (Freud, vol. 14)]. The precise role of each typological participant in the formative unconscious transference *must* be quantitatively articulated if psychology is ever to claim its rightful place as hard science and place a real etiologically sound basis under this pluralistic and often ineffective discipline (Norman, 2013 quantitative), and in addition, a clear relation must be established to phylogenetic epigenetics (Norman, 2015, 2015a, b, c). However, this simple starting point, will soon prove itself a useful gateway.

The designation *non-commutative* refers to the notion that the order of topographic assembly and relation is a functional contributor to manifest outcome. Ego often carries out the repressions of super-ego, and is therefore structured so as to mediate resistance to, and distributions of, affect. As the process of mnemic re-polarization takes place, we can learn much by examining the particulars of the process. Firstly, it is to be noted that although even one or two regressions are therapeutically demonstrable in the amelioration of pathology to some substantial degree, 30 to 60 regressions are needed for the full effect to become solid. A full mnemic re-consolidation then, simply by looking at those familiar numbers, is likely a function of hippocampal mnemic instantiation, and subsequent hippocampal-neocortical consolidation (Panksepp, 1998, p. 157; Stickgold et al., 2001). The effect of such a complete mnemic re-consolidation, is to alter the noncommutative template structure. Once altered, the pathogenic contributors are reduced to lower levels of less reactivity in distributional and repressive mediation, and, the new memories are allotted a predominant place. So, effective pathological amelioration is accomplished by way of the rapeutically inculcated variance in non-commutative topography via regression, via dynamic hippopcampal plasticity, and then, neocortical consolidation. Clearly, hippocampal plasticity and mnemic functioning are key to the secondary neocortical consolidation, and, demonstrated plasticity is insufficient to gain ground with less than an unrealistic number of difficult regressive therapeutic interventions.

I wish to suggest a new method whereby the "experiential template" may be topographically re-defined and pathology lessened, without need for direct regressions, or the direct access to unconscious repressed material. A process of substitutive mnemic alteration by partial regressive augmentation is implied. This may well allow some great measure of healing, by more closely approaching the cause.

Current therapeutic contextual analysis: Current psychological theory is pluralistic, and often defines disorders by way of symptomatic clusters which allow agreement between professionals and foster the correct distribution of drugs, in a haphazard mismatch which ignores etiology, which in cases of mental illness, is often unconscious. All who have their eyes open see the lack of etiological basis, including the head of the NIMH, myself, and others (see:

http://www.thejournalofunconsciouspsychology.com/index.php?p=1 4 Purpose http://www.newyorker.com/tech/elements/the-rats-of-n-i-m-h). The pluralistic nonetiologically based bastard science: psychology, is not yet science, and lacks quantitative basis, or theoretic unity (Norman, 2013 non-elliptical; quantitative). Modern theories offer some measure of real efficacy, but are limited, and being but approaches to disorders and symptoms not based on unconscious and genetic etiology, they often require the addition of toxic drugs in order to control symptoms (Norman, 2013, mindbody; Doidge, 2007, p. 174). Cognitive Behavioral Therapy (CBT), is itself not rightly understood as to its real modus operandi affecting therapeutic amelioration. A "top down" conscious approach, may be effective in limiting symptomatic display, but a constant struggle is the sure result, and as the cause of the disorder is not addressed or acknowledged, and even the effects of the therapy are themselves poorly understood, these techniques, are not curative. Please enjoy this paper which substantiates the above analysis, and offers a description, functional analysis and historical derivation of psychoanalysis and CBT (Norman, 2013, mind-body). If we are to cure, or approach cure, we must alter the cause, not tamp down the conscious effects. Although a repolarization is the real method of intervention by way of which the lowest (neuroscientific) source of pathology can be itself changed, in this new technique, we may now *approach* the source, by rearranging the topographical structure of ego, so as to alter the reactivity and stability of personality. This new technique then, approaches the source, and alters its intra-systemic topographic structure, if not its pathological content.

Condensation: We have now through analysis of re-polarization processes established the possibility that topgraphical alteration of ego-structure/the-experiential-template by way of hippocampal mnemic functioning may be accomplished without direct regressive experience, should we find a method to encourage hippocampal plasticity, and of course we must also derive new mnemic content to inculcate into the mental system which counteracts pathogenic content by way of substitution (Norman 2015, 2015*a*, *b*, *c*). I will now spell out the substitutive content in its anatomical, historical and symbolic derivations, then the methodology to augment plasticity of mnemic formation as related to relevant early attachment dynamics.

The alpha function key: a first step:

It is to be noted that this technique is entirely centered around readjustment of primary attachment dynamics. The alpha function circuitry we will soon explore is innervated via neuroendocrine changes initiated through the dyadic exchange of gaze, touch and glance shared between the mother and infant in the first 18 months of life. It is this early unconscious impression which we will invigorate and by way of increased cathexis substitute for pathogenic unconscious content, such as guilt stemming from patriarchal phylogenetic penalties (Norman, 2013 Prometheus; 2013 re-polarization, 2015*b*, 2014 limbic). The simple ideas below are effective transformative aids within the highly technical and specifically directed unconscious attachments of re-polarization theory, and may well function to ameliorate pathology via topographical re-orientation in the context of specific neuropeptide therapy articulated below. I will now detail the basics of the alpha function key, and the circuitry from which it was symbolized:

Analysis of Schore's dopaminergic ventral sympathetic, and noradrenergic lateral parasympathetic limbic circuits, and their relation to alpha function:

Schore has discovered a piece of neuroscience which along with some symbolic analysis, has allowed me to entirely alter the balance of my world. I will admit here at the start, that I am no fan of the intersubjective processes and the subjective approach to mental illness and health. I have studied it, and have yet to eliminate even one real symptom with these ideas. Read (Balsamo, 2011) and discover why I am so deeply unimpressed. However, not all of the ideas of Bion are beyond demonstration, and some few practitioners of the intersubjective method are most skilled and highly knowledgable of many techniques (Brown, 2011). Some patients require such a method as they are simply not suited for free association, and one can see new therapeutic alterations emerge in competent therapists to accommodate these situations (Kaplan-Solms & Solms, 2002, pp. 120-126). Indeed, I have been able to make clear demonstrable sense of the intersubjective idea of "borrowing" alpha function (Brown, 2011, p. 165), evidenced in certain dreams which I have been able to provoke in a subject I was attempting to analyze, and more importantly, the notion of alpha function itself, which I have seen as clearly deficient in some subjects. One friend who was quite ill and requested my intervention, is a prime example: a man most highly intelligent with great mathematical competence, who outside of this one prized symbolic domain, was incapable of even rudimentary symbolic analysis or symbolic function in general, his world locked in the concrete physicality of alpha function deficient reality. Alpha function is demonstrable, and although the intersubjective use of this phenomenon is in my opinion, questionable, the phenomenon is not. I believe Schore has discovered the circuitry, and its developmental mechanism, which parallel Bion's ideas quite closely. Its practical usage however, is entirely another matter.

Schore has discovered two circuits which are primary in development, and function in opposition to each other: the dopaminergically modulated sympathetic ventral tegmental limbic circuit, and the noradrenergically modulated lateral parasympathetic tegmental limbic circuit (Schore as cited in Kaplan-Solms & Solms, 2002, p. 234-235). The sympathetic circuit is formed, much as Bion had supposed, as a function of the dyadic

exchange between infant and mother of glance and gaze, and I will add my own inference which is quite obvious and easily supported (Keverene, et al., 1989; Montagu, 1978; Panksepp, 1998, p.272) as infants engaged in the exchange of maternal glances are usually being held, that *maternal touch* and the subsequent addition of neuropeptides/endorphins also has a part to play in creating the result:

"It is hypothesized that maternal regulated high intensity socioaffective stimulation provided in the ontogenetic niche, specifically occurring in dyadic psychobiologically attuned, arousal amplifying, face to face reciprocal gaze transactions, generates and sustains positive affect in the dyad. These transactions induce particular neuroendocrine changes which facilitate the expansive innervation of deep sights in orbitofrontal areas, especially in the early maturing visuospatial right hemisphere, of ascending subcortical axons of a neurochemical circuit of the limbic system—the sympathetic ventral tegmental limbic circuit." [Schore as cited in Kaplan-Solms & Solms, 2002, p. 234]

The famous studies from the 1940's conducted by Spitz (Spitz in Bowlby, 1980; Panksepp, 1998, p. 262) may well imply the primacy of this developmentally innervated brain circuitry extends to include the most basic dependance: that of life itself. Specifically: if deprived of maternal touch and gaze, the infant may well die. The sympathetic tegmental limbic circuit is dopaminergically modulated, and can rightly be thought of as a primary manifestation of libidinal excitation and discharge (Kaplan-Solms & Solms, 2002, p. 237). It should be noted that the dopaminergic and opioid systems and circuitry which respond to create the good feelings which reinforce socially mediated behavior, both involve many of the same areas, such as the ventral tegmental area, where the A-10 meso-limbic dopamine cells are located (Panksepp, 1998, p. 118). Neuropeptides such as the endogenous opioids including beta-endorphin which is triggered by social cues and touch, have a primary role in creating social bonds, quelling pain, both physical and mental, are key in alleviating separation distress, creating sexual reward, and addictive reinforcement (Panksepp, 1998, p. 255, 264). So we can see here, in the formation of the sympathetic ventral limbic circuit triggered by maternal exchanges of glance, sight and touch, a source of libido, an energetic dopaminergic circuit which upmediates arousal and shapes behavior, formed presumably by way of allocating both endorphins, and those neuroendocrine functions involved with encouraging the substantial innervations of dopaminergic projections into orbitofrontal areas. Here, in the activity of the completed circuit, along with the peptide systems, dopamine and opioids serve their reward and motivational functions as social and energetic contributors.

The contrary circuit, the parasympathetic lateral limbic circuit, is to be thought of as a balance, a cut off, a competing inhibitory system to counter the rewarding energetic expression of the sympathetic circuit (Kaplan-Solms & Solms, 2002 p. 237). This circuit functions to stop our energetic libidinal expression: functional, conditional, affect regulation in response to social cues (Kaplan-Solms & Solms, 2002, pp. 234-238) and so, can best be understood as the physiological structure triggered by social disapproval: *by shame and guilt*. Both of these circuits are innervated into the orbitofrontal areas, which mediate social cues and functioning, just as one would expect (Gazzaniga et al., 2009).

The alpha function key:

As the infant progresses through the initial 18 month period during which the sympathetic and parasympathetic limbic circuits are fully formed, the infant masters several stages of differentiation. It is now accepted through the work of Klein (1952) and empirical demonstration, that a developmental/behavioral correlation at the age of four months, exists between infants categorized as attachment secure or disorganized, "dis-coordinated" [disorganized in the sense of being unable to properly integrate the intermeshed and exclusive psychical manifestations of separation RAGE and FEAR as they conflict and inhibit SEEKING and CARE] (Hopkins, 2013, p. 47). The infant at this stage singles out the mother as a separate object which is essential for CARE, and that this fact is then made evident by the manifestations of separation-RAGE and stranger-FEAR, which become manifest at 7-8 months of age (Hopkins, 2013, p. 47). To observe first hand, the interactions between mother and infant, the effect is obvious to casual observation: the mother's face is the infant's entire world, once indistinct as an object, now, once engaged in the exchange of gaze, touch and glance, only semi-distinct from himself, her face responds to his affects and anticipates as if part of himself, as if the world itself were a loving extension of the infant, a responsive and inclusive extension of himself. Here, we see the essence of all which is of the higher in man, the heart of hope itself, the nexus, the first and most primary impression of *identification with the world*. Note that I make no mention of the less important distinction, identification with mankind, which is a small and far less important aspect of this most vital and needful result, the essence of human hope, identification with the entire of the world, identification with all things, the fount of the highest of all traits, the fount of ethics themselves—Empathy (Norman, 2013 Prometheus; Norman, 2014). It is this which we will substitute for the pathogenic content.

Next please recall that all the world is given its quality and definition by way of symbolism (Norman, 2013 quantitative). Remember also, that symbolism is the mind's intra-systemic means of communication, ie., the unconscious becomes available to consciousness once symbolized in dreams (Freud, 1900). The mother, has undergone much additional layering in her symbolic meaning and impression since we were 18 months old! For this reason, to imagine her face involved in the infantile exchange of maternal gaze and glance is ineffective, as she means many things now symbolically beyond the early formative impression. The solution is to craft a symbolic image which is directly resonant to the *initial* impression of the circuitry's formative process. To engage the circuitry, and I use this each day to excellent result, the following symbolic image must be formed in the mind's eve, and, entered into as if a dream. The result is a peaceful, safe, content state indicative of beta endorphin activity, formed by manually engaging the sympathetic circuitry which connects the orbito-frontal areas with the limbic. We should observe that as beta endorphin activity is increased, pain response is decreased, and other empirically testable responses will be found, like a characteristic EEG associated with secure low stress states, rather than the easily defined activity of mentation associated with fear, and anxious stress. Here is the symbolic key, symbolized from the source formative impression which caused initial innervation, that in turn,

activates the circuitry. [The first two paragraphs are hypnotic introduction, the image is below them. *Alternative methods are also proposed below*]:

"Please relax, hear, the water, and listen to my voice. There is a meadow, within the forest, surrounded by trees, stirring, a distant breeze. The day is still and quiet. Listen to the shining brook, spilling itself, over smooth rock and sand, listen, as it splashes, so near the meadow.

You are dreaming, in the meadow, reclining, in a still bed of folded grass and thick green moss. The day is sweet and warm. The breeze is a caress. The sound of birdsong, and clear, silver water, laughing and trickling, wrap themselves around you, and enfold you. The wooded valley holds you, in the cup of tender morning light, spilling her heart of golden warmth upon you.

The sun is pouring down upon your face, shining and warm, golden and loving is this light, a light you are folded into, and have created, shining, pouring back up into the arch of heaven, spilling up from your glad face, and again down to fill you, the trees nodding as you dream them, the sky golden and warm as you have poured it—and back around—for it has dreamt you...now as the world, of the world, nourished and warmed, the circle complete, a round of golden warmth and light, spilling into the world and returning again, unto you, and again, you unto it...and all the world is eternal, safe, nourished and nourishing, a circle of happiness, pouring down and returning, warm and sweet, the circle glowing, life spilled round into warmth—and golden light.

And the sun does spill her heart of warmth and golden honied sweetness upon you, and from the open breast of your happiness, so safe and glowing, you return and love, this world, which has nourished you. Into the arch of heaven, your eye does turn, and cast your light aloft, pouring upward to fill the sky, and find, you are the sky, and this earth. In gratitude the sun does pour her heart tenderly back upon you, and return unto you, the warmth you have given, to hold and nourish your spirit, and gently cup you, within the giving heart which pours...and holds you, as warmth—and golden light."

I will note at this point that this approach in the context of re-polarization has worked wonders in my own case, and add that the image has been associated with a piece of music, and that this music once brought to mind, creates the effect as easily as the image. I will clearly admit that it may be possible to use the unsymbolized image, although I believe it is unlikely. The unsymbolized image should be tested as well as the symbolized image to ascertain comparative therapeutic efficacy in the context of the technique enumerated below. Other variations are also discussed, which may prove more effective than the poetic image.

Safe effective hippocampal plasticity induced via neuropeptide:

Oxytocin has been demonstrated to induce hippocampal plasticity and augment social bonding (Panksepp, 1998; Lin, Huang & Hsu, 2012; Monks, Lonstein & Breedlove, 2003; Leuner, Caponiti & Gould, 2012; Garcia-Segura, 2009). Clearly, it is a perfect fit

for our needs. We will attempt to use a sort of resonant semi-regressive effect, to add cathexis to the substitute ideation, and raise its status and the resultant affective contributions to the transference structure mediated by the non-commutational experiential template. All we need do is create mnemic plasticity (and unconscious access), and input the appropriate cathexis. Variations are discussed below the following basic outline.

1. The patient is given Oxytocin, and *perhaps* a light dose of hypnotic sedative or other compound to encourage a hypnoid state.

2. Once positioned in a reclined posture under dim light with eyes closed, the image is (hypnotically) presented, perhaps along with a piece of favored music.

3. The patient is instructed to recall the image and music, and keep the image and music in the back of their mind at all times. The patient is instructed to invigorate the image in their mind under conditions of stress, as a coping strategy.

4. The therapy is repeated as often as needed to add new layers of increased cathexis to the formative maternal attachment dynamic.

5. This should increase the coveted psychical contributions of alpha function, through reorientation of the pathogenic topography of the ego itself, by substituting healthy unconscious dynamics in the non-commutative template hierarchy for unhealthy contributions forming the transference.

Variations:

a. It is possible that an unsymbolized version of the image will be more effective.

b. It is possible that a surrogate therapist may provide physical contact to augment the process to greater effect in some cases.

c. It is possible that this approach could help schizophrenics. If maternal inconsistency is at the fount of schizophrenia, patients may be aided in intensive therapy. Schizophrenia appears in some studies to be responsive Oxytocin (Mac Donald & Feifel, 2012). *An entirely new attachment structure may be created.*

d. Other images each detailed to meet the specific maternal and paternal infantile needs of the particular patient may be used.

e. Other images of maternal interactivity resonant with the innervation of the primary dopaminergic sympathetic circuitry can be derived.

f. DMN destructuralization and desensitization are associated with meditative practice (Brewer et al, 2011). Images or other means such as sound or visual imagery extracted

from traditional meditative practice may prove via careful empirical study and experiment to restructure ego when extracted and applied thusly, and so improve neurotic symptomatology.

g. Head gear which uses sound and visual imagery, may be effective.

h. Full regressions used to augment re-polarization proper may possibly be encouraged with the use of 5-HT blocking agents, or other psychoactive compounds if closely supervised.

i. Additive cathexis associated with therapeutically derived archetypal structure may be augmented (Norman, 2015*d*).

j. In the case of "h" above, secondary therapeutic mnemic content may counteract pathology associated with neurotic super-ego at the source level.

Predictions:

1. Although it is not necessary for the technique to be effective, I predict that if tested, this method will reveal specific pieces of epigenetic (unconscious/phylogenetic) information to be suppressed by way of this procedure, and others expressed (Norman, 2015, 2015*a*, *b*, *c*). Once identified using the methods just referenced or some other, epigenetic analysis will reveal altered suppressions and expressions by way of histone code variance and chromatin/heterochromatin proportional analysis: *Methylation of lysines H3K4 and H3K36 is correlated with transcriptional activation while demethylation of H3K4 is correlated with silencing of the genomic region. Methylation of lysines H3K9 and H3K27 is correlated with transcriptional repression. Particularly, H3K9me3 is highly correlated with constitutive heterochromatin. [Retrieved from: https://en.wikipedia.org/wiki/Histone_code].*

2. I predict that this method will not require the addition of toxic drugs in the usual high doses, as the persistence and presentation of memory are the efficacious therapeutic mechanisms.

Practicalities:

Certain unfortunate practicalities must be taken into account. As is obvious to all who are not foolish, or motivated by conflict of interest: the current system of scientific development, is entirely monetary in its motivations, and not altruistic. Oxytocin is not patentable, and the result is that many safe therapies using it, are never brought to fruition. Please note the following:

http://onlinelibrary.wiley.com/doi/10.1111/j.1601-5215.2011.00634.x/full

"Although intranasal OT appears quite safe and tolerable, there are several practical

barriers to its therapeutic drug development in humans. These include the lack of intellectual property ownership of the actual hormone, lack of US Food and Drug Administration (US FDA) approval for any psychiatric indication and challenges around the actual availability of the drug." [MacDonald and Feifel, 2012]

The list of stated practical "clinical hurdles" is painfully weak. Only money has prevented this substance from serving the greater good and health of man.

The practical issue: Who will write the grant?

Conclusion:

(semi)-Regressive plastic attachment therapy offers a method to reform the intrarelational structure of ego. The method promises to be safe, nontoxic, and functions by way of memory's presentation and persistence to affect the unconscious/conscious transference which creates reality. By way of clinically induced hippocampal plasticity via neuropeptide (Oxytocin), the unconscious mental system may have its pathological aspects topographically restructured, to ameliorate pathology, through resonant semiregressive additive cathexis applied to specific pieces of infantile attachment structure.

References:

- Balsamo, M. (2011). Sabina. *Int. J. Psychoanal.* 92: 1347-1354. doi: 10.1111/j.1745-8315.2011.00462.x
- Bowlby, J. (1980). *Attachment and loss*. Vol. 1, Attachment. New York: Basic Books.
- Brewer, J., Worhunski, P., Gray, J., Tang, Y., Weber, J., & Kober, H. (2011). Meditation experience is associated with differences in default mode network activity and connectivity: *PNAS*, 20254–20259, doi: 10.1073/pnas.1112029108 <u>http://www.pnas.org/content/108/50/20254.full</u>
- Brown, L. (2011). *Intersubjective processes and the unconscious*. London: Routledge.
- Carhart-Harris, R.L., and Friston, K.J. (2010). The default-mode, ego-functions and free-energy: a neurobiological account of Freudian ideas. *Brain*, doi:10.1093/brain/awq010

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

Freud, S. (1886-1939). *The standard edition* of the complete psychological works of Sigmund Freud volumes one through twenty-four. London: Hogarth Press.

Garcia-Segura, L. (2009). Hormones and Brain Plasticity.
Cellular and Molecular Neuroendocrinology Laboratory, Cajal Institute. Oxford University Press.

Gazzaniga, M., Ivry, R., & Mangun, G. (2009). *Cognitive neuroscience: The biology of the mind.* London: Norton Press.

Hopkins, J. (2013). Conflict creates an unconscious id. Neuropsychoanalysis,

Kaplan-Solms, K., & Solms, M. (2002). *Clinical studies in neuropsychoanalysis: Introduction to a depth neuropsychology.* London: Karnac Press.

Keveren, E. B., Martensz, N., & Tuite, B. (1989 Beta-endorphin concentrations in CSF of monkeys are influenced by grooming relationships. *Psychoneuroendocrinol.* 14: 155-1661.

Klein, M. (1952). Some theoretical conclusions regarding the emotional life of the infant. In: The writings of Melanie Klein, Vol. 8: Envy and Gratitude and Other Works. London: Hogarth Press, 1975.

Leuner, B., Caponiti, J., & Gould, E. (2012). Oxytocin Stimulates Adult Neurogenesis Even Under Conditions of Stress and Elevated Glucocorticoids. *HIPPOCAMPUS* 22:861–868 DOI 10.1002/hipo.20947

Lin, Y., Huang, C., & Hsu, K. (2012). Oxytocin Promotes Long-Term Potentiation by Enhancing Epidermal Growth Factor Receptor-Mediated Local Translation of Protein Kinase Μζ.

The Journal of Neuroscience, 32(44): 15476-15488; doi: 10.1523/JNEUROSCI.2429-12.2012 http://www.jneurosci.org/content/32/44/15476.full

MacDonald, K., & Feifel, D. (2012). Oxytocin in schizophrenia: a review of evidence for its therapeutic effect *Acta Neuropsychiatrica* vol., 24 #3 **130–146**, DOI: 10.1111/j.1601-5215.2011.00634.x

Monks, D., Lonstein, J., & Breedlove, M. (2003). Got milk? Oxytocin triggers hippocampal plasticity. *Nature Neuroscience* **6**, 327 - 328 (2003) doi:10.1038/nn0403-327 http://www.nature.com/neuro/journal/v6/n4/full/nn0403-327.html Montagu, A. (1978). *Touching: The human significance of the skin*. New York: Harper and Row.

Norman, R. (2013). The quantitative unconscious: A psychoanalytic perturbation-theoretic approach to the complexity of neuronal systems in the neuroses. *The Journal* of Unconscious Psychology and Self-Psychoanalysis. Retrieved from: www.thejournalofunconsciouspsychology.com

Norman, R. (2013). Who Fired Prometheus? The historical genesis and ontology of super-ego and the castration complex: The destructuralization and repair of modern personality—An essay in five parts. *The Journal of Unconscious Psychology and Self-Psychoanalysis*. Retrieved from: www.thejournalofunconsciouspsychology.com

 Norman, R. L. (2013).
 Re-Polarization Theory: From Native Psychoanalysis to Sublimation—The Practical Reconstruction of Modern Personality. *The Journal of Unconscious Psychology and Self-Psychoanalysis*. Retrieved from: <u>http://www.thejournalofunconsciouspsychology.com</u>

Norman, R. (2013). Nine Short essays and *Native Psychoanalysis—a Non-Elliptical Technique*: Necessary Background Information Basic to Native Psychoanalysis. *The Journal of Unconscious Psychology and Self-Psychoanalysis*. Retrieved from: www.thejournalofunconsciouspsychology.com

Norman, R. (2013). Mind Body Syndrome—the unconscious constellation: Condensation, abreaction and dissociative-repression in the genesis and disbandment of Tension Myositis Syndrome. *The Journal of Unconscious Psychology and Self-Psychoanalysis*. Retrieved from: www.thejournalofunconsciouspsychology.com

Norman, R. (2014).

Limbic connectivity and sympathetic neural balance: the primary psycho-physiological locus of affect. *Mind magazine*. Retrieved from: http://www.mindmagazine.net/ http://www.mindmagazine.net/#!new-ideas/czpl

Norman, R. (2015). Modern Man: of phylogeny, guilt, obedience and consequence—an answer to old problems. *Mind magazine*. Retrieved from: http://www.mindmagazine.net/ http://www.mindmagazine.net/#!new-ideas/czpl Norman, R. (2015*a*). Mnemic Psycho-Epigenetics: the foundational basis of depth, archetype and synthesis in psychology. *Mind magazine*. Retrieved from: http://www.mindmagazine.net/ http://www.mindmagazine.net/#!new-ideas/czpl

Norman, R. (2015b). The Epigenetic Unconscious pt. 1. *Mind magazine*. Retrieved from: http://www.mindmagazine.net/ http://www.mindmagazine.net/#!new-ideas/czpl

Norman, R. (2015*c*). The Epigenetic Unconscious pt. 2. *Mind magazine*. Retrieved from: http://www.mindmagazine.net/ http://www.mindmagazine.net/#!new-ideas/czpl

Norman, R. (2015*d*). Object, archetype, and the social myth of conditional regard: The applied neuroscience of social healing. *Mind magazine*. Retrieved from: http://www.mindmagazine.net/ http://www.mindmagazine.net/#!new-ideas/czpl

Norman, R. (2015). In Press: Quantum unconscious pre-space: a psychoanalytic neuroscientific analysis of the cognitive science of Elio Conte—the hard problem of consciousness, new approaches and directions. In Press: to be published in *Neuroquantology*.

Panksepp, J. (1998). Affective Neuroscience: The Foundations of Human and Animal Emotions. New York, NY.: Oxford Press.

Stickgold, R., Hobson, J., Fosse, R., Fosse, M. (2001). Sleep, learning, and dreams: Off-line memory reprocessing. *Science*, 294, 1052 – 1057. doi: 10.1126/science.1063530