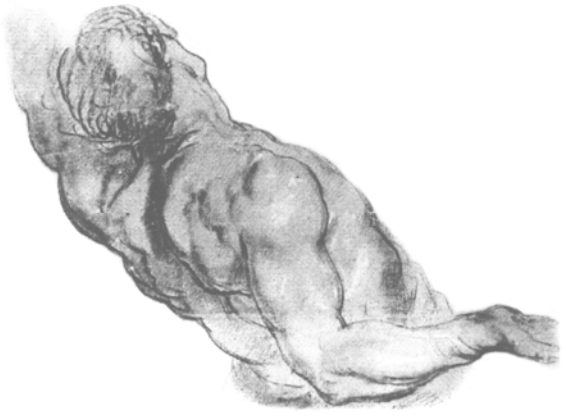
the usa body psychotherapy journal

The Official Publication of

THE UNITED STATES ASSOCIATION FOR
BODY PSYCHOTHERAPY

Volume 8 Number 2 2009

Table of Contents



USABP Mission Statement

The USABP believes that integration of the body and the mind is essential to effective psychotherapy, and to that end its mission is to develop and advance the art, science, and practice of body psychotherapy in a professional, ethical, and caring manner in order to promote the health and welfare of humanity.

The USA Body Psychotherapy Journal
Editorial, Volume 8, Number 2, 2009

Body psychotherapy is no longer on the fringes of psychology and psychotherapy. Neuroscience has built a bridge between body psychotherapy and "mainstream" psychotherapies. Other psychotherapeutic modalities are curious about us, and it is time to claim our place as a mainstream, evidence-based branch of psychotherapy which has a great deal to offer. Four major US universities offer graduate degrees in somatic psychology, and undergraduate courses are mushrooming. Conferences of "major" organizations are asking us to present our work.

With this issue, we conclude our eighth year of publication. The USABP Journal has grown in every way since Robyn Burns and I sat in a Board of Directors meeting outside Houston and volunteered to put it together "somehow". Robyn has been my constant colleague, lending her wise, critical and practical eye to advise me on virtually every aspect of the Journal and then to actually produce it! It has been a wonderful collaboration.

Now the Journal is bursting at the seams and we are investigating ways of letting it grow, perhaps exponentially. We need to publish at least one more issue per year. And, we need to make it more widely available online. Towards that end, USABPJ is exploring how best to meet these needs in the face of an uncertain economy and limited resources. Rest assured USABPJ will continue to "somehow" manage to provide the MOST possible content within our very tight financial constraints and will continue to strive to provide the BEST possible content.

Issue 8 #2 presents an array of historical, theoretical and empirical articles.

In the first in a series of 4 articles, Courtenay Young describes body psychotherapy: its scope, its various modalities, and how it fits – and where it doesn't fit – into mainstream psychotherapy from the viewpoint of a "scientific" classification. From his vantage point as a founding member and past president of the European Association for Body Psychotherapy, he traces some of the origins and reasons for the 'splits' – in part to do with the type of science, but also to do with politics, and the predilections of the key characters concerned. He also examines the history of science in body psychotherapy, with special reference to Pierre Janet & Wilhelm Reich.

Ronald A. Alexander and Marjorie Rand present a paradigm for healing which the authors have named Mindfulness-Based Somatic Psychotherapy (MBSP) They emphasize patient participation, self-responsibility and an understanding of stress and lifestyle management, affect regulation, and the process of mind-body healing. This mind-body paradigm focuses both on the patient's core sense of self and wellness as well as the patient's presenting problem. These concepts expand the medical/psychological model. Use of the paradigm is supported by clinical material.

Judith Hendin writes of clinical research on her own practice. Clinical research is a much-neglected aspect of psychotherapy in general and body psychotherapy in particular. She examines the process and effectiveness of healing physical symptoms by accessing buried inner selves and letting their pent-up energy flow through the body. Research on 212 client symptoms showed that 193 symptoms, or 91%, divulged a buried shadow part, a "self behind the symptom." Each of these buried selves was found to carry a specific, discrete energy. When this particular energy was helped to flow through body-based techniques, the analysis of a sub-selected group of 144 client symptoms showed that 85% of symptoms disappeared or improved. These results indicate a potential for coping with the current "epidemic of mindbody disorders" (Sarno, 2000).

Deborah Harkin notes that a fundamental assumption of somatic psychology is that the mind and body are not separate but function as one (Reich, 1973). In an article based on her doctoral dissertation research, Dr. Harkin presents an overview of a decade of research on the adolescent brain and examines the evidence for adolescence as a critical period. Part 2 of this article will appear in the next issue of the USABPJ and will focus on clinical applications of the research. In this first part she notes how contemporary theory and research in various scientific disciplines have contributed to our understanding of how the mind and body develop and function together within the evolving self. Until recently, little was known about the adolescent brain. However, the discovery of complex patterns of growth and change leading up to and continuing throughout adolescence has begun to reshape views of adolescent development and provide new insights into behavior.

Anastasia McRae provides a brief overview of the current touch taboo in psychotherapy and the gradual use and acceptance of touch use in psychotherapy as evidenced through empirical research. This article may be usefully read in comparison with articles on touch in earlier issues of this Journal:

The Somatics of Touch Marcher, Lisbeth, Erik Jarlnaes, Kirstine Munster, Ria van Dijke Volume 6, No. 2, 2007 48-6
Clinicians' Use of Touch and Body Awareness in Psychotherapy: Trained vs. Untrained McRae, Anastasia D. Volume 7, No. 2, 2008 43-65
Somatic Tracking and the Ethical Use of Touch Phillips, Jaffy Volume 1, No. 2, 2002 63-77
A Study of Ethical and Clinical Implications for the Use of Touch in Therapy
AWhite, Kerstin Volume 1, No. 1, 2002 11-26
The Standard of Care in Psychotherapy and Counseling: Bringing Clarity to
Illusive Relationships Zur, Ofer Volume 6, No. 2, 2007 61-94
A Study of Ethical and Clinical Implications for the AWhite, Kerstin Volume 1, No. 1, 2002 11-26

It is important to isolate exactly what aspects of techniques or concepts we use in body psychotherapy are effective. That can often be done by isolating them and testing them outside of actual psychotherapy sessions. In a final example of preliminary research on the use of selected concepts and techniques, Katy Swafford reports on a pilot project in which four

volunteers explored the application of Akhter Ahsen's Eidetic Imagery theory to motivation in exercise activity. An initial assessment was used to identify problems in the image process and to associate these with physical symptoms. Then, a workshop using images was conducted to increase body awareness and activate original breathing and movements. A follow-up interview was conducted to identify changes in image structure and outcome. Interviews were coded and summarized to identify negative image elements and exercise experience. Evaluation of the case studies shows negative image elements associated with negative exercise symptoms and changes following the intervention that include positive changes in image response and exercise activity.

Jacqueline A. Carleton, PhD
NYC, October, 2009

The Science of Body Psychotherapy:
The Science of Body Psychotherapy Today
Part 1. A Background History

Courtenay Young

Abstract

This is the first in a series of 4 articles. In this first part, the definition of body psychotherapy is described: its scope, its various modalities, and how it fits – and where it doesn't fit – into mainstream psychotherapy from the viewpoint of a "scientific" classification. An account is then given of some of the origins and reasons for the 'splits' – in part to do with the type of science, but also to do with politics, and the predilections of the key characters concerned. The history of science in body psychotherapy is examined, with especial reference to Pierre Janet & Wilhelm Reich.

Key Words

Body Psychotherapy – Mind-Body – Psychoanalysis – Freud – Janet – Reich – Mainstream – Scientific – History

What is Body Psychotherapy?

Part of the 'official' definition of body psychotherapy, body-oriented psychotherapy, or somatic psychology (call it what you will, these are all pretty synonymous), that is currently used by both the European Association for Body Psychotherapy (EABP: www.eabp.org) and the United States Association for Body Psychotherapy (USABP: www.usabp.org) goes like this:

> **Body psychotherapy** is a distinct branch of psychotherapy, well within the main body of psychotherapy, which has a long history and a large body of literature and knowledge based upon a sound theoretical position. It is an ethical and scientific method of professional practice for relieving emotional and mental distress and for human growth.
>
> It involves a different and explicit theory of mind-body functioning, which takes into account the complexity of the intersections and interactions between the body and the mind. The common underlying assumption is that the body **is** the whole person and there is a functional unity between mind and body. The body does not merely mean the "soma" and that this is separate from the mind, the "psyche". Many other approaches in Psychotherapy touch on this area. Body psychotherapy considers this fundamental. Body psychotherapy recognises the continuity and the deep connections in which all psycho-corporal processes contribute, in equal fashion, to the organisation of the person. There is not a hierarchical relationship between mind and body, between psyche and soma. They are both functioning and interactive aspects of the whole human being.
>
> Body psychotherapy involves a developmental model, a theory of personality, hypotheses as to the origins of disturbances and alterations, as well as a rich variety of diagnostic and therapeutic techniques used within the framework of the therapeutic relationship. There are many different and sometimes quite separate approaches within body psychotherapy, as indeed there are in the other branches of psychotherapy.
>
> It is also a science, having developed over the last seventy years from the results of research in biology, anthropology, proxemics, ethology, neuro-physiology, neuro-psychology, developmental psychology, neonatology, perinatal studies, and many more disciplines.
>
> Body psychotherapy exists as a specific therapeutic approach with a rich scientific basis on an explicit theory. There are also a wide variety of techniques used within body psychotherapy and some of these are techniques used on the body involving touch, movement and breathing. There is therefore a link with some body therapies, somatic techniques, and some complementary medical disciplines, but whilst these may also involve touch and movement, they are very distinct from body psychotherapy.
>
> Body psychotherapy, as a mainstream branch of psychotherapy, has been scientifically validated by the European Association for Psychotherapy (EAP) and several modalities within body psychotherapy have also been scientifically validated by the EAP.

There are reasons, as we shall see, for emphasising the role of 'science' in the development of body psychotherapy. However, what is not being said properly, and what is pertinent, if not controversial, to this topic, is that – significantly – body

psychotherapy is also a 'craft'. I have stated this perspective about psychotherapy before (Young & Heller, 2000), however this is equally, if not more so, true for body psychotherapy. And, as we shall see, there was a significant period in the history of this branch of psychotherapy that focused much more on the 'craft' aspect, to the exclusion of almost anything else, both to the benefit and to the detriment of body psychotherapy. However, 'craft' is not the antonym of 'science' and I shall also indicate how a different form of 'science' has developed, or is being developed, out of this 'craft'.

Definitions of a Scientific Psychotherapy

However, much of science depends on definitions, so let me firstly define the terms 'psychotherapy,' 'mainstream' and 'modality'. In the UK, and in the European Association for Psychotherapy (EAP: www.eurosyche.org), 'psychotherapy' is seen as, and is being established as, a specialist, post-graduate professional training, coming after 3 years of a relevant first (Bachelor's) academic university degree, or the equivalent; a training at a Master's degree level of competency, of at least 4 years (1400-1800 hours) duration, This is a very important distinction as it sets a particular level of knowledge, skill, and experiential training that make it possible to consider body psychotherapy, as a branch of a 'profession' of 'psychotherapy,' and as being legitimately involved with a form of 'science': as opposed to being a 'cult' or a 'belief,' for there are still some who see it this way.

This definition of psychotherapy is not universally inclusive yet, as some countries in Europe have passed laws indicating that 'psychotherapy' is not a 'profession,' but an 'activity' that can only be legitimately practiced by other professionals (viz: psychologists and psychiatrists) thus legally restricting the title of 'psychotherapist' only to those people in those professions who have done some additional training, and often state-registered 'psychotherapy' is restricted to only certain types of psychotherapy: psychodynamic, systemic, or cognitive behavioural. However – it important to stress that these laws have not, as yet, been properly tested in the courts, and the indications are that they may not stand that crucial test as these laws could well contravene the basis of the European Union as a free labour market, thus amounting to a form of a 'restrictive practice'.[1]

In the meantime, the EAP is pushing the EU to create a "common platform" for psychotherapy, which would identify certain acceptable basic standards of training and allow registered psychotherapists who conform to this standard, probably the European Certificate of Psychotherapy, to work anywhere within the EU. So, we shall see how well these differing definitions stand the test of time.

There is another form of definition that becomes relevant here: one can restrict the use of a label (in this case the label of 'psychotherapist'), but a more pertinent definition is around what the person with that label actually does. This form of distinction is dependent on what the professional actually does: if you can fix a boiler and mend a leaking pipe, then you can qualify as a plumber, even though you may have trained somewhere else. The definition of a profession by what the professional can do is called "functional competencies" and a mapping exercise of the functional competencies of all the trades and professions is being undertaken by the European Union. Psychotherapy has yet to do this, though there is a project starting to do this within the EAP.

But a significant part of any 'science' depends also on classifications within these definitions. So, once we have eventually established what psychotherapy is, then, within that professional category, there are various 'mainstreams' of psychotherapy: psychodynamic, systemic, cognitive behavioural, humanistic, transpersonal, etc. There is considerable argument about some of these 'mainstreams': for example, psychoanalysis is considered by everyone else to be a legitimate 'mainstream,' different slightly from 'psychodynamic'. However, the psychoanalysts themselves do not want to see themselves on a par with (say) Gestalt psychotherapists, and so they (or some of them) wish to separate themselves from 'psychotherapy' and try to create a different 'profession' of 'psychoanalysis'. This differentiation will probably not work, as it is much too parochial and it will not stand up to other tests. Any objective definition, (a 'scientific' classification?) clearly demonstrates that they do essentially the same job as psychotherapists, and thus they are part of the same profession, though they may be from different 'mainstreams' and work in different ways.

This term 'mainstream' is used to define a branch of psychotherapy and can also contain several different 'modalities': viz. the psychoanalytical 'mainstream' contains (amongst others) the Freudian, Jungian, Lacanian, Kleinian and Adlerian 'modalities' and you can train in any one of these modalities fairly exclusively, yet still remain clearly within the mainstream. There is more of a basic homogeneity within a mainstream, between the quite varied modalities, than between different 'mainstreams' as these tend to have very different sets of value systems and technologies from each other: thus there are very different bases for comparison (or agreement) between (say) psychoanalysis and cognitive behaviourism, or humanistic and systemic psychotherapies. Within the process of defining what a 'psychotherapy' is, there are currently about 8-9 possible 'mainstreams' of psychotherapy that have been identified, though these are sometimes limited to about 5, and, even within this framework, classification, terminology and opinions vary considerably. Politics also raises its head here, which (of course) has nothing to do with science – really!

[1] There is one case known, to date, of and Austrian psychotherapist successfully challenging the law in Italy: Heinrich Lanthaler, 15 October 2004, N.5624, appeal against the decision of the administrative court in Bolzano..

At one meeting of the EAP (Budapest, October 2000) the following two positions were being held: the first classification by me and others; the second by another academic British colleague.

Version 1:

Mainstreams:	**Specific Modalities:**
Psychoanalytical Psychotherapy	Freudian, Lacanian, Adlerian, Jungian, etc.
Psychodynamic Psychotherapy	
Behavioural & Cognitive Psychotherapy	
Systemic Psychotherapy	Family and Sexual Psychotherapies
	Brief Psychotherapy
Humanistic Psychotherapy	Transactional Analysis, Gestalt, Person- Centered, Existential
Group Psychotherapy	Group-Analytic, Encounter, etc.
Body Psychotherapy	Biosynthesis, Bioenergetics, Biodynamic, Bodynamic, Hakomi, etc.
Transpersonal Psychotherapy	Psychosynthesis, and others
Hypno-Psychotherapy	
Expressive Psychotherapy	Psychodrama, Dance, Art, Movement Psychotherapy
Integrative Psychotherapy	*Needs a meta-theory to integrate two (or more) different psychotherapies.*
Other Psychotherapies	with Children, Couples, (and special client groups)
Specialist Forms:	Trauma, Sexual Abuse, Bereavement, Eating Disorders, etc.

Version 2:

Mainstreams and Modalities:
I think we need to make a fourfold distinction for this to be possible – and some of it may also depend on what others do. **i.** We need to distinguish the *field of regulation*, viz: Psychotherapy, Psychotherapist. **ii.** We need to distinguish *Fundamental Method*, viz: Narrative-Relational, and Programmatic/Outcome-based. (I do not think this would be reflected in the EAP Register, but rather in *the analysis of the field* in recognising differing kinds of expertise relevant to training standards, education issues, validation, and discipline.) **iii.** We need to distinguish *Meta-Modality [Mainstream]*, at the level of Member Institutions or Colleges, viz: Psychoanalytic-Jungian; Humanistic-Integrative. **iv.** We need to distinguish *Modalities* at the level of professional craft designations, viz: Gestalt Psychotherapist, Lacanian Psychoanalyst.

These sorts of classifications, whilst on the one hand being essential to 'good' science, from another perspective are also largely semantic. The EAP has openly tended towards the first perspective, but internally perhaps more towards the second. However, the EAP has additionally required that each identifiable mainstream, and (especially in the case of body psychotherapy) each identifiable modality within that mainstream, answer in full the EAP's "15 Questions on Scientific Validity" (see Appendix 1): the substantive written answers to each question are then assessed by a clearly established, peer-review process (good science) before the organisation representing the mainstream or modality can be fully (politically) accepted. About 40 different organisations have been so accepted, with about 8-9 modalities within body psychotherapy additionally accepted as 'scientifically-valid'.

It is perhaps worth noting that any method of scientific classification is successful until it is challenged on clearly demonstrable grounds: so far, none of the above has been challenged, whereas Aristotle's classifications of the animal kingdom, that held sway for about 2,000 years, have now been successfully challenged.

With respect to professions, another classification system has recently come into play: that of "functional competencies" and this will – in time – probably provide the necessary Occam's Razor as to what is, or isn't, a psychotherapy (see below).

Classifications within Body Psychotherapy

And what applies to psychotherapy, in this instance, also largely applies to body psychotherapy. There was an exercise in 1990-1991 to establish the 'scientific validity' of body psychotherapy – as a 'mainstream' within psychotherapy – and this was

extremely successful, even though the various modalities within body psychotherapy politically also had to follow suit. Whilst this exercise was laborious, it also ensured that the various modalities within body psychotherapy got their acts together and "did the science".

At this point, it is necessary to identify some of the numerous 'modalities' that currently exist within the 'mainstream' of body psychotherapy: another type of scientific classification. Just their titles will be listed here, with the name of the 'founder' of this type of body psychotherapy. There follows a further list of body therapies, significantly different from the first list, and a distinction will then be made between these. There is no particular order to this list, nor is it totally inclusive.

The various body-oriented psychotherapy modalities include:

Wilhelm Reich's USA-based 'Orgonomy'
Alexander Lowen's 'Bioenergetic Analysis'
Gerda Boyesen's 'Biodynamic Psychology & Psychotherapy'
Reichian (Wilhelm Reich / Ola Raknes') 'Character-Analytical Vegetotherapy'
Nick Totton & William West's 'Neo-Reichian Psychotherapy'
Chuck Kelley's 'Radix' work
John Pierrakos's 'Core Energetics'
Ron Kurtz's 'Hakomi'
Jay Stattman's 'Unitive Psychotherapy'
Lisbeth Marcher's 'Bodynamic Analysis'
Ajuriaguerra's psychoanalytically-oriented 'Psychomotor Therapy'
David Boadella's 'Biosynthesis'
Ilana Rubenfeld's 'Rubenfeld Synergy'
Malcolm Brown's "Organismic Psychotherapy"
Al Pesso's 'Pesso-Boyden Psycho-Motor System'
Peter Levine's 'Somatic Experiencing'
Jack Lee Rosenberg's 'Integrative Body Psychotherapy'
Arnold Mindell's 'Process Oriented Psychotherapy' (though this also extends outside of body psychotherapy),
Yvonne Maurer's 'Body-Centered Psychotherapy'
Lillemore Johnsen's 'Integrated Respiration Therapy'
Paul Boyesen's 'Psycho-Organic Analysis'
Luciano Rispoli's 'Functional Psychology'
and many others.

There are also other branches of body-oriented psychotherapy, like Christine Caldwell's 'Moving Cycle,' and Susan Aposhyan's 'Body-Mind Psychotherapy, that have evolved from the dance and movement therapies. There are, as well, many splits, amalgamations with other psychotherapies, and other variations of the above, so new body-psychotherapies continually emerge like Pat Ogden & Kekuni Minton's 'Sensorimotor Psychotherapy' (coming out of Hakomi) and Jack Painter's 'Psychotherapeutic Postural Integration' (incorporating Gestalt).

There are currently about 40 different body psychotherapy training programmes in Europe, at (roughly) masters degree level, but only one with a university Masters programme, and there are many more in the USA, including at least four university Master's and Ph.D. courses in 'Somatic Psychology.' (This term seems more popular academically in the USA, than variations of 'Body Psychotherapy' or 'Body-Oriented Psychotherapy.') There are also training programmes in Israel, Australia, various South American countries, Japan, and Russia.

Distinct from these, in the field of bodywork or body therapy, (apart) from the field of traditional physiotherapy, there are thousands of different programmes and methods: various types of massage (Swedish, medical, sports, energy, aromatherapy, etc.); structural, functional and movement therapies like Ida Rolf's 'Rolfing,' Joseph Heller's 'Hellerwork,' the Alexander Technique, Postural Integration, and Moshe Feldenkrais' "Awareness Through Movement."

Then there are therapies more geared to emotional release like: SHEN Physio-Emotional Release Therapy, Myofacial Release, the Trager Approach, the Rosen Method, etc.; as well as Asian bodywork techniques like Acupunture, Shiatsu, Moxibustion, Acu-yoga, etc.; bodywork therapies from the Indian sub-continent, like Aurudevic Medicine, Prana- and Hatha-Yoga; energy-based body therapies like, Therapeutic Touch, Kinesiology, CranioSacral Therapy, Reiki, Polarity Therapy, Reflexology, Metamorphic Technique, etc.

Whilst many of these may be 'psychotherapeutic,' they are – according to the classification above – definitely not psychotherapies. These 'body therapies' generally do not involve any training in proper psychotherapy, in mental disorders, or in working emotionally in deep or lasting ways with a wide variety of people with different psychological 'conditions'. They usually do not utilise any breadth or depth of perspective about the person's inner, emotional and cognitive life, their childhood development, their views of the world, and so forth. Training in these therapies does not fit into the model of professional psychotherapy training, and these methods therefore cannot normally be considered as 'psychotherapies'. Some of these 'body therapies' may eventually evolve into a body psychotherapy; that is to be welcomed.

There are also psychologically-oriented 'body therapies' like Janov's 'Primal Therapy,' Leonard Orr's 'Rebirthing,' and Stanislav Grof's 'Holotropic Breathwork,' which again do not fully constitute a 'psychotherapy' training, and some of which veer much more towards a belief system. Finally there are purely body physiological therapies like: Progressive Relaxation Therapy, Autogenic Technique, and so forth (although confusingly 'Autogenic Psychotherapy' is accepted in a few European countries).

Many of the body psychotherapy 'modalities' listed above have not crossed the Atlantic, either way, and so may be relatively unknown to some readers. This does not give them any lesser status, in scientific terms, than a newly discovered species of butterfly in the Brazilian rainforests (viz. *Lepidoptera Philaethria dido*) because a degree of rarity does not mean that something is un-scientific or is not worthy of consideration. We are constantly seeing, or hearing of, new developments and new methodologies, and this is healthy.

It is therefore perhaps legitimate to view body psychotherapy more generically as a 'field' of knowledge, awareness, methods and techniques, made up from a variety of perspectives, some overlapping with other 'fields' rather than as a specifically defined mainstream, modality or method. And, then we would have to consider the history of how this field developed and subsequently what sort of science is appropriate to this field, and also how it is developing and growing, and how we can assist this.

Historical Overview of the 'Science' of Body Psychotherapy: Dr. Pierre Janet

Whilst Freud founded psychoanalysis over one hundred years ago, supposedly in 1892, it has largely been forgotten that the work of Dr Pierre Janet (1889) preceded him by at least three years, and Janet (also influenced by Freud's mentor, Charcot) can properly be considered as the first real body-psychotherapist. David Boadella (1997) wrote elegantly about Janet's early work and makes a clear connection between body psychotherapy and the work of Janet going back to at least 1885. Janet (1907) reported on his own theory of hysteria at a conference in Amsterdam and Jung reported at the same conference that, *"the theoretical presuppositions for the thinking work of the Freudian investigation reside, above all, in the findings of Janet's experiments"* (Boadella, 1997, p.47 quoting De Bussy, 1908). Thus, in looking at the history of the 'science' of body psychotherapy, we therefore need to consider, in some detail, this important, early scientific work of Pierre Janet.

His first extended research was into hysterical neuroses, which he conducted prior to 1889 and then later, under Charcot, at the Psychological Laboratory in Salpêtrière. He published the results of this research in 1886, in his philosophy thesis in 1889, and his medical thesis, *L'état mental des hystériques*, in 1892. He was perhaps the first person to draw a real connection between events in the subject's early life and their present-day traumas. His theories of hysteria and dissociation, based on solid research, are still valid and alive today (van der Kolk & van der Hart, 1991; van der Hart & Friedman, 1989; and Ey, 1988).

Janet also coined the words 'dissociation' and 'subconscious' and contributed much to the modern concepts of mental and emotional disorders involving anxiety, phobias, and other abnormal behaviour. He then turned his attention to another broad category of neuroses: 'psychasthenia' with its inherent obsessions, phobias, tics, automatic acts, etc and this resulted in two volumes on obsessions and psychasthenia. He published these volumes in 1903. In 1923 he wrote a definitive text, *La médecine psychologique*, on suggestion, and between 1928-32, he published several papers on memory.

Janet was incredibly respected in his time. In 1898, he was appointed lecturer in psychology at the Sorbonne, and in 1902 he succeeded Théodule Ribot as the chair of experimental and comparative psychology at the Collège de France, a position he held until 1936. He was also elected a member of the Institut de France in 1913. He regularly visited North & South America, and his lectures in 1907-8 at Harvard were published as **The Major Symptoms of Hysteria** (Janet, 1907). He received an honorary doctorate at Harvard's tri-centennial celebrations in 1936.

However, historically, Janet's considerable body of work (over 17,000 printed pages) was neglected in favour of the rising popularity and general public acceptance of Freud's psychoanalytical observations. It is perhaps interesting that Janet focused on empirical work and research, and Freud on theory and dramatic conceptualizations: how scientific is that!

Boadella (1997) describes how Janet's work also included significant findings about: the diaphragmatic block; the connection between emotional tensions & constrictions in the flow of fluids in the body; massage work; the formative process of the embryological stages of development; visceral consciousness; channels of contact; the kinaesthetic sense; movement and intentionality; the importance of working with the body with traumatized patients; and the significance of a change in (or lack of change in) the patient's own body image.

Janet's concept of 'rapport' was parallel to, and possibly the foundation of, Freud's concept of 'transference,' though it has much more of an empathic and body-oriented sense. Janet is also believed to have influenced Jung, and there is some, slight evidence that Jung went to study with him in 1902 in Paris, though this is not mentioned in Jung's autobiography. Jung's concept of psychological complexes is certainly derived from Janet, as is his concept of the introverted and extroverted personality types, an adaptation of Janet's concepts of 'hypotonia' (sense of cohesion) and 'asthenia' (lack of psychological force).

Adler also acknowledges that his inferiority complex constituted a development of Janet's observations on *"le sentiment d'incompletitude"* and he linked this to organ inferiority and organ neuroses in a similar way to Janet's work in somatic psychology. All this provided a very sound 'scientific' basis for the future development of body psychotherapy. However, as we shall see, things subsequently went a little wrong, and this scientific basis was largely abandoned.

The Unscientific Development of Psychoanalysis

Despite Freud having originally described the ego as *"first and foremost a body ego"* (Freud, 1923, p. 364), the emerging practice of psychoanalysis in the early years of the 20th century chose to confine itself to how the psyche can affect the body, and not the reverse, and Freud essentially pursued his 'talking cure' for mental and physical ailments ignoring the body, except as the recipient of symptoms. This trend increasingly began to ignore, and even reject, the relevance of the body of the patient and tried, at the same time, to contrast and compare itself with the predominant empirical medical model. In the therapy room, psychoanalysts also began to seat themselves in such a manner that there was no proper view of their client's body, which also effectively removed the possibility of most non-verbal communication (Young, 2006 a & b).

In this historical development, we can begin to see several main opposing or contrary directions: a growing trend towards a disownment of the body, paralleling the growth of understanding about the mind; a rejection of the 'medical' model (and thus the body) where psychoanalysis was originally seen as equally a treatment for somatic disorders; a perpetration of the traditional mind-body split; a (hotly disputed) need for this new 'profession' to be socially acceptable in a post-Victorian society; and a general movement away from empirical science, towards a more popular humanistic approach. It was almost as if certain splits became necessary for each of the individual parts to exist and develop, *in absentia*. Certainly, psychoanalysis and any form of body-oriented psychotherapy split and developed separately, unfortunately psychoanalysis also split off from pure science for a long time as well.

Psychoanalysis (and psychodynamic psychotherapy) has steadily shifted its understanding away from the instinctual, organic, and drive-based models of cognition and awareness towards a more object-relational basis, with the focus on transference and counter-transference, and on psychodynamic history, without any reference to, or appreciation of, the body. This trend, I believe, was almost fatal as it limited the personal and social relevance of psychoanalysis, and it also took itself away from the realms of the 'conventional' understanding of science. It is still largely in this position today, though some recent work, especially from Hörst Kächele at the University of Ülm, is trying to put a solid, scientific basis back into psychoanalysis. As we shall see in Part 4, there are also strong movements to 'adopt' the findings of neuroscience to 'prove' psychoanalysis.

Wilhelm Reich

In the late 1920s and early 1930's, Wilhelm Reich, Freud's brilliant young student, for a variety of complex reasons began to postulate a new direction for psychoanalysis, different from the way Freud and the other psychoanalysts were going at that time. This (along with other factors) would unfortunately lead to Reich's eventual expulsion from the International Psychoanalytical Association in 1934 (Boadella, 1973, 1985).

Reich had previously been working intensively for six or seven years in Vienna in clinics that had been established for working class people with sexual problems. From his extensive and meticulous observations, he developed a new theory. He first proposed his 'orgasm theory' at a Psychoanalytic Conference in Salzburg in 1924, based on this clinical work, and the peer-supervision and scrutiny work that was being conducted in the fortnightly Technical Seminars that he had proposed and then led for several years. He was trying to establish a 'systematic' (scientific) way of dealing with neuroses, something that Freud had dreamed about, but never managed to achieve.

Reich later expanded this work into his book **Character Analysis** (Reich, 1933), which is still considered a definitive and classical text by most branches of psychotherapy. In this developmental work, he was definitely able to draw on a much sounder and more extensive clinical basis than Freud had ever done for his theoretical work, and this may have been one of the unconscious components in the resulting enmity between them.

Reich had published his first book **The Function of the Orgasm** (Reich, 1927) fully within the realms of psychoanalysis, and essentially on a sound clinical basis. Whilst this was initially well-received, Freudian psychoanalysis was already beginning to (or trying to) move away from the 'libido theory' – because of its apparent failure to be substantiated. There had also been a shift from the original theories of psychic energy towards theories of psychic structure. Reich, in contrast to this trend, had instead developed a systematic, and demonstrably effective, way of working with people's libido and psychic energy.

He re-examined Freud's original theories and offered a much greater understanding about the role of the repression of libido in the generation of anxiety (Reich, 1930). All substantiated by meticulous clinical research. However, historically, he was just too late. Freud was taking his theories in a different, more comfortable, direction – and he did not want to look back, or go back. In the late 1920s, their ways parted definitively when Reich moved to Berlin. At this point, he was still well within the psychoanalytical group there, and became a close friend of Otto Fenichel.

The divergence that happened before 1930, which took the 'body' out of mainstream psychotherapy, was possibly also connected with Freud having dropped the (bodily-oriented) libido theory in favour of his then current fascination with 'thanatos'; possibly as a reaction to Reich's declared interests in sexuality, social reform and Marxism; possibly with Reich's move from Vienna to Berlin; but more probably to do with Reich's challenge to Freud's essentially conservative direction (established in **Civilization and its Discontents**) that it was not the task of psychoanalysis to save the world.

Reich believed that it was and felt passionately that many neuroses were preventable, given some sexual education, a bit of social re-organisation, and some systematic clinical work. His talks and publications on the prophylaxes of neuroses were all based on his sound and extensive clinical work, as was his publication of **The Sexual Revolution** (Reich, 1930).

However he had also become temporarily instilled with admiration for some of the social reforming aspects of Marxism, and this made the 'mix' of what he was proposing a very heady and unacceptable one at that particular time – even to the Communists. Combined with all of this, Freud's increasing avoidance of the body and the many socio-political implications for the new 'discipline' of psychoanalysis, all contrasted with Reich's increasing use of the body as an essential indicator in the build-up and the treatment of neuroses, and his socio-political theories connected with sexuality.

One thus had an almost inevitable irrevocable parting of the ways. The 'body' in psychotherapy became formally disowned. This development was, of course, being 'shadowed' by the rise of National Socialism (Fascism) and Hitler coming to power in Germany in 1933. Reich didn't help matters by publishing **The Mass Psychology of Fascism** in Copenhagen in that year. He had to leave Germany and moved initially to Denmark, then to Sweden and eventually settled in Olso, Norway. During this phase, he developed (with help from Elsa Lindenberg) a body-oriented form of psychotherapy that he later called Character-Analytic Vegetotherapy, as well as beginning to study the biological basis of therapy.

I have gone at some length into the personal, social and political reasons for this rejection, and the subsequent split from 'mainstream' psychotherapy (psychoanalysis) at that time, because these 'socio-political' and philosophical dynamics (to say nothing of the psychological ones between Freud and Reich), all totally ignored the scientific and clinical bases for Reich's theories.

With Reich's expulsion from the International Society in 1934, body psychotherapy (though it wasn't called that then) became definitively split-off from psychoanalysis and therefore from the mainstream trend of the developing psychodynamic psychotherapies.

Between 1935 and 1955, Reich mainly focused on investigating the scientific basis of the libidinous 'body energy' that he had discovered that existed everywhere and that he called 'orgone' energy. This is what others had called 'life energy' *(elan vital)*, or what is known in China as 'Chi' energy and possibly the 'Tao'. Reich was a natural scientist, with incredible energy. In 1933-4, he had to leave Germany after the 'take-over' by the National Socialists and moved to Copenhagen, and then to Malmö in Sweden with his new partner, Elsa Lindenberg (Young, 2009). She was a dancer, trained by Laban and Gindler, and it was during this period that he developed his form of body psychotherapy that he called 'Vegetotherapy': this was "character-analysis in the realm of the body". It is extremely significant that he did this, which involved breaking two psychoanalytical taboos: touching one's client, and working with them in an undressed state, at the exact same time that he started living with someone with significant experience of body-work and movement. This psychotherapeutic work was based on meticulous observation. Boadella writes:

> *Reich was the first analyst, however, to introduce an exhaustive study of just what bodily mechanisms were involved in the dynamics of repression, dissociation or other defences against feeling.*
> *When attention was focused directly on the body in this way he found that it greatly speeded up the process of liberating the repressed effects. The patients he treated in Copenhagen had shown the release of vegetative energy as the result of consistent work on the character defences. When consistent work on the muscular defences was introduced Reich found that he obtained such vegetative reactions regularly and in a stronger form* (Boadella, 1973, p. 116).

> *When Reich first began to influence the bodily tensions he continued using purely character-analytic methods: that is, he painstakingly described the patient's bodily expression to him, or imitated it himself, in order to make the patient more aware of the detailed manner in which he used different parts of his body to suppress vital feelings. He would encourage his patients first to intensify a particular tension deliberately, in order to help their awareness of it. By intensifying it he was often able to elicit in an acute form the emotion which had been bound by the chronic form of the tension. Only then could the tension be properly abandoned. Increasingly, however, Reich began to use his hands directly on the bodies of his patients in order to work directly on the tense muscle knots...*
>
> *The therapeutic goal of character-analytic technique had been the restoration of orgastic potency and the establishment of a self-regulatory capacity in love and work. The therapeutic goal of vegetotherapy complemented this at a more organic level. It was to establish what Reich called 'vegetative liveliness'. One of the clearest expressions of this was the recovery of the 'streaming' sensations caused by the liberation of energy from the muscular tensions* (Ibid, p. 119-120).

This helps to demonstrate some of the meticulousness of his clinical work as well as the connection with the background theory. Because of his systematic investigations, and because of a degree of success, Reich had noticed what a 'healthy' person's body looked like, precisely and overall. *"Looked at as a whole the body appeared to be expanding and contracting in a pulsatile manner."* This he called (perhaps unfortunately) the 'orgasm reflex'.

After the summer of 1934, having also had to leave Malmö, he moved to Olso in Norway, with Elsa, and here he really started his scientific experiments.

> *One of the principle reasons for moving to Oslo was that Professor Schjelderup had offered him the facilities of the Psychological Institute at Oslo University, where Reich was keen to attempt to confirm by some experimental work his bio-electric concept of the vegetative streamings* (Ibid, p. 130).

Boadella, in his seminal work, **Wilhelm Reich: The evolution of his work**, (Boadella, 1973, pp. 130-136) goes into a detailed description of these bio-electrical experiments. Initially Reich was investigating how a person's skin responded to their various emotional states, and particularly whether there were different electrical charges in different areas of the body, e.g. between normal skin and that of the erogenous zones. These first experiments were pure science, and they were designed to establish a scientific (physiological) basis for his (emotional & psychological) therapy work, so they really form part of the science of body psychotherapy. Boadella writes,"*… Reich was interested not merely in how much current flowed but in the direction of the shift in potential: whether it increased or decreased and how it changed, over a period of time, under the influence of emotions* (Ibid, p. 131)."
The evidence he collected was considerable; it has subsequently been replicated and endorsed. He also confirmed Kraus' earlier work on the Autonomic Nervous System. Freidrich Kraus was another Austrian internist who had become director of the Charité Hospital in Berlin until 1927. He postulated that a type of bio-electrical system was present in the body which acted like a relay mechanism storing electrical charges (energy) prior to recharge (action). He explained this proposition in his book **Allgemeine und spezielle Pathologie der Person (General and Special Pathology of the Individual**). Reich proved this postulation.

Tarchanoff had first discovered the Galvanic Skin Response (GSR) in 1890:

> *The Tarchanoff Response is a change in DC potential across neurons of the autonomic nervous system connected to the sensori-motor strip of the cortex. This change was found to be related to the level of cortical arousal. The emotional charge on a word, heard by a subject, would have an immediate effect on the subject's level of arousal, and cause this physiological response. Because the hands have a particularly large representation of nerve endings on the sensori-motor strip of the cortex, hand-held electrodes are ideal. As arousal increases, the "fight or flight" stress response of the autonomic nervous system comes into action, and adrenaline causes increased sweating amongst many other phenomena, but the speed of sweating response is nowhere near as instantaneous or accurate as the Tarchanoff response. The most advanced layers of the cortex, unique to Man, link to the thumb and forefinger especially, and there is a further complex physiological response which occurs when the forebrain is aroused. Changes in Alpha rhythms cause blood capillaries to enlarge, and this too affects resistance.* (Shepherd) [2]

C. G. Jung had experimented earlier with the GSR, so it is quite likely that Reich had encountered this work.[3]

> *He describes a technique of connecting the subject, via hand-electrodes, to an instrument measuring changes in the resistance of the skin. Words on a list were read out to the subject one by one. If a word on this list was emotionally charged, there was a change in body resistance causing a deflection of the needle of the galvanometer, indicating that a complex-related 'resistance' was triggered. Any words which evoked a larger than usual response on the meter were assumed to be indicators of possible areas of conflict in the patients, hinting at unconscious feelings and beliefs, and these areas were then explored in more detail with the subject in session. Jung used observed deflections on the meter as a monitoring device to aid his own judgment in determining which particular lines of enquiry were most likely to be fruitful with each subject.* (Mitchell)[4]

It is now accepted that there is a definite connection between a person's emotional states and the electric charge in their skin: Reich showed that it varied considerably and consistently depending on whether the emotional state was a positive one or a negative one. Despite interest in GSR from a variety of earlier researchers like Tarchanoff, Vigoureux, Fère, Ludwig, DuBois Reymond, Vereguth & Rein (Boadella, 1973, p. 130-131), no one had really done this piece of research before, and Reich had to 'invent' the equipment that he used. Subsequently, much more work has been done in this field, but there is rarely any mention of Reich's work in this context. He did not publish in the right places; he was not 'respectable;' and he was off on his own track, and not really interested in building bridges behind him for others to follow. The next researcher named as doing any significant work with GSR was Volney Mathison, in the 1940s, pioneer of the first 'lie-detector' machines.

[2] Shepherd, P. Internet article: Available 3/12/09 from: http://www.trans4mind.com/psychotechnics/gsr.html

[3] Jung, C.G. (1906) 'Studies in Word Analysis.'

[4] Mitchell, G. 'Carl Jung & Jungian Analytical Psychology.' Retrieved 03/12/08 from: http://www.eden.rutgers.edu/~vinceli1/425/individuation.htm

From this GSR research, Reich moved even deeper into the field of pure science, and also made it even more difficult for other people (including scientists) to follow him.

> *He now turned his attention and concentration in a massive way upon the phenomenon of protozoal movement in an attempt to find out if the formula, tension-charge-discharge-relaxation, was a genuinely valid one that applied to very simple life forms. Specifically he wanted to study at first hand the processes of expansion and contraction and fluctuating bio-electric charge in primitive animal and plant forms* (Boadella, 1973, p.136).

This was serious research and, having been turned down for funding by the Rockefeller Foundation in Paris, Reich raised the money from his friends, supporters and his own work, and formed his own experimental institute in February 1936. Again, his research was far ahead of its time as he wanted to study protozoal development, with time-lapse photography, observed through high-powered magnification (far higher than most laboratories of the time). Boadella's description of this research is meticulous and readable (Ibid, p. 137-155), perhaps more so than Reich's own account in **Die Bione** (Reich, 1938). This research was replicated, and independently confirmed by the Académie des Sciences in Paris under Professor du Teil, who also confirmed this with Dr Louis Lapique at the Laboratoire de Physiologie Générale at the Sorbonne. These were both prestigious scientists in very well-known laboratories. Unfortunately other scientists, not so prestigious, nor so meticulous, as well as people who knew nothing about that part of science, detracted and denigrated Reich and his results, as part of a vicious newspaper campaign that was carried out in Norway against him from mid-1937 through 1938. Ironically, in the early part of 1939, just as he was making preparations to leave for America, he made his next 'break-through' when he 'discovered' a radiation effect coming from some of the cultures that should have been sterile. Reich was convinced that this was a form of bio-energetic radiation, or energy. This eventually led into the next area of research work, the 'orgone' energy experiments, once he became established in America.

Reich often said that he had *"discovered too much"* as, besides what has already been mentioned, his later investigations took him into the realms of 'effective' weather control and the beginnings of an understanding about the inimical effects of nuclear radiation. However, his work again came into disrepute in America in the late 1950's because of another vicious press campaign that eventually led to a malicious prosecution by the Food & Drugs Administration, (on the grounds that his Orgone Energy Accumulator's had been advertised as a cure for cancer in **The Cancer Biopathy**). This led to two 'trials' and to imprisonment for contempt of court, and the eventual burning of all his books. He died in prison shortly before his release.

Prior to that, Reich had been sufficiently 'scientific' to interest a number of reputable doctors and other scientists in his 'orgone energy' work, and to correspond with the then 'Father of Science,' Albert Einstein. He was bitterly disappointed when Einstein did not confirm one particular finding (the temperature difference inside and outside an orgone box caused by an accumulation of orgone energy), as he felt that this endorsement would have put his clinical and body-oriented work onto a clear and established scientific basis. But his earlier work on galvanic skin responses, cancer cells, the Reich blood test, and his scientific work on what he called 'bions,' that combined and contributed to his later work on the physical basis of orgone (body) energy, was all exemplary science; was replicated on several occasions; and has never been disproved. The development of Reich's work makes a fascinating account (Boadella, 1973) and also now much is forgotten or ignored, as well as still carrying some stigma. Particular, in the psychoanalytical world, they could not understand his 'scientific' work and started to label him as psychotic, and even (erroneously) that *"he died as a certified psychiatric patient,"* which is later amended (Clare, 1981, p. 77 & 83-4; based on Ollendorf Reich, 1969, p.153-4).

This then is something of the background and history of science in body psychotherapy up to the Second World War. The story is continued in the next part of this series of articles.

APPENDIX 1

Scientific Validation

In order to become a European Wide Organisation (EWO), the psychotherapy method or modality must be recognised by EAP as being "scientifically valid". To do this we require you to provide substantive written answers to the following 15 Questions.

Please provide evidence that the modality:

1. Has clearly defined areas of enquiry, application, research, and practice.
2. Has demonstrated its claim to knowledge and competence within its field tradition of diagnosis / assessment and of treatment / intervention.
3. Has a clear and self-consistent theory of the human being, of the therapeutic relationship, and of health and illness.
4. Has methods specific to the approach which generate developments in the theory of psychotherapy, demonstrate new aspects in the understanding of human nature, and lead to ways of treatment / intervention.
5. Includes processes of verbal exchange, alongside an awareness of non-verbal sources of information and communication.
6. Offers a clear rationale for treatment / interventions facilitating constructive change of the factors provoking or maintaining illness or suffering.
7. Has clearly defined strategies enabling clients to develop a new organization of experience and behaviour.
8. Is open to dialogue with other psychotherapy modalities about its field of theory and practice.
9. Has a way of methodically describing the chosen fields of study and the methods of treatment / intervention which can be used by other colleagues.
10. Is associated with information, which is the result of conscious self reflection, and critical reflection by other professionals within the approach.
11. Offers new knowledge, which is differentiated and distinctive, in the domain of psychotherapy.
12. Is capable of being integrated with other approaches considered to be part of scientific psychotherapy so that it can be seen to share with them areas of common ground.
13. Describes and displays a coherent strategy to understanding human problems, and an explicit relation between methods of treatment / intervention and results.
14. Has theories of normal and problematic human behaviour, which are explicitly related to effective methods of diagnosis / assessment and treatment / intervention.
15. Has investigative procedures, which are defined well enough to indicate possibilities of research.

Further details are available from the EAP website: www.europsyche.org: EWO application form: EAP_EWO_application.pdf;

also in "The SV 15 Questions (expanded)"; and "EWOC Assessment Guidelines"

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Biography

Courtenay Young trained in body psychotherapy about 30 years ago, and has since been working as a psychotherapist. He has been a significant member of the European Association for Body Psychotherapy (former General Secretary and past-President of EABP) for many years, has written much about body psychotherapy, and has attended most of the conferences on body psychotherapy, on both sides of the Atlantic, over the last 15 years. He has met, experienced, or knows personally many of the people and the methods in body psychotherapy that he writes about. He helped establish body psychotherapy as a scientifically-validated psychotherapy with the European Association for Psychotherapy (EAP) and is also a founder member of USABP, compiles the EABP Bibliography of Body Psychotherapy (on CD-ROM), and represented EABP at conferences and meetings of the EAP for about 12 years.

He has now largely stepped out of political work and currently works as a psychotherapist and counsellor in and around Edinburgh, Scotland. He helps edit two psychotherapy journals, and has just completed a book: *"Help Yourself Towards Mental Health"* (Karnac, 2009). E-mail: courtenay@courtenay-young.com.

Mindfulness-Based Somatic Psychotherapy

Ronald A. Alexander Ph.D.
Marjorie Rand Ph.D.

Abstract

The following is a presentation of a new paradigm for healing which the authors have named Mindfulness-Based Somatic Psychotherapy (MBSP). This integrated approach may enable patients to get well faster as they progress through the healing process. In MBSP, emphasis is on patient participation, self-responsibility and an understanding of stress and lifestyle management, affect regulation, and the process of mind-body healing. This mind-body paradigm focuses both on the patient's core sense of self and wellness as well as the patient's presenting problem. These concepts expand the medical/psychological model. MBSP is a multifaceted approach that builds on what is positive in an individual's life and helps people see that relationships, thoughts, feelings, physical experiences and transpersonal awareness are all interconnected and at the core of the individual's ability to promote personal healing.

Keywords

Mindfulness –Based Somatic Psychotherapy – Self-responsibility – Personal healing

Case Study

"Sarah" (identities have been changed) was a woman treated in the authors' clinical practice. Her case is a rather dramatic example of the power and extraordinary healing potential of meditation as the essential first step for a patient to enter into and benefit from Mindfulness-Based Somatic Psychotherapy (MBSP).

The patient is a 34-year-old female artist from Santa Fe who came into treatment after a first suicide attempt. After taking an overdose of tranquilizers and antidepressants, she had fallen into a coma in a hotel room for 48 hours and subsequently been hospitalized for psychiatric treatment. Sarah remembered coming to consciousness in the hotel room and feeling her heart racing and beating to what she described as the point of explosion. She awoke on the cold, hotel bathroom floor to find her face covered in blood. She then plugged in the phone, which she had unplugged 48 hours before, and at that precise moment, a worried friend called her to see if she needed help.

In the psychiatric hospital, the doctors theorized that since antidepressants and tranquilizers were not effectively treating her depression, electroshock therapy was indicated. Sarah did not agree. She called her family for help and was discharged shortly thereafter. Prior to her suicide attempt she had been in psychoanalytic treatment with a psychiatrist who had diagnosed her condition as endogenous depression and had insisted, against her will, that if the treatment was to work it must be accompanied by antidepressant medication. Sarah had accepted the treatment but complained that the drugs served only to increase her depression and feelings of apathy. Eventually, she gave up all hope that psychotherapy would help and took the drug overdose. Upon recovery from her drug-induced coma, Sarah wondered if there was a reason she had not died. The emergency room residents insisted that she had taken a dose large enough to trigger several seizures and were astonished that she showed neither cardiac nor brain dysfunction.

Sarah came to therapy six months after her suicide attempt and announced her intention to attempt suicide again. After the initial interview, her new therapist suggested that she leave analysis and enter treatment focused on meditation. It took her several months to make the transition, but eventually she began the new treatment experience. The new treatment method was centered on somatic psychotherapy, mindfulness or present moment awareness, as well as other mind/body methods including empathic, reflective mirroring of the self in a supportive containing relationship.

As therapy became effective, the patient entered a state of wellbeing and coherence and her depression began to recede. She reported feeling a profound opening of her heart and deep connection to the Divine, Nature and her friends, and to feeling a new core sense of being which was more grounded in her body. In conjunction with her therapy, she began practicing mindfulness meditation. One evening while in meditation class, she entered into a spontaneous altered state of consciousness. She underwent a mystical conversion experience and reported that she had envisioned what Adam and Eve must have seen on the day of Creation. She also said that she felt her body infused with massive light and energy and an ineffable sense of the presence of the Divine, the cosmos and the unitive dimension of consciousness. She remembered telling her friends that this experience was like being with an old dear friend, and had she known about these states of consciousness before she attempted to take her life, she probably would not have done so.

Sarah became more involved in her life. She gained weight, got active in the creative aspect of her work, resumed her friendships at a deeper level and began to put her life back together. At present, she is continuing her study of mindfulness meditation, has resumed her art career and is interested in the relationship between the meditative experience in healing and the psychological process. She is no longer suicidal and is, instead, well, growing and changing.

Sarah is an example of the increased sense of hope for patients when utilizing a somatic and mindfulness based psychotherapy. Her story is by no means unique. In case after case, results show how a patient's attitudes, thoughts, beliefs, feelings and emotions all directly affect the body-mind experience. Physicians, psychologists and other health care workers are opening their minds to the very real possibilities for healing available to them within this new approach.

The Mind, Thoughts and Somatic Therapy

We believe that within all of us lies the potential for tremendous transformation. Modern neuroscience indicates clearly that neural circuits, created daily, are greatly influenced by thoughts, feelings and emotions. Proper nurturing of ideas of growth and healthy expression can effect positive and long lasting changes. Socrates taught that all healing had to include remedies that addressed both the structure and content of the mind and its power to influence the body. Thought is creative and generative. What we think determines our state of health. Focused and clear states of awareness lead to the transformation of consciousness, facilitating behavioral, psychic and somatic change. MBSP results in healing by producing a shift in consciousness.

One of the basic tools of the MBSP process is the practice of mindfulness. Mindfulness is an idea from Buddhism this is central to meditation, but is also a way of life. We meditate in order to become aware of breathing, sounds, bodily sensations or the existence of core self that is not assaulted by an endless stream of thoughts. In mindfulness meditation the instruction is to "notice whatever predominates in awareness, moment to moment."(Siegel, R. 2009). The intention is to explore changing experience. The purpose of mindfulness is to cultivate insight. Another name for insight meditation is Vipassana meditation. However, more important in MBSP is the practice of meditation to establish the habit of mindfulness so that their awareness remains engaged when they function in their everyday lives in the world. They can act consciously instead of unconsciously. The development of mindfulness allows them to become naturally and quickly aware of any situation instead of being distracted by thoughts, feelings and actions. One way to view the healing process is as a transformational journey of discovery and integration of our many discrepant parts into a unified whole. Mindfulness allows us to stop and wonder about new possibilities. With regular mindfulness practice, symbols and messages will come to a person when they are ready to act on them, instead of resisting the truth in order to avoid suffering (Alexander, R. 2009).

Suffering and Change

In Buddhist philosophy, suffering is seen as resisting change. Whether we are ready to change or not, it is important to recognize that change is inevitable. Buddhism refers to this as the law of impermanence. When change is not your choice, you cannot avoid suffering. In MBSP, we view the change as an avenue to personal evolution. Cultivating mindfulness allows us to see our lives as a canvas for self-expression that reflects one's personal passions and beliefs. As in Sarah's case, even when her life shifted abruptly and caused her great suffering; she was able to feel her pain and allow it to dissipate as she let go of the past. This is the creative state of being which can tune in to the unconscious and even the collective unconscious, emerging with fresh and original ideas, passion and inspiration. MBSP draws from the ancient schools of Buddhist mindfulness meditation and the current field of somatic (body) psychotherapy in order to foster transformation become more at ease with the process of change and view transition as positive and exciting.

When we suffer a deep traumatizing pain, we become wounded in a psychic-emotional sense. This very woundedness leads toward growth in an open system by the exchange of energies with the environment. There exists dynamic movement towards a higher unified field of integration, seeking the healing of the wound and the reorganization of the system. Dabrowski (1964) has written of this as the process of positive disintegration, the initial breakdown leading toward a greater level of self cohesion, thus creating in the mind/body system a more solid core sense of self and well being. In MBSP, each transformation makes possible the reorganization and responsiveness of the system. All systems are seen as evolving systems seeking a higher order of evolutionary change, and thus as intelligent organizations seeking both growth and healing. In Sarah's case, the fragmentation of the disparate parts of herself allowed the re-construction, with proper guidance, to a transcendent state of consciousness which she may not have ever reached had she not been introduced to these methods at this time. We do not mean that it is necessary to fall apart in order to become cohesive, but that ordinary therapy should introduce people like Sarah to extraordinary states of consciousness.

In mythology, we refer to this change process as the death-rebirth of the Self— a pilgrimage to internal awakening. This awakening can take place through the struggle toward wellness and health. It demands a commitment of self-examination and of rigorous inquiry into the truth. In this case, the "truth" that one is seeking is a core sense of Self and the actualization of one's own potentialities.

"To see ourselves is ultimately more meaningful than to be told," according to Suzuki Roshi (1970). Obstacles to wellbeing are part of an elaborate internal landscape of mind/body metaphor. Our task is to take up the challenge of a committed and disciplined program of inner re-landscaping for mind/body/core healing. In essence, we heal, grow and transform through the pain of our wounds.

The natural order of change as understood within a mind/body somatically oriented system of psychotherapy is that organisms are self-regulating and are constantly in a dynamic interaction of movement in the natural polarities of expansion and contraction between self-support and environmental support. This view sees the Self as a dynamic part of a higher order of evolution and change. All cellular systems are inherently life seeking. It is natural for the Self to orient and expand toward a core sense of wellness and wholeness. This evolutionary view can also be understood within the Buddhist models of karma and the ongoing sense of impermanence in all change processes that are part of learning, spiritual awakening and healing.

The therapist must be a skillful artisan at helping the patient identify and own those aspects of self-experience which have been disowned, repressed, suppressed or driven underground (introjects). A therapist who practices the art of mindfulness meditation becomes naturally skilled at following the flow of affect and energetic attunement, and cultivates, over time, an improved ability for both self and other focus.

"Learning to observe experience from a place of stillness enables one to relate to life without fear and clinging. One begins to accept pleasure and pain, fear and joy, and all aspects of life with increasing equanimity and balance. Life is seen as a constantly changing process." Jack Kornfield (2001). In somatic psychotherapy and mind/body healing therapies, breathing techniques are used to mobilize the energetic experience of self in the body and to confront the body armoring (fixed muscular patterns, or retroflections). When the bodily defenses give way, the wound, comprised of the underlying fears of abandonment or invasion, is exposed, as in the removal of a bandage revealing the injury beneath. Healing the wound through empathic mirroring, the introjects or unintegrated aspects of the Self can be integrated, leaving the path toward connection to authentic Self-experience more solid, stable and clear (Rosenberg and Rand 1985).

The Function of Transpersonal Experience in the Psychological Healing Process

Sometimes our psychological pain or scars are so deep that we are like malnourished children. When we attempt to feed children after extended deprivation, they need to be introduced gently and gradually to a healthy diet. The same is true of emotional starvation. In order to facilitate the healing process, healthy nourishment must be sought at the table of meditative or energetic consciousness.

It is here at this place of nourishment that an unhealthy or faulty self may experience what the Zen Buddhists refer to as a transcendent state of Satori, or awakening. Satori describes the experience of "ah-ha" as the sudden shifting of the structure of thinking from the personal left-brain linear dimension into the vast right brain of creative consciousness. This creative right brain is a reservoir of internal resources that can be utilized by the self for healing, learning, growth and development; for promoting change and dealing with negative dysfunctional attachments of thought and feeling that the ego struggles with in its everyday suffering.

This transpersonal experience that one may attain through the process of mindfulness meditation is an expansion of consciousness and deepening of the capacity for both interior and exterior focus and observation. Meditation changes a person's perspective of her own narrow experience, and allows for greater joy, aliveness and purpose. Muscular defenses are loosened and the energy of the self is allowed to flow freely. The person can feel connected not only to her personal self, but to a vaster energetic field of self-experience—to vitality, wellness and restorative life flow. People often feel the need to express themselves creatively since energy is now released from the tension of repression and available for expression of the Self. This profound alteration in consciousness is greater than a change in behavior alone or insight into one's personal self as it opens pathways in the mind and the brain. It makes possible a total and completely new psycho-neurological consciousness imprint (Davidson 2000).

When the neuro-physiological blocks (fixed muscular, energetic and breathing patterns) are released, the person is truly transformed in thought, feeling, experience and action. Here we are referring to what Reich called "armor", the function of which is to protect the person from feeling the pain of their wound. While armor is defensive in nature, it blocks the flow of life force within the body/mind, which we believe is necessary to heal the wound. MBSP is somatically based because we use mindfulness as a tool to experience and then release this bound energy. When this happens we call it the death/re-birth process. Energy and feeling are no longer bound in obsolete defensive belief systems and behaviors, and are therefore available to support the self-healing process. In this model, one develops the personal self first and transcends that personal self second. No matter what damage there has been to the personal self, the reservoir of the Self's healing energies always stays intact. The key is to enable the patient to discover her own unique and private accessing codes into the transpersonal dimension. When people are cut off from this potentiality, the development of both the ego self and the transcendent Self may become limited and constrained. However, when they have freedom to access new channels of vitality and growth of consciousness, then it is possible to restore to the self the experience of harmony, integration and wellbeing.

One powerful method to access this energy is through breathing. There are many breathing techniques: Reichian, Yoga, Tai Chi, Zen and many more. The necessity is to find a combination of techniques that work on different levels and on different states of body and mind. Each technique can produce different results: some excite, some calm, some focus, some diffuse. The person needs to be taught which techniques are best for her and when to use them. Body oriented psychotherapy may employ a number of breathing modalities; the combination tailored to the individual's unique patterns and needs (Rosenberg and Rand 1985).

Meditation, too, is an essential tool in this accessing of healing energy. When people pray, worship, meditate or contemplate, they become more vitalized and energized, thereby enabling them to work at the task of peeling back the layers of the body/mind like an onion, accessing deeper and deeper levels of strength and well-being. A regular practice of meditation is necessary to insure continued growth. The meditative mind is like a muscle. If it isn't used on a regular basis, it becomes weak and lethargic. Therefore, the person needs to discipline herself on a consistent and regular basis to practice the art of expanded consciousness. Just as releasing physical energy through opening fixed muscular patterns in the body allows for healing, mindfulness practice creates new neural pathways for healing the body/mind (Siegel, D. 2007). MBSP integrates these two powerful modalities for a greater transformation and integration of the Self.

The bodies of knowledge surrounding the meditative disciplines and the libraries of spiritual literature contain the best maps for the exploration of expanded states of consciousness. These maps equip one to journey into the meditative realms with ideas, images and technologies that are key to unlocking the doors of perception.

In the practice of holistic somatic psychotherapy, we have found mindfulness meditation to be a most practical and efficacious adjunctive method. For self-healing, we will discuss Vipassana, or insight meditation. In the simplest terms, Vipassana meditation consists of the experiential observation of mind and matter, an exploration of one's own consciousness. In Vipassana meditation, a person learns to monitor or track the flow of one's moment-by-moment experience, developing her concentration and deepening her awareness. It is through this process of sustained observation and awareness, along with breath practice, that one develops the capacity to see more clearly into each moment, to be more fully aware and present within the moment as it arises. The meditator over time develops the ability to move from the process of observing the contents of the mind to a more detailed inquiry, looking into the nature of mind itself. Vipassana meditation seeks to develop the objective self-observer, also know as the witnessing mind, and to see reality and the self from a more objective and detached, yet minutely detailed, perspective. Seeing clearly into the contents of one's mind and into the moment as it arises, leads to the collapse of the subject/object duality—the experience of no separation between the meditator and the state of meditation. With this consciousness, there is a phenomenological shifting from I-centered awareness towards the non-dual perspective of awareness of that which is ever-present, always existing and ongoing even in deep, dreamless sleep.

Here we will discuss two types of Vipassana meditation. The first method is a focusing of the meditator's mind on the process of breath counting and/or inhalation and exhalation. Concentrating on her breath, the meditator places her awareness on the tip of her nostrils and attends to the awareness of the breath as it enters and leaves her body. The meditator may silently repeat the words "rising" and "falling" or "in" and "out." This practice helps to cultivate a proficiency of heightened concentration in order to study, reflect and examine states of awareness moment by moment.

The second method of Vipassana utilizes the technique of examining the body/mind process through a detailed monitoring and labeling of present-centered experience. An example would be the making of mental notes as internal phenomena rise to awareness—a precise, silent noting, without interpretation or judgment, of inner processes as in the following sequence: thinking, thinking, feeling, feeling, smelling, smelling, hearing, hearing, tasting, tasting, sound, sound, etc. This is called Bare Attention with Noting of Mind Moments. The meditator is instructed to probe deeply into the place from which these phenomena arise in order to cultivate understanding or insight and consequently become capable of learning to detach from awareness arising during this activity. After a period of time, the person develops a state of mindfulness; i.e. the person has become aware of her moment-by-moment present-centered experience, including all body/mind patterns, and is then able to make a conscious choice to detach or dis-identify from those patterns.

We see traditional psychological approaches, whether they be analytic, psychodynamic, Gestalt-relational, cognitive behavioral or humanistic, as useful for the diagnosis of personality disorders as well as effective for accomplishing the goals of personality and self-restoration, and corrective emotional experience through treatment of self-disorders, healing trauma and overcoming abuse. On the other hand, the transpersonal or meditative disciplines function to deepen and create a progression (inclusion) of dis-identified psychological experience along a continuum that leads the client to open pathways towards transcendent and higher order change. When these approaches are used in conjunction with each other, the self and its life issues are seen in an integral model of development upon all levels, in all quadrants and along all lines viewed to include the gross, the subtle, the causal and, finally, non duality

Conclusion

Therefore, we see the need for exploration of the transpersonal-mystical aspects of the Self as equally important to the exploration of the ego and personal unconscious. This exploration must accompany the effort of probing deeply into the psyche in order to uncover the reservoir of untapped states of wellness, harmony and cohesion contained therein and to help foster the ongoing cultivation of personal wisdom and knowledge. In this state of integrated awareness, energy is made available not only for healing, but also for higher order self-functioning and for the restoration and development of the facility for creative expression in the world. It indicates that in the future, psychotherapy will unlock the healing forces of the body and unleash the vast potential of body wisdom, self-health and knowledge that is contained within the core, or creative unconscious, and make it possible for us to elucidate the meaning of illness and wellness by understanding the human being as an evolving, integrated, mind-manifesting species**.**

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Biography

Ronald A. Alexander, PhD, MFT, is a psychotherapist and longtime Buddhist practitioner ordained as a lay Zen Buddhist. Ron has studied Zen, Vipassana, Tibetan (Dzogchen) and the non-dual approach to consciousness awakening since 1970. He is the Founder and Clinical Director of the Open Mind Training® Institute in Santa Monica, offering Mindful Awareness training programs in Integrative mind-body psychotherapies, Transformational Leadership, and Mindfulness Awareness practices. Ron teaches clinical training groups for professionals, nationally and internationally, integrating Buddhist psychology, somatic psychotherapy and Ericksonian mind-body healing. He is the author of *Wise Mind Open Mind: Finding Purpose and Meaning in Times of Crisis, Loss and Change (2009).* He can be reached at zendoc@ronaldalexander.com.

Marjorie L. Rand, Ph.D., MFT has been a licensed psychotherapist for 34 years. She was a dancer and dance/movement therapist, before becoming a somatic psychotherapist. Her influences have been Gestalt, Sensory Awareness, Zen Meditation, Hsin Tao, Tai Chi and Yoga as well as object relations and Self Psychology. She was a founding member of USABP in 1996 and has served on many committees and boards of USABP. She founded twelve Integrative Body Psychotherapy Institutes with Jack Rosenberg and has co-authored three books and many published articles, including *Body, Self and Soul* in 1985 with Jack Rosenberg, *Getting In Touch* in 1997 ed. Christine Caldwell, and *Helping The Helper* in 2004 with Babette Rothschild. She can be reached at Marjorie@drrandtherapy.com.

The Self Behind the Symptom:
The Energies of Inner Selves and Body Symptoms

Judith Hendin, Ph.D.

Abstract

This study examines the process and effectiveness of healing physical symptoms by accessing buried inner selves and letting their pent-up energy flow through the body. Research on 212 client symptoms showed that 193 symptoms, or 91%, divulged a buried shadow part, a "self behind the symptom." Each of these buried selves carried a specific, discrete energy. Voice Dialogue offers a general tool for body psychotherapists. The author has developed a protocol that begins with a physical condition and finds the buried self, with its particular energy, that often leads to symptom disappearance or improvement. When this particular energy flowed, the analysis of a sub-selected group of 144 client symptoms showed that 85% of symptoms disappeared or improved. These results indicate a potential for coping with the current "epidemic of mindbody disorders" (Sarno, 2000).

Keywords

Voice Dialogue – The Psychology of Selves – Conscious Body – Healing-Energy – Jungian

INTRODUCTION

Practitioners of body psychotherapy may often observe that physical symptoms improve or heal with inner work. This paper presents the results of a 10-year analysis of the effects of the energies of inner selves on physical symptoms. Part 1 offers the theoretical background and its relevance to body psychotherapists. Part 2 presents the analysis.

Theoretical Background:
Voice Dialogue, the Psychology of Selves, and the Body

THE INNER WORLD OF SELVES

Voice Dialogue and the Psychology of Selves, developed by clinical psychologists Hal and Sidra Stone, Ph.D.s, is a tool for developing consciousness and self-knowledge. It is used widely by psychotherapists, health care practitioners, and laypeople around the world (voicedialogue.org). Voice Dialogue has strong Jungian roots. In the Voice Dialogue framework, the personality is seen as being composed of selves, also called parts or subpersonalities. Each of these selves feels, thinks, and behaves in a particular way. *While there are a number of ways to work with subpersonalities, one of the things that sets Voice Dialogue apart from other approaches to parts work is that each of these selves has a distinctly different energy.*

In the worldview of Voice Dialogue, each person identifies with particular dominant selves that are experienced as the individual's operating personality. According to Voice Dialogue, parts that a person identifies with are called "primary selves." Jung called these "persona." Each primary self has an opposite that is called a "disowned self." Jung called this the "shadow." If Paul says, "I am a hard-working, intellectual, responsible man," he is describing three of his selves, which can be called the Pusher (hard-working), the Rational Mind (intellectual), and the Responsible self (responsible). Paul may not be in touch with the opposite energies, which could be called Relaxed, Emotional (or Sensual), and Carefree.

If Paul yearns to take a day off, or fantasizes about a Caribbean vacation at a spa resort, these imaginings are the calls of disowned selves. He may hear these disowned selves whispering, but may be unable to access them. While Paul may yearn to let his disowned selves live, his primary selves may not allow it. Primary selves are strong; they take charge of the personality. Primary selves protect underlying vulnerability: Paul must earn a living, and he's got to meet his responsibilities. Who has not gone on vacation, wanting to rest completely, only to find herself or himself catching up on work? The primary hard-working, rational, responsible selves often collaborate on our vacation plans.

Voice Dialogue helps people experience the energies of the many parts within. In a Voice Dialogue session, a facilitator sits across from a client, and together they discuss current issues and the selves that might be involved. Then, the facilitator guides the client to move over to a new physical position. This encourages the emergence of the energy of that self. The facilitator then engages the self in dialogue and encourages the full expression of its energy. The facilitator never judges or tries to change a self. Voice Dialogue is a non-pathologizing approach to inner work.

The focus of this research is on how the energies of these subpersonalities affect the body. It is well-known that release of emotions may improve or heal physical symptoms. What is less well-known is that energies other than emotions can strongly

affect physical symptoms. When the Pusher speaks, the brow may furrow, shoulders may tighten, and speech may come quickly and anxiously. "There's so much to do, I don't know how I'll ever get it all done," the Pusher may lament. When the opposite self, the relaxed one, speaks, the energy is markedly different. The Relaxed self's face loses its wrinkles as it stretches out its legs, takes deep breaths, and speaks slowly. It may yawn, "I'd love to rent a stack of videos and flake out on the couch all day without a care in the world. That's living!"

One of the aims of Voice Dialogue is to develop the capacity to stand in the middle of a pair of selves and hold the "tension of the opposites," as Jung said. In this central position, one begins to develop an "Aware Ego" process that stands between opposite energies, embraces them both, and exercises choice. For Paul, entering an Aware Ego process between Pusher energy and Relaxed energy would give him this capacity for choice. Without an Aware Ego process, the primary self operates by default—Paul's professional briefcase comes along on vacation. With an Aware Ego process, Paul would have a new center and new options.

Voice Dialogue can be of value to body psychotherapists as a way of identifying energetic components that arise in inner work. Some of these selves appear so often that they have been given names, such as the Pusher, Rational Mind, Inner Child, or Inner Critic. Others arise that have no particular name but have a distinctive energy and point of view in the moment.

In situations where clients are poised to uncover strong emotions or new territory, this energetic pathway may offer potential for expression. Once clients become accustomed to identifying their primary selves, they become more open to discovering more reclusive, hidden selves. Voice Dialogue allows therapist and client to monitor the interplay of opposing forces and honor both sides.

EMILY'S HEADACHE

The following is an example from my practice that illustrates the effect of the energy of a self on a physical symptom.

Emily, the branch manager of a local bank, slunk into my office with her head pounding.

"It's been a long day, lots of pressure and decisions," she explained. "My head throbs at the end of a day like this."

"Something inside you may be trying to get your attention," I said, "as if a person is tugging at your shirtsleeve, saying, 'Please come find me.' I guarantee that whatever this 'someone' is, it will enrich your life and may even heal your body."

She screwed up her eyebrows. "Shouldn't I just take my usual pill?"

"That is up to you," I answered. "But wouldn't you rather handle the headache without putting a chemical into your body, just using natural means?"

"What's involved?" Emily asked.

"We're going to assume that energy needs to shift so you feel like a different 'you.' Your headache might lessen or even disappear."

I instructed Emily to lie down and relax. Then I said, "Tune into the headache, into its energy. Do you get any image or message?"

"I'm sensing something yellow. What on earth is that?"

"Your unconscious is percolating with symbols that are leading you somewhere," I answered. "Stay with the yellow and notice whatever happens next."

"I'm feeling loose. That's weird; I'm feeling silly and frisky."

"Why don't you let that energy fill your body for a moment?" I encouraged her.

"You're kidding."

"It was not my idea, Emily. The notion of friskiness came from your headache. Why don't you trust your body and try it?"

"All right," Emily said as she rose. She put her arms in the air and took a few dance-like steps side to side.

"You look a little frisky," I said.

"Yes, I feel it," she smiled. For a few moments we frolicked. We grinned and laughed together. Then I asked, "How is the headache?"

"Good grief, it's gone," she said. And it stayed gone for the rest of the hour. (This example and those that follow are excerpted from the book, *The Self Behind the Symptom: How Shadow Voices Heal Us*, 2008.)

THE SELF BEHIND THE SYMPTOM

Beginning in 1992, when a client would come to a session with a physical symptom, if it did not respond to manual therapy, I began to explore the energy of inner selves. Clients' symptoms often resolved. A muscle that had been locked with tension unwound. A rash cleared. After several years I worked with more serious symptoms, with similar results. A cyst did not show up on the next sonogram. The insomniac slept. Sexual potency returned. Panic attacks abated.

Margaret was an intelligent, kind wife and mother who would never speak roughly to anyone. She had been unraveling her childhood memories of physical, sexual, and emotional abuse, and she began to have panic attacks. One day Margaret had a panic attack in the middle of our session. I asked if I could put my hand on her heart. She agreed, and I felt it racing. I suggested

she be open to any images or messages that came from the panic attack. Images arose that led to her Wounded Child. This Child was full of rage at what had happened to her. She stood up and, for the first time in her life, Margaret let that part speak.

At first the Child whispered very quietly, "Stop it, get out of here, I wish you'd drop dead."

"That's good," I encouraged. "You're saying this out loud. Yet those are very strong words, and I wonder if you were saying them to someone, would you be whispering?"

"I guess not," said the Child. So it repeated the words, this time at the volume of a normal speaking voice.

"That's better," I said, my hand still on the racing heart. "But if you were saying words like that to someone, how loud would you really be?"

The Child inhaled deeply and then with every decibel it could muster, yelled, "STOP IT! GET OUT OF HERE! I WISH YOU'D DROP DEAD!" The heartbeat normalized instantly.

Margaret felt it. "What just happened?" It is very simple: the disowned self had spoken. Through the panic attack, the bodypsyche had led beautifully and unerringly to the self behind the symptom that needed to express itself. Once this self was honored, it no longer needed to cry for life through the fast heartbeat.

As I worked with various conditions, primary and disowned selves kept surfacing. Following the energies, we found the "self behind the symptom"—usually disowned—and when its energy suffused the body, the symptom often disappeared. The energy was sometimes emotional—grief, rage, fear, joy—but often it was something different. It was always the distinct energy of a disowned self, like Emily's friskiness.

TO SHIFT THE ENERGY, SHIFT THE SELF

On a rainy Saturday, Jessica hobbled through the door and plopped down on the couch. "My knee went out again," she moaned. "I was just stepping off the curb and it buckled right under me."

"I wonder if you'd like to see if anyone in you wants to talk?" I said.

Jessica was a kind, gentle woman. Though she had recently been promoted to a managerial position in a Philadelphia public relations firm, she had trouble exerting her authority. She spoke in soft tones and seemed more like a wise woman than a manager. Some energy was missing, and it made its appearance this day in a form that suited Jessica's character beautifully. As she relaxed and focused on the knee pain, Jessica got an image of a male figure promenading in a castle. "You can call me Prince Michael," he said. As in a fairytale, Jessica met her prince that afternoon—not her romantic prince, but the royal male energy within herself.

Michael said he would stride through life and would speak with authority. He imagined himself sitting on a throne holding court, addressing the peasants with kind nobility. He made wide gestures of blessings to them as he thanked them for their loyal service. He bowed before he departed our session.

Prince Michael ignited in Jessica the fire of power—not power over anyone, but a noble power that complemented her gentle kindness. As she began to incorporate this energy, her life started to change. The positive male force within her was her medicine. Her knee healed right away.

Here is another example of the self behind the symptom:

Geraldine had been plagued with depression for a decade. After her husband's death, she was given medication to lift her spirits, but it only helped to a degree. Even so, Geraldine led an exciting life, full of creativity and entrepreneurial spirit. She opened her own antique shop. She hired a manager to oversee it and a marketing expert to spread the word. When I met Geraldine, she was gestating ideas for still more new projects.

One might admire Geraldine's verve, but from another viewpoint her life was overflowing with too much special energy. She never allowed herself to indulge in any ordinary behavior, like curling up at night and reading a good book. Even sitting around drinking a cup of coffee was anathema to her.

As Geraldine started to see that ordinary activity was acceptable, the burden of being special was released. Her ordinary self became her medicine. Her depression began to lift.

Finally, here is Matthew's story:

Matthew, a young professional man, faced a bleak prospect: a potentially terminal lung disease. There was no known cause, the doctors said. Matthew came to me for a second opinion from his selves.

In our session he lay down, deeply relaxed, and tuned into the energy of the lung disease. He waited for images to appear.

Suddenly he began to sense a "scary sadness, like an empty, black hole."

"Tell me more about this black hole," I said.

"There's a coffin. It's only about an inch wide," said Matthew.

"That is a very small coffin," I said. "Is anyone inside?"

"Little Matt is in there. He's holding back his tears," Matthew said. Then came the realization that Matthew had held back his sadness ever since childhood as a way to protect his over-burdened mother. We had heard an Inner Child, the self behind the symptom. It deserved a lot of care now so he could cry those held-back tears. The symptom—lung disease—led to a symbol—a tiny coffin—which led to the self behind the symptom—a sad Inner Child who had tried to save his mother from too much responsibility.

DISCOVERY

During a decade of exploring selves and physical symptoms, a map developed for finding the self behind the symptom. It is not within the scope of this paper to fully describe the map. In short form, the client who wishes to search for underlying psychodynamic factors in a body symptom goes through several steps:

1. Preliminary intake allows the Rational Mind to speak. (Voice Dialogue treats the Rational Mind as a self.) The client tells the history of the symptom, such as test results and healing methods tried. He or she also shares any ideas about the underlying cause of the symptom.
2. Using the Voice Dialogue method, the facilitator speaks directly with the part of the client that does not want to go forward. I call this energy the Gatekeeper. This allows "resistance" energy to have a voice. When this occurs, the process moves forward more freely.
3. Then deep relaxation allows symbolic images, sounds, or kinesthetic sensations to arise.
4. Facilitator and client collaborate to follow these energetic clues until they arrive at a self. This self is usually disowned. It has often been buried for a long time and is eager to express.
5. At almost the same moment, the energy of an opposite primary self often appears. It expresses concern about allowing the energy of the newfound, disowned self to emerge. The facilitator honors these concerns.
6. If permission is granted by the primary self, the facilitator encourages full energetic expression of the disowned self.
7. Facilitator and client together track any change in the symptom and pursue the life changes that the energy of the disowned self offers.

Finding the self behind the symptom is a delicate, sophisticated process that involves energy sensitivity. Once one understands the elements, the energies behind symptoms become evident. Working with the energy of body symptoms offers an opportunity for growth. Any physical healing is a bonus.

The Research:
An Analysis of Conscious Body Client Records Over 10 Years

METHODOLOGY

Clients

Altogether, 144 people were included in this study. 85% were female, 15% were male. The clients in this study had opted to have individual sessions or to attend workshops, therefore it is likely that they were interested in knowing themselves better. The predominant ages were between 30 and 50 years old.

Table 1.

Age of Client		
Years	Number of Clients	% of Total
Under 20	1	1%
20-29	11	8%
30-39	58	40%
40-49	43	30%
50-59	23	16%
60-69	6	4%
70-79	2	1%
Total:	144	100%

Symptoms and Issues

In the early years of this study, clients predominantly presented musculoskeletal symptoms, pains, and skin problems. Later, clients brought more serious illnesses. Clients also worked with bodily experiences that accompanied certain feelings and behaviors.

Table 2.

Symptoms and Issues		
Body Symptoms		Number of Occurrences
	Musculoskeletal	41
	Pain	22
	Intestinal	16
	Skin	16
	Cancer	11
	Respiratory	8
	Fatigue	7
	Female Reproduction	7
	Insomnia	6
	Heart	5
	Cold/Flu	4
	Connective Tissue	3
	Cyst	3
	HIV	3
	Male Sexual Dysfunction	3
	Dental	2
	Ear	2
	Eyes	2
	Allergies	1
	Arthritis	1
	Diabetes	1
	Digestive	1
	Hair	1
	Parkinson's	1
	Swelling	1
	Thyroid	1
	Tremors	1
	Urinary	1
Bodily Experiences Associated with Certain Feelings and Behaviors		
	Mood Issues (depression, anxiety, and fear)	16
	Substance Use	9
	Panic	7
	Childhood Abuse	4
	Injury Due to Accident	3
	Dissociation (disconnection from body or environment)	2
Total		212

Data

The data for this study were collected from my therapeutic practice and trainings I conducted spanning a period of 10 years, from the beginning of 1995 to the end of 2004. There were a total of 212 symptoms distributed among 144 people. The data were collected from three sources: single client sessions in my private practice, multiple sessions, and sessions conducted within trainings. The data were collected in the form of subjective reports spoken by the client. Each session was one to two hours.

Record Keeping

Sessions were often so non-linear and surprising that neither the client nor I could have remembered them if they had not been recorded. In all cases, note taking and audio recording were done with permission of the client. Records of sessions took several forms:

1. In private practice:
    a. Therapeutic notes taken during sessions
    b. Notes written immediately after sessions
2. In trainings:
    a. Therapist's notes
    b. Notes taken by a volunteer; notes reviewed and clarified by therapist
    c. Audiotapes, later transcribed

The quality of notes changed over the years. Notes taken during the early years were more general. Notes taken in later years were focused on specific energetic elements. This shift in records reflects my developing understanding of the various energies of selves as they related to body symptoms.

Categories of Selves

There is a significant difference between what actually unfolds in a session, and the categorization of that session's content. Categories cannot capture the poignant, radiant, scorching, seething energies of buried selves that emerged within sessions. However, it was important to wrangle these energies into categories for the purpose of this analysis. For example, a self that emerged from a body symptom raced around the room, terrified, looking for place to hide; it said it felt like it was four years old. This self was categorized as a Frightened Child. Another self emerged that imagined being naked in the woods, wanting to dance, eat, and make love. This self was categorized as Sensuality.

RESEARCH ANALYSIS

I asked the following questions of the data:

1. How Often Did a Self Behind the Symptom Emerge?

A major question was: how often did the energy of a self emerge from a body symptom? In other words, how often did clients discover an underlying issue that could be interpreted, by the researcher, as a self? Out of 212 total symptoms, in 193, or 91%, a self appeared.

Table 3.

Was There a Self Behind the Symptom?		
	Number of Symptoms	% of Total
Yes	193	91%
No	15	7%
NA	4	2%
Total:	212	100%

2. What Was the Identity of the Self Behind the Symptom?

Fourteen different selves emerged more than once from 193 symptoms. Twelve other selves emerged one time each. For ease in understanding the following table, here are energies that may require some explanation:

- Emotions are treated as selves in this approach. Doing so allows the facilitator to speak directly with the emotion, as well as with the voice that may not want that emotion expressed.
- The Inner Critic is the inner voice that criticizes us. (See Hal and Sidra Stone's book, *Embracing Your Inner Critic*.)
- The Inner Patriarch is the male voice *within* women that echoes the voice of the *outer* patriarchy. (See Sidra Stone's book, *The Shadow King: The Invisible Force That Holds Women Back*.)
- The Gatekeeper is the voice that does not want to move forward in the realms of inner work, the expression of emotion, or the retrieval of painful memories. The Gatekeeper can manifest as a physical symptom, such as shaking or coughing. Commonly labeled "resistance," this approach speaks with the Gatekeeper respectfully, honors its concerns, and enlists the Gatekeeper's aid.

The following chart indicates that two selves, the Inner Child (30%) and Memory (15%), comprise nearly half of all the selves that emerged. Researcher bias and therapist bias are difficult to eliminate. Nevertheless, the high percentages in the first two categories indicate a noteworthy development that merits further investigation.

The findings here probably reflect the serious issues that individuals were bringing to a therapeutic setting. Please note that investigations into body symptoms can often reveal selves of a less serious nature.

Table 4.

Identity of the Self Behind Symptom		
	Number of Symptoms	% of 193 Symptoms
Inner Child	58	30%
Memory (mostly of childhood abuse)	29	15%
Emotions	12	6%
Fear – 5		
Sadness – 4		
Anger – 3		
Cares for Self (the opposite of Caretaker of Others)	11	6%
Straight Talker (opposite of Pleaser)	11	6%
Being (opposite of Doing)	10	5%
Inner Patriarch	10	5%
Need for Power (all these cases were women)	10	5%
Freedom and Life (opposite of Responsibility)	8	4%
Inner Critic	7	4%
Sexuality and Sensuality (opposite of Rationality or Propriety)	6	3%
Playful (other than Playful Child)	4	2%
Gatekeeper	3	2%
Need to Move Beyond Gatekeeper	2	1%
Other	12	6%
Totals:	193	100%

In this sample of 193 symptoms, the Inner Child appeared most often. The following table indicates the types of Inner Child energy that emerged. The fact that the first two types of Inner Child comprise 42% of the total is noteworthy and raises questions about why this number is so high. This merits further investigation.

Table 5.

Different Inner Children That Emerged		
	Times it Appeared	% of Total
Wounded/Abused	12	21%
Alone/Unloved/Unwanted	12	21%
Sad for Other Reasons	8	14%
Frightened	7	12%
Playful	7	12%
Craves Touch/Cuddles	6	10%
Other	6	10%
Totals:	58	100%

3. Did Symptoms Change?

Clients reported any change in their symptoms either in the same session, in the next session, or in a subsequent session. Client reports on any change in their symptoms were classified as follows:

- Disappearance of symptom. Example: A young woman had never had her period except during two years when she took birth control pills. After one session, her menstrual cycle began.
- Improvement. Example: A man with soreness throughout his body did a session and said afterward, "There is still some soreness, but I feel better."
- No Change. Example: A man who had childhood polio did sessions to address his pain and his pronounced limp. Sessions did not bring any change.

Of the original 212 symptoms, the number was reduced to 144 symptoms for two reasons. First, several clients worked with more than one symptom. Realizing that this might bias the data because a person who worked with several symptoms might get better at the process or might be drawn to the process because they were good at it, I chose one symptom for each person. The choice was based on the importance of that symptom for that individual. For example, if a person dealt with a major health problem as well as a one-time flu, the major health problem was chosen.

The second reason for the reduction to 144 symptoms involved people with whom I had no follow up. These were either training participants with whom I had no contact after the training, or clients who came for only one session. If the symptom did not change immediately, I had no report about the effect of the work on the symptom. Therefore, these cases were dropped from this portion of the analysis.

For the analysis of symptom change, the total, then, was 144 people. Of these, results showed 63% of symptoms disappeared, 22% improved, and 15% did not change.

Table 6.

Did Symptoms Change?		
	Number of Symptoms	% of 144 Symptoms
Disappearance of Symptom	91	63%
Improvement	32	22%
No Change	21	15%
Totals:	144	100%

As said above, of the original 212 symptoms, 144 were used in this analysis—a difference of 68. These 68 symptoms are included in the table below and are labeled "Don't Know Results/Other Symptoms of Same Clients." Consistency requires that all 212 original symptoms be accounted for. I assigned the 68 symptoms the value of "no change." This resulted in the following conservative estimate of changes: symptom disappearance—43%; improvement—15%; no change—42%.

Table 7.

Did Symptoms Change?			
	Number of Symptoms	% of 144 Symptoms	% of 212 Symptoms
Disappearance of Symptom	91	63%	43%
Improvement	15	22%	15%
No Change	21	15%	10%
No Change: Don't Know Results/Other Symptoms of Same Clients	68	-	32%
Totals:	212	100%	100%

4. How Long Did It Take for a Symptom to Disappear?

Of the 91 symptoms that disappeared, how long did this take? For almost half (46%), symptoms disappeared in a single session, 11% took two or three sessions, and 12% took four to five sessions.

This analysis suggests that, using this approach, there is a strong chance (69%) that symptoms may disappear within five sessions. In 31% of the cases, more extensive time is required.

Table 8.

How Long Did Symptom Disappearance Take?		
Number of Sessions to Symptom Disappearance	Number of Symptoms	% of 91 Symptoms That Disappeared
1	42	46%
2 – 3	10	11%
4 – 5	11	12%
6 – 10	13	14%
Unclear in records	15	17%
Totals:	91	100%

5. How Did Certain Symptoms Respond?

Subdividing the sample into symptom groups makes the numbers in each group so small that the results are not statistically significant. That said, it was clear that certain symptoms responded well. These included musculoskeletal conditions, general pain conditions, intestinal problems, and skin conditions. Although the samples were quite small—only 5 and 3 cases, respectively—symptom disappearance was also seen in insomnia and male impotence. No analysis was possible of the many symptoms for which this study had only one or two examples. The issue of how well any symptom responds to this approach merits further investigation.

DISCUSSION

The study and its results can be summarized as follows: A self-selected sample of clients with a wide variety of bodily symptoms participated in a process called Conscious Body. The great majority of the clients experienced the essence of the method, that is, the discovery of a hidden part, or self, such as a suffering Inner Child. Afterwards, these clients reported to the facilitator their subjective perceptions regarding changes in their symptoms, and a majority of the clients reported discontinuance or improvement of their symptom. No control subjects or control group were used, nor any long-term follow-

up implemented. In such a research situation, even though the facilitator-researcher attempted to be as objective as possible, it is conceivable that the clients may have reported, and the researcher may have interpreted and recorded, the client experiences in the expected favorable direction. Taking this possibility into consideration, the results still, by far, exceed any placebo effects (30-40 %) and strongly suggest that some real healing effects took place among the clients. It is conceivable that the self-selection of the clients produced a sample in which the members were more familiar with corresponding healing methods, had more favorable attitudes toward the method, and were more ready to explore their subconscious motivations than a more representative sample taken from the general population.

In further studies of the method, the following improvements in the study design are, therefore, proposed to enhance the representativeness, validity and reliability of the results:

- thorough pre-measurements of the clients regarding their experience of, and attitudes toward, this and corresponding methods
- pre- and post-measurements by a research person not attached to the method (preferably not knowing who received the treatment)
- measurements of an objective nature (e.g., blood pressure measurement)
- inclusion of control subjects or a control group
- long term follow-up over several weeks, even months
- attempts to include a wider variety of clients in the study, such as more males and persons with symptoms which were few in number in this study

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Biography

Judith Hendin, Ph.D., directs the Conscious Body & Voice Dialogue Institute. She is the author of *The Self Behind the Symptom: How Shadow Voices Heal Us.* Judith received her undergraduate degree from the University of Chicago, Phi Beta Kappa, in cultural anthropology. She became a professional dancer, performing with leading concert modern dance companies, including Pilobolus. She received major grants for artistic development and served as an adjudicator on national arts panels. Judith then moved into bodywork, practicing deep tissue structural realignment, energy work, and psyche-soma methods. Twenty years ago she encountered Voice Dialogue and the Psychology of Selves, developed by Hal and Sidra Stone, Ph.D.s, who became her mentors. Judith is considered a senior Voice Dialogue facilitator and trainer, and for the last 12 years she has been integrating Voice Dialogue with the body. She has been teaching Voice Dialogue and Conscious Body in the Netherlands, Belgium, Finland, and Estonia. Judith Hendin gratefully acknowledges Diane Kobrynowicz, Ph.D., for advice during the beginning phase of this study, and Barbara Markovits, M.Ed., in Canada, for critiquing a later version. Unbounded appreciation is extended to Jukka Laitakari, Ph.D., professor of health research in Finland, for expert feedback and suggestions on numerous drafts. Thanks also go to Alice Ladas, Ph.D., and Doug Salvemini for editorial support, and to Jacqueline Carleton, Ph.D., for organizing the acceptance of the article for publication in the journal of the United States Association of Body Psychotherapy. Tremendous gratitude is extended to the clients and training participants who blazed the trial of working with symptoms and the energies of selves. Judith works in Easton, PA, and New York City. E-mail: Judith@ConsciousBody.com,

Part 1. The Adolescent Brain: A Decade of Research

Deborah Harkin, Ph.D.

Abstract

A fundamental assumption of somatic psychology is that the mind and body are not separate but function as one (Reich, 1973). Contemporary theory and research in various scientific disciplines have contributed to our understanding of how the mind and body develop and function together within the evolving self. In particular, principles and findings in the field of neuroscience are increasingly being incorporated into psychology and inform clinical work. Until recently, little was known about the adolescent brain. However, the discovery of complex patterns of growth and change leading up to and continuing throughout adolescence has begun to reshape views of adolescent development and provide new insights into behavior. This article will present an overview of a decade of research on the adolescent brain and examine the evidence for adolescence as a critical period. The implications are discussed. Part 2 in a subsequent issue will focus on clinical applications of the research.

Keywords

Neuroscience – Adolescent Brain – Critical Period – Adolescent Development

Within the field of psychology, infancy and early childhood have come to be recognized as *the* critical period for development. The early environment in which development takes place is understood to exert profound influence on the trajectory of future development and well-being of the individual. Within the field of neuroscience the pre and perinatal period is commonly recognized as the critical period for brain maturation. More specifically, the human brain growth spurt begins in utero during the third trimester and continues through the second year of life (Schore, 2001). Due, in part, to recognition of the importance of early brain development, much attention and considerable resources have been focused on infancy as a critical period, as well as on early intervention. In the last decade, discovery of a secondary growth spurt in the brain leading up to and continuing through adolescence may suggest a second such critical period, with far reaching implications (Giedd, 2003; Giedd et al., 1999).

Critical or Sensitive Periods

In general terms, a critical or sensitive period refers to a specific window of time in which certain experiences are required in order for an organism's potential to unfold. If the appropriate experiences are not provided, development will be compromised. Central to the concept of critical periods is that impairments will be irreversible or only partially reversible (Giedd, 2003; Pearce, 2002; Schore, 1994, 2003; Siegel, 1999; Steinberg, 2005).

In neuroscience terms, a critical period is associated with rapid growth, reorganization and differentiation within the brain and is characterized by the processes of dendritic and synaptic proliferation, experience-dependent neural pruning (parcellation), and myelination. The completion of myelination is generally associated with the end of a critical period.

Different brain structures and systems mature at different rates and within different time frames and therefore have different critical periods. A key aspect of a critical period is that it represents a specific "window of opportunity" that opens and closes according to a particular timetable. During critical periods the brain is thought to be particularly receptive to environmental influences. Because the brain appears to be primed for new learning yet susceptible to the affects of adverse stimuli, a hallmark of critical periods is that they represent a time of both increased opportunities and vulnerabilities (Giedd, 2003; Giedd, 2008; Pearce, 2002; Schore, 1994; Siegel, 1999; Steinberg, 2005).

The Adolescent Brain

Unexpected Discoveries

Until recently there was little interest in studying the adolescent brain because structural development was assumed to be largely complete (Frontline PBS, 2002; Giedd, 2004; Walsh, 2004). By age three all major fiber tracts in the brain are discernible, by age six the brain has reached 90-95% of adult size, and by age twelve it has reached its full volume (Giedd, 2008; Schore, 1994, 2001; Siegel, 1999). In addition, by around age twelve, formal operations thinking, the highest level of cognitive development as originally conceptualized by Piaget, has been achieved (Inhelder & Piaget, 1958; Keating, 2004). Mental development (such as new learning and increased cognitive abilities) was assumed to progress through new connections between neurons and more efficient processing due to progressive myelination rather than as a result of structural changes (Keating, 2004). It was widely believed that during adolescence all that was required was education and experience.

The discovery that revolutionized our understanding of the adolescent brain was, in fact, uncovered quite by accident. When neuroscientist and child psychiatrist Jay Giedd joined a project with the National Institute of Health (NIH) in Washington DC, it was with the intention of mapping the developing brains of children with psychiatric disorders. He began by first attempting to study normal brain development in children and found very little information available. In 1991, Giedd began the first long-term MRI brain scanning study of normal children and adolescents with the goal of establishing a baseline (Strauch, 2003; Wallis, 2004). When Giedd first noticed the numbers that indicated an unexpected increase in gray matter in the brain he thought it was an error—however, further examination revealed unexpected patterns of growth in a number of structures within the neocortex, most importantly the prefrontal cortex (Giedd et al., 1999). In 1999, Giedd and colleagues published findings that would generate a cascade of new research as well as burgoening interest in the adolescent brain within the scientific community and the general public alike.

Changes in Gray Matter Density During Adolescence

The first clue to the changes taking place in the adolescent brain was the discovery of a thickening in gray matter leading up to puberty (Giedd et al., 1999). The brain is made up of both gray and white matter. Gray matter consists of tightly packed neuron cell bodies and their branches (dendrites), while white matter consists of axons emanating from within gray matter that are coated in a fatty insulating substance called myelin. Previous studies using cross-sectional data had identified linear decreases in cortical gray matter between childhood and adulthood, accompanied by linear increases in white matter associated with neural maturation (myelination). (For a detailed list of these studies see Giedd et al., 1999). In contrast, utilizing longitudinal data Giedd and colleagues identified an overall thickening of cortical gray matter that peaked at around age eleven for girls and twelve for boys. The observed preadolescent increases in gray matter were followed by post-adolescent decreases. These findings were significant because the thickening of gray matter is generally associated with the proliferation of dendrites and synapses—in other words, processes that signal the onset of critical periods and the emergence of new capacities. Decreases in gray matter when associated with normal processes of selective pruning (parcellation) reflect the means by which new capacities are refined.

Further examination of the data by Giedd et al. (1999) revealed that the changes in gray matter were regionally specific. They found that growth in the parietal and frontal lobes peaked around age 12, while gray matter continued to increase in the temporal areas until age 16, and in the occipital lobes through age 20. This landmark study appeared to identify not only a previously unrecognized growth spurt but a complex pattern of synaptogenesis and parcellation—processes that parallel those previously thought to take place only during infancy. In the 1999 study, the authors conclude that "if the increase [in gray matter] is related to a second wave of overproduction of synapses, it *may* herald a critical stage of development when the environment or activities of the teenager may guide selective synapse elimination during adolescence" (p. 863)[italics added].

Greatest Changes Occur in the Frontal Lobes

Further research has confirmed the general pattern of gray matter changes observed in Giedd et al.'s original 1999 study (Paus, 2005; Sowell, Thompson, Holmes, Batth, et al., 1999; Sowell, Thompson, Holmes, Jernigan, et al., 1999; Sowell, Trauner, Gamst, & Jernigan, 2002). Sowell and colleagues observed a decrease in gray matter after puberty, with the greatest changes found in the frontal and parietal areas (Sowell, Thompson, Holmes, Batth, et. al., 1999). In a separate study using a broader age range, Sowell, Thompson, Holmes, Jernigan et al. (1999) hypothesized that differences in gray matter between adolescents (12-16) and adults (23-30) would be greatest in frontal regions of the brain because the capacities being developed during adolescence are consistent with maturation of the frontal lobes while capacities associated with other areas are largely mature by adolescence. As predicted, the parietal, temporal and occipital lobes showed little maturational change, whereas dorsal, medial and lateral regions of the frontal lobes showed large group differences.

In both of these studies, decreases in gray matter in frontal areas appeared to be related to increases in white matter. The authors suggest that the apparent loss of gray matter might be the result of myelination rather than the loss of tissue (neural pruning) (Sowell, Thompson, Holmes, Batth, et al., 1999; Sowell, Thompson, Holmes, Jernigan, et al., 1999). Nonetheless, Sowell and colleagues conclude that their findings support the notion that changes in specific brain structures are related to the development of specific capacities and highlight the potential importance of the frontal lobes to the development of adult cognition (Sowell, Thompson, Holmes, Jernigan, et al., 1999).

Subsequent studies have identified complex patterns of change in various regions of the adolescent brain (Barnea-Goraly, Menon, & Eckert, 2005; Casey, Giedd, & Thomas, 2000; Durston et al., 2001; Giedd, 2004; Paus, 2005; Paus et al., 1999; Sowell, Thompson, Holmes, Batth, et al., 1999; Rabinowicz, Petetot, Khoury & de Courten-Myers, 2009; Sowell et al., 2002; Suzuki et al., 2005; Thompson et al., 2000). For example, the caudate, a structure within the basal ganglia associated with mediating higher cognitive functions, attention and affective states, follows a similar pattern of preadolescent increases followed by decreases (Giedd, 2008). The hippocampus, central to memory storage and retrieval, increases in volume during adolescence in both females (Day, Chiu, & Hendren, 2006; Giedd et al. 1996; Sowell & Jernigan, 1998) and males (Suzuki et al., 2005). The amygdala, which assesses the salience of stimuli and influences the encoding of memory, increases during adolescence more significantly in males than in females (Giedd, 2008; Giedd et al., 1996). Differences between the sexes in

amygdala and hippocampal changes have been attributed to the distribution of sex hormone receptors within these structures (Day, Chiu & Hendren, 2006; Durston et al., 2001; Giedd et al. 1996; Giedd, Shaw, & Wallace, 2006). Taken together, the anatomical studies reviewed above make it clear that the adolescent brain is not complete but very much a work in progress.

White Matter Changes During Adolescence

While the evidence suggests that cortical gray matter increases and then decreases (Giedd et al., 1999), recent studies, consistent with earlier research, have shown linear increases in overall cortical white matter during the transition from childhood to adulthood (Blakemore & Choudhurry, 2006; Giedd, 2003; Giedd, 2004; Giedd et al., 1999; Paus, 2005). Although white matter development is generally linear (increasing over time), studies have revealed that changes in white matter (like gray matter) are regionally specific (Barnea-Goraly et al., 2005; Benes, Turtle, Khan, & Farol, 1994; Paus, 2005; Thompson et al., 2000). Research suggests that frontal areas, particularly the lateral prefrontal cortex, are among the last brain regions to mature, with white matter increases continuing into the twenties (Casey et al., 2000; Giedd et al., 2006; Paus, 2005; Keating, 2004). The identified increases in white matter are significant because they reflect progressive myelination within and between various structures, creating faster, more efficient neural connections. On the other hand, myelination is associated with the locking in of developmental gains and a reduction in neural plasticity (Damasio, 1999; Pearce, 2002; Schore, 1994; Siegel, 1999). Full myelination of a circuit or module is associated with brain maturation and may signify the end of a sensitive or critical period.

White matter changes during adolescence have been identifed in a number of brain areas. For example, Thompson et al. (2000) report a pattern of rostro-caudal (front to back) growth in the corpus callosum, a major white matter structure that connects the left and right hemispheres of the brain. As Thompson et al. suggest, the integration of information from both hemispheres is considered essential for higher-level language and cognitive functioning, and continued growth in the callosal isthmus through age fifteen may reflect the fine-tuning of language skills that occurs later in childhood and early adolescence.

Benes and colleagues (1994) identified progressive myelination in the superior medullary lamina (SML) that continues through adolescence and into adulthood. The SML connects the cingulate gyrus (involved in emotional processing) with the hippocampus (necessary for transferring new memory into long-term memory)—in other words, the connection of emotional reactions with historical, contextual thought. Benes et al. speculate that as myelination of this pathway progresses, adolescents may become more capable of emotional regulation and impulse control, as well as develop in the direction of greater cognitive maturity (Benes et al., 1994; Benes interview in Strauch, 2003; Sowell & Jernigan, 1998). Benes and colleagues further note that myelination in the hippocampus occurs earlier in females than in males and may be relevant to gender differences in cognitive and emotional development (Benes et al., 1994).

In a recent study, Barnea-Goraly et al. (2005) found complex patterns of change in white matter density from childhood to adolescence in prefrontal regions, the internal capsule as well as basal ganglia and thalamic pathways, the ventral visual pathways and the corpus callosum. They conclude that there are significant changes in brain regions that are important for attention, motor skills, cognitive ability and memory. As Paus (2005) states, “Smooth flow of information throughout the brain depends to a great extent on the structural integrity and maturity of white-matter pathways” (p. 61). Taken together, the evidence suggests enhanced brain organization during adolescence through faster, more efficient connections within and between various regions of the brain (Keating, 2004; Paus, 2005; Steinberg, 2005).

The Development of Prefrontal Executive Functions and Interregional Interconnectivity

The research regarding gray and white matter changes reviewed above highlights two key aspects of adolescent brain maturation: first, that there is substantial development within multiple regions of the prefrontal cortex, and second, that there is increased connectivity throughout the brain due to progressive myelination (Benes et al., 1994; Keating, 2004; Luna et al., 2001, Paus, 2005, Paus et al., 1999; Sowell, Thompson, Holmes, Batth, et al., 1999; Sowell, Thompson, Holmes, Jernigan, et al., 1999; Thompson et al., 2000). While much attention has been focused on development of the prefrontal cortex because of its executive role in integrating and regulating various brain functions, it is important to note that these executive functions are made possible by expanding connections between the prefrontal cortex and other parts of the brain. It appears that these developments allow for greater integration, more complex processing, and as a result, the emergence of new capacities.

Shades of Gray: The Debate about the Meaning of Relative Gray to White Matter Changes

While there is general agreement about the broad patterns of gray and white matter changes over the course of adolescence, the meaning of those changes is less clear (Casey et al., 2000; Durston et al., 2001; Paus, 2005; Sowell, Thompson, Holmes, Batth, et al., 1999; Sowell, Thompson, Holmes, Jernigan, et al., 1999; Sowell et al., 2002). Scientists debate whether the loss of gray matter represents neural pruning or simply the coating of gray matter with myelin. To the layperson this is a subtle distinction, but it is an important one because it speaks to the issue of adolescence as a critical period.

Synaptic pruning or parcellation is thought to be experience-dependent while it is not known whether myelination is influenced by environmental factors.

A classic series of post-mortem studies suggest that synapse elimination (neural pruning) does in fact take place during adolescence (Huttenlocher, 1979; Huttenlocher & Dabholkar, 1997), while increasing myelination at the border between gray and white matter may also contribute to observed cortical thinning (Giedd et al., 2006). It seems reasonable to conclude that both processes may be occurring. The fact that gray matter changes are non-linear (gray matter increases before decreasing) and regionally specific (Blakemore & Choudhury, 2006; Giedd et al., 1999; Paus, 2005) provides the strongest evidence for adolescence as a critical period. As Giedd (2008) states, "The powerful process of overproduction followed by selective/competition elimination that shapes the developing nervous system *in utero* seems to continue to refine the brain throughout adolescent development" (p. 340).

While most neuroscientists would agree that genetically driven brain development during adolescence is associated with the emergence of new capacities, they do not necessarily agree on the degree to which adolescent brain development is influenced by the environment (Deerin, 2001; Vedatam, 2001). It may be that the development of some structures and systems are driven primarily by genetics, while others are shaped by experience. For example, twin studies suggest that the cerebellum, which undergoes a major growth spurt in adolescence, is highly influenced by the environment, while the corpus callosum is not (Giedd, 2004; Giedd, 2008). Both theory and research suggest that maturation of the prefrontal cortex is experience-dependent (Casey et al., 2000; Schore 1994, 2001a), and it has been suggested that the relatively late and prolonged developmental processes in the frontal lobes may render them particularly susceptible to environmental influences (Casey et al., 2000; Pearce, 2002; Schore, 2001; Siegel, 1999). The degree to which the development of various structures and systems are genetically driven or influenced by environmental influences remains an open question. The intersection between genetics and experience and the timing of potentially critical periods is of particular importance to those studying the origins of various psychopathologies with the goal of designing potential interventions. A great deal of research is being conducted in this area, which will continue to be an important avenue of investigation. For an overview of the current literature on neuroimaging and psychopahthology see Giedd et al. (2006) or Toga, Thompson, & Sowell (2006).

The issue of adolescence as a critical period is an important one. If adolescence reflects a second critical period (or more accurately a series of critical periods), it suggests far greater neural plasticity than previously recognized. Such neural plasticity has profound implications for our ongoing capacity for growth and change. Whether or not decreases in gray matter reflect neural pruning, ongoing structural changes suggest a major reorganization of various structures and systems in the brain during adolescence, along with their associated functions.

The Role of the Prefrontal Cortex

Changes occur throughout the brain during adolescence. However, some of the most dramatic and significant changes appear to occur in the frontal lobes (Barnea-Goraly et al., 2005; Giedd, et al., 1999; Paus, 2005; Sowell, Thompson, Holmes, Jernigan, et al., 1999). The frontal lobes have been implicated in many important functions including: aspects of working memory, the allocation of attention, the capacity for self-regulation, the integration of thought and emotion, the ability to connect past, present and future, the evaluation of potential risks and rewards, response inhibition, and the ability to produce socially appropriate behavior (Casey et al., 2000; Damasio, 1999; Giedd, 2004; Keating, 2004; Schore, 1994, 2001; Siegel, 1999). Most higher order cognitive capacities such as language, abstract thinking, logical reasoning and decision-making, plus the abilities to organize, prioritize and plan have been linked to the frontal lobes (Keating, 2004; Spear, 2008; Steinberg, 2005). Keating (2004) suggests that evidence supports the view of the prefrontal cortex as "a more general synthesizer of experience and governor of action" (p. 49).

The prefrontal cortex has garnered great interest from the scientific community and the general public, perhaps because of its potential for explaining some of the more challenging aspects of adolescent behavior. Characteristics commonly associated with adolescence such as emotional volatility, impulsivity, difficulty planning or envisioning consequences, as well as increased risk taking, may be due in part to incomplete maturation of the prefrontal cortex.

The Relationship Between Structure and Function

While it is difficult to relate structural changes in the adolescent brain directly to specific cognitive advances or behaviors, a growing number of studies demonstrate that the brains of adolescents function in ways that are fundamentally different from those of adults. For example, a study by Baird, Yurgelen-Todd and colleagues suggests that adolescents and adults process emotional expression differently (Baird et al., 1999; Spinks, n.d.; Yurgelen-Todd interviewed in Strauch, 2003). In a task requiring participants to view images of faces and identify emotions, fMRI brain scans showed that in children and adolescents the amygdala became highly activated when viewing frightened faces, while frontal areas were more active in adults. The amygdala is associated with instinctive or "gut reactions" such as fight, flight or freeze, while frontal areas allow for more complex processing, the ability to make subtler distinctions between emotions, and the capacity to respond with enhanced judgment. The brain scans also showed that as teens got older, activity shifted from the amygdala towards the prefrontal cortex. These findings suggest that children and younger adolescents may react from parts of the brain primed for fear and alarm because

frontal areas are not yet fully developed. In addition, children and adolescents tended to make more errors, mistaking fearful expressions for other emotions such as shock, anger or confusion (Baird et al., 1999). A more recent study further confirms that different brain areas are recruited in the processing of fearful facial expressions in adolescence and adulthood, with adults showing greater connectivity between the amygdala and the hippocampus (central to the formation, storage and processing of memory) than adolescents (Guyer et al., 2008). Such differences in emotional processing may help to explain some of the reactivity associated with adolescence, as well as emotionally charged conflicts that sometimes erupt between adolescents and their parents or peers.

Additional studies also provide evidence that as the brain matures and reorganizes, it processes information differently. In another study, McGivern, Andersen, Byrd, Mutter, and Reilly (2002) examined the potential influence of synaptic proliferation in the frontal lobes on cognition. They found that at age 11 or 12 (around the onset of puberty), the speed at which children could match images of faces with the appropriate emotion dropped significantly from the previous year. Reaction times became more efficient over the next two to three years, stabilizing by age 15. McGivern et al. concluded that changes in reaction time could reflect the relative inefficiency of prefrontal circuitry as the adolescent brain undergoes its growth spurt and pruning. These finding are consistent with the idea that temporary disorganization may precede reorganization.

Relevant to the issue of impulse control, a study by Luna et al. (2001) suggests that cognitive controls over behavior develop progressively from childhood to adulthood. They found that the ability to perform a simple response-suppression task improved gradually through childhood and adolescence. (A response supression task examines the ability to voluntarily supress a specified behavior, in this study, eye movement.) While adolescents were able to perform the task at the same level as adults, they recruited different brain systems in order to do so. Adolescents showed substantially more activity in the dorsolateral prefrontal cortex (associated with controlled, effortful processes), while adult responses reflected integrated function of a number of different brain areas including the neocortex, striatum, thalamus and cerebellum. Keating (2004) notes that the findings by Luna et al. (2001) are "consistent with the notion of a complex assembly of mechanisms of conscious control during the adolescent transition, which leads to more automatic and less effortful governance by the prefrontal cortex with maturity" (p. 71). The studies detailed above point to the importance of ongoing development of prefrontal executive functions during adolescence as a foundation for more efficient, flexible and integrated processing in adulthood.

Neurophysiological Changes in Adolescence.

While adolescent behaviors such as emotional reactivity, impulsivity, and risk-taking may be explained in part by the limitations of an immature prefrontal cortex, other changes have been implicated as well. Adolescence involves the reorganization of multiple brain and body systems, and while some aspects of development may proceed relatively independently, others appear to interact. For example, cognitive development (associated with maturation of the prefrontal cortex) appears to proceed on schedule even in the event of late or early puberty, while other brain processes (and resulting behavioral changes) appear to be influenced by the influx of hormones associated with the onset of puberty (Dahl, 2004; Keating, 2004; Nelson et al., 2002; Spear, 2000; Steinberg, 2005).

Animal studies suggest that increased levels of gonadal and adrenal hormones associated with puberty directly impact the balance of neurotransmitters throughout the brain (including norepinephrine, dopamine and serotonin) which regulate mood and excitability, as well as act upon motivation and reward systems within the brain (Cameron, 2004; Spear, 2000). In addition, sex hormones appear to be particularly active within the emotional limbic system—a high number of androgen (male hormone) receptors are located in the amygdala, while the hippocampus has a greater number of estrogen (female hormone) receptors (Casey et al., 2000). Neurophysiological changes that occur with the onset of puberty have been implicated in a number of adolescent behaviors including mood fluctuations, changes in drives (including romantic and sexual interest), sleep patterns, increased novelty seeking, sensation-seeking and risk taking, as well as gender differences in behavior (Carskadon, Acebo, & Oskar, 2004; Compas, 2004; Dahl, 2004; Spear, 2000; Steinberg, 2004, 2005; Strauch, 2003; Wallis, 2004; Walsh, 2004).

Changes in Dopamine and Motivational Systems: Adaptation and Risk

Spear (2000) describes alterations in the dopamine system during adolescence that may have important consequences for behavior. More specifically, there is cross-species evidence that while the amount of input from the excitatory neurotransmitter glutamate and the inhibitory neurotransmitter gamma-amino-butyric acid (GABA) decrease in prefrontal areas during adolescence, dopamine levels peak in the prefrontal cortex and limbic regions during this period. Dopamine is involved in the pleasure and reward system of the brain and the positive feelings induced by increased levels of dopamine tend to reinforce behavior (and therefore learning). Dopamine is known to increase when we encounter novel stimuli.

While dopamine levels decline overall between childhood and adulthood, higher dopamine levels in adolescents as compared with adults may prime teens for exploration and enhance learning. The picture is not a simple one, however. While dopamine increases in the prefrontal cortex and limbic regions during adolescence, it decreases in the nucleus accumbens and other parts of the reward system. This suggests that adolescents as a group may be dopamine-depleted and therefore might seek more stimulating activities in order to get the same effect (Spear interview in Strauch, 2003; Steinberg, 2004). In a similar vein, data from a recent study by Bjork et al. (2004) suggests that the nucleus accumbens, central to motivation, may not be fully developed in adolescents,

and as a result they may seek either highly stimulating activities or ones that require minimal effort (Bjork et al., 2004; Wallis, 2004). Whether as a result of excess dopamine in frontal and limbic areas, or as a result of decreases in the motivation-reward system, changes in the dopamine system are implicated in increased exploration, sensation-seeking and risk-taking behaviors. Spear (2000) further states, "To the extent that adolescence is associated with developmental alterations in prefrontal cortex, limbic brain areas, and the dopamine input to these regions, concomitant developmental alterations in various motivated behaviors might also be expected" (p. 113).

Spear (2000, 2008) emphasizes the adaptive aspects of increased exploration and risk-taking in the transition to adulthood. Such behaviors may serve an evolutionary function that supports the attainment of skills necessary for independence. She notes that behaviors such as novelty-seeking, risk-taking, increased social investigation and interaction with peers can be observed in adolescents of many species. According to Spear, peer-directed social interactions may be important to the development of new social skills, help guide choice behaviors such as food selection (for better or worse), and provide opportunities for practicing and modeling adult behaviors. In addition, it is typically in adolescence that the young of various species begin to expand their range of exploration. The benefit from an evolutionary perspective is the dispersal of offspring to new territories before they begin to mate which helps to avoid inbreeding. Spear (2000, 2008) observes that research suggests adolescents who engage in moderate risk-taking behaviors tend to be more socially competent in both childhood and adolescence than abstainers or high risk takers. She concludes that some adolescent risk-taking and sensation seeking appears to be normative across a variety of species.

From an evolutionary perspective, the neurophysiological changes associated with puberty appear to prime the organism for physical growth, exploration, and learning new skills and behaviors necessary for survival. Although changes in the brain may be evolutionarily adaptive, there are increased risks as well. In addition to increases in sensation-seeking and risk taking, Spear and others note that changes in frontal areas, limbic circuits and the dopamine system, along with social factors, may make adolescents particularly susceptible to the addictive effects of substances such as nicotine, drugs and alcohol (Chambers, Taylor, & Potenza, 2003; Jackson, 2005; Spear, 2000; Strauch, 2003; Walsh, 2004).

Implications

The Gap between Emotional Development and Cognitive Controls

In recent years, neuroscientists have begun to trace the development of various structures and systems within the adolescence brain. The relationship between those changes and changes in behavior remain largely speculative, however. Nonetheless, several themes have emerged that suggest specific aspects of adolescent brain development that may contribute to both increased vulnerabilities and opportunities during this period.

First of all, cross-species evidence suggests that neurophysiological changes associated with puberty appear to "rev up" the system, making it more excitable, emotionally reactive and susceptible to stressors (Dahl, 2004; Spear, 2000). As Dahl (2004) describes, neuroendocrine changes that impact limbic and motivational regions of the brain may create a "natural tinderbox" (p. 20) of igniting passions in which certain types of feelings may be triggered more quickly and with greater intensity than during childhood or adulthood. In addition, theses changes appear to create the tendency to *seek* experiences that create intensity, excitement and arousal (thus the youth battle cry of "sex, drugs and rock and roll!").

While neurophysiological changes that appear to fire up the system begin with the onset of puberty, research suggests that development of prefrontal executive functions—including the capacities for impulse control, logical reasoning, planning and the ability to consider the consequence of actions—occurs later, with maturation proceeding gradually over the course of adolescence and continuing long after puberty is complete (Dahl, 2004; Giedd et al., 1999; Keating, 2004; McGivern et al., 2002; Paus, 2005). The fact that the prefrontal cortex matures late allows for greater flexibility (neural plasticity) and therefore the ability to adapt to the demands of a particular environment. However, the asynchrony between early emotional and motivational changes and later development of prefrontal regulatory capacities creates a potential disjunction between an adolescent's emotional experience and his or her ability to regulate thoughts, feelings, drives and behavior (Dahl, 2004; Steinberg, 2004, 2005). This potential gap suggests increased risks for a broad range of emotional and behavioral problems.

The gap between emotional processes and the development of cognitive controls may be exacerbated by a recent trend towards earlier pubertal maturation (Dahl, 2004). A number of studies conducted in Western industrialized societies have documented a decline in the average age of pubertal onset over the past century, particularly for girls (Rutter, 1993 cited in Dahl, 2004; Papalia, Olds, & Feldman, 2007; Pearce, 2002). Whether due to improvements in nutrition and medical care, or less benevolent causes such as the use of hormones in food production or exposure to highly-sexualized environments, earlier puberty appears to set in motion neurobehavioral changes such as sexual interest, sensation-seeking and risk-taking. While changes in motivational and emotional processes are occurring at earlier ages, there is no concomitant change in cognitive development. There is a strong body of evidence that suggests cognitive development proceeds independently and is associated with age and experience rather than pubertal timing (Dahl, 2004; Keating, 2004; Steinberg, 2004, 2005).

At a time when emotions run high and judgement and self-control are not fully developed, adolescents are confronted by an increasingly complex world. In tribal societies, the onset of puberty is often accompanied by initiation rites that mark the beginning of a sort of tutelage by village elders. In addition, within many traditional societies, most adolescents live and work alongside parents, extended family or community members as they prepare for clearly defined adult roles (Sisson, Hersen, & Van Hasselt, 1987). In contrast, within contemporary industrialized societies, adolescents tend to be isolated together as a group, with greater

"freedoms," and less supervision or participation by responsible adults (Hersch, 1998; Hine, 1999). Although modern society offers a wide array of opportunities in terms of lifestyle, education and occupation, adolescents today are faced with an onslaught of situations for which they may not be ready (from being manipulated by marketers or posting provocative photos on a personal web page, to a range of potentially unprotected sexual experiences, greater access to alcohol, drugs and even weapons). Greater recognition that adolescents' emotions and desires precede their ability to manage them speaks to the importance of ongoing support and guidance during this transitional period.

The Central Theme of Adolescent Brain Development—Integration

Mental development occurs throughout the lifespan. However, there are certain critical periods—*windows of opportunity*—during which the brain is more malleable and primed for growth and new learning. A growing body of evidence suggests that adolescence is just such a critical period. Although the rate and magnitude of changes are far greater in infancy than in adolescence (Day et al., 2006), the developmental processes of synaptic growth and neural pruning appear to be the same (Giedd, 2008). If adolescence represents a critical period for brain maturation, then what is it critical for? In infancy, it is the right hemispheric emotional system and self-regulatory capacities that are undergoing critical periods of maturation (Schore, 1994, 2000, 2001, 2003; Siegel, 1999). During adolescence, the central theme of brain development is *integration.*

The literature has focused much attention on prefrontal executive functions because of their role in impulse control. The emphasis has been on *vertical integration*: inhibitory control of the prefrontal cortex over the lower limbic circuits responsible for automatic emotional responses. While vertical integration is important (particularly in light of changes in limbic and motivational systems that appear to make adolescents more prone to impulsivity and risk taking), changes in the brain during adolescence allow for integration at many levels. It is significant to note that many of the brain areas that undergo substantial changes during adolescence serve important integrative functions. For example, the basal ganglia help to prioritize information from various brain systems en route to the frontal lobes and to organize a behavioral response (Giedd, 2003). The corpus callosum which connects the two hemispheres of the brain allows for the integration of two distinct modes of processing—the sequential, analytical mode of the left, with the more intuitive, holistic right (Siegel, 1999; Thompson et al., 2000). This integration across the two hemispheres can be described as *lateral or horizontal integration*. The cerebellum with its intricate connections to the neocortex may also connect the two hemispheres indirectly, as well as playing a role in integrating various aspects of affective and cognitive experience with movement and therefore behavior (Damasio, 1999; Siegel, 1999). Overall, greater interregional connectivity and development of the prefrontal cortex as a synethesizer of experience, appears to allow for more complex processing, greater integration and the emergence of new capacities, as well as new ways of experiencing and being in the world. In simple terms, "*The whole is greater than the sum of its parts.*"

Integration supports optimal functioning. The brain is composed of various structures and systems that specialize in processing different types of information. As Siegel (1999) describes, the way in which the different circuits function and interact give rise to the quality of our subjective experience from moment to moment. Various systems within the brain may act cooperatively, conflict or remain disconnected from one another. Cohesive states, in which the various modes of processing are integrated are the most functional and adaptive (Cozolino, 2002; Levine, 1997; Schore, 1994 2003; Siegel, 1999). Integration supports the smooth flow of information between various brain systems allowing for more flexible responses to the environment or the task at hand. As Siegel suggests, "The integration of these distinct modes of information processing into a coherent whole may be a central goal for the developing mind across the lifespan"(p. 4). It is important to note that the processes by which the brain becomes more integrated appear to be at their peak during adolescence.

Integration is a source of tremendous creativity. To use a metaphor, in the Western musical scale there are only seven notes. However, through novel arrangements between those notes a seemingly infinite number of possible melodies and unique modes of expression can arise. In a similar manner, it is through the integration of various neural systems that thought and emotion, intellect and instinct can be harmonized to generate not only the widest (and perhaps *wisest*) range of choices within any given situation, but create a sense of wholeness as well. The development of a cohesive sense of self or *identity* is recognized as a central task of adolescence (Blos, 1967, 1978; Erikson, 1968, 1985; Gemelli, 1996; Sisson et al., 1987).

Much attention has been focused on the risks and vulnerabilities of adolescence. What we have failed to adequately address, however, is its potential. Processes of integration likely underlie what Keating (2004) refers to as the assembly of an "advanced executive suite of capabilities" that allows for the "attainment of a more fully conscious, self-directed, and self-regulating mind" (p. 48). The expanding abilities of adolescents to further differentiate self from others, to think abstractly, reason, generate creative solutions to problems, and take broader perspectives are essential to successful adult functioning. More importantly, the capacities developing during adolescence, in particular the capacity for self-reflection, are the very capacities that make lifelong growth and change possible.

In summary, neuroscience research over the last decade indicates that brain development is more prolonged than previously recognized. Growing evidence for adolescence as a critical period suggests increased vulnerabilities, as well as unique opportunities to support developing capacities. The unexpected discovery that brain development continues throughout adolescence and beyond provides a salient reminder that our children's needs are ongoing. It is important that as a society we invest resources in ways that continue to support development at every age.

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Biography

Deborah Harkin, Ph.D. earned a doctorate in Clinical Psychology with a specialty in Somatic Psychology at Santa Barbara Graduate Institute (SBGI) in 2007. Her dissertation synthesized traditional psychoanalytic theories of adolescent development, attachment theory and recent discoveries in neuroscience on the adolescent brain. She is currently a core faculty member at SBGI and can be reached at dharkin@thechicagoschool.edu.

The Continuing Evolution of Touch in Psychotherapy

Anastasia D. McRae, M.Div., MSW, LSW

Abstract

The following article is a brief overview of the touch taboo in psychotherapy and the gradual use and acceptance of touch use in psychotherapy as evidenced through empirical research.

Keywords

Touch – Psychology – Body Awareness

As if in an echo of their often conflicted predecessors, writers and researchers involved in the dialogue about the use of touch in psychotherapy are divided. In both theory and empirical research, we find, on the one hand, a focus on past and possible future abuses of touch -- ranging from sexual misconduct and other inappropriate boundary violations to situations where touch would be clinically contraindicated. On the other hand, we have recognition of the crucial place of touch in human development. Research through much of the twentieth and early twenty-first centuries shows conclusively that the absence of touch or its negative use affects the emotional-mental maturation --even survival-- of infants, and that appropriate physical contact has a significant role to play in helping trauma survivors recover (see, for example, Harlow, 1959; Spitz, 1945).

The taboo regarding touch in psychotherapy is still very much a part of the ethical concerns of the mental health profession though it is no longer as strictly adhered to as it once was. Due to a number of strands of thinking throughout the history of psychotherapy along with findings from various other disciplines, attitudes about the use of touch, the body, and body awareness in treatment are changing (Anderson, 2007; Fosshage, 2000). Unfortunately, with the change in attitude, there may not have been a corresponding increase in dialogue and training needed to enhance the ethical use of touch and body awareness.

> *In general, therapists are better prepared to handle situations competently when they have been prepared to deal with an issue before it appears in their clinical practice. Education about touch is especially important since an unexamined practice of touch can so easily lead a therapist into serious difficulty (Sanderson, 1995, quoted in Tune, 2001).*

Though findings show, and opinions point to, a need for adequate training and increased self-awareness on the part of the therapist in relation to the use of touch and body awareness (Durana 1998; Horton, et al., 1995; Ketray & Reviere, 1993; Smith, 1998a; Strozier et al., 2003) the bulk of the literature to date neglects to include the voices of those mental health professionals who have engaged in additional training in these areas. Quantitative research involving clinicians who are professionally trained to use touch and body awareness is particularly absent from the literature.

While there is much theoretical work written on the use of touch in psychotherapy, within the body of limited empirical research there is no consensus for or against the use of touch, though it is obvious that touch in the psychotherapy and psychoanalytic treatment room actively continues as both event and concern. This is a look at pertinent empirical and theoretical literature about touch and body awareness used as therapeutic tools in psychotherapy. It is a brief exploration of both the reverberations of the taboo on touch use in psychotherapy and past and current arguments in favor not only of the use of touch but also of body awareness in general, as crucial components of psychological healing. The purpose of the study, from which the current article is taken, was to survey the differences in reported practices and attitudes of mental health professionals who use touch and body awareness with and without additional training (see USABPJ, Volume 7, Issue 2, 2008).

The Touch Taboo

Even if the history of the proscription of touch in psychotherapy is easily traced back to Sigmund Freud and the early days of psychoanalysis (Kertay & Reviere, 1993), it would be remiss to overlook the much longer and influential history of mind-body duality in Western thinking and culture in general. This dichotomous way of thinking about the human being had its beginning in antiquity and has been the topic of much philosophical and theological debate since then. In the writings of Augustine, Aquinas, Newton, and Descartes we find the most well-known of the roots of this debate, though they are but a very few of the voices that contributed to the current state of affairs (Kelsey, 1973; Smith, 1998b). Freud's stance against touch in psychoanalysis was very much a part of his contemporary culture and of the larger cultural history wherein the religious authorities had, it is suggested, forfeited the body to science and claimed the spirit as its dominion during the Enlightenment (Kelsey, 1973). By abandoning touch, Freud effectively left the body to medicine while carving out a different space for his

fledgling science in the realm of the mind, thereby continuing the tradition of thinking of the human in terms of spirit-mind-body separation (Smith, 1998b).

Freud did not start out condemning touch. Quite the contrary, as is noted in most writing on the subject, he used touch early in his work with patients to explore whether pressing the patient's head during hypnosis could help the patient "abreact" trauma (Greene, 2001; Geib, 1982; Kertay & Reviere, 1993; Ventling, 2002). Freud came to conclude that the patient's ability to adequately use the transference in treatment was impeded if touch were a component. He reasoned that touch would gratify the patient's infantile need for the parental figure, now activated by the therapeutic transference, and take away the frustration the patient must experience in order to heal from earlier disruptions to the psyche (Greene, 2001). Freud was also concerned about ethical violations by some of his contemporaries who carried their use of touch into the realm of sexual and romantic relationships with their patients (Geib, 1982; Ventling, 2002). In an attempt to minimize possible harm to patients, to solidify the therapeutic boundaries of, and to remove any obstacles to his burgeoning discipline, Freud banned touch within all legitimate psychoanalysis, the precursor of psychotherapy (Totton, 2003; Ventling, 2002).

The Touch Taboo Today

Freud's ban against touch in psychoanalysis spread to all branches of psychotherapy and continues to affect the practices of many psychotherapists. For some mental health professionals continued adherence to the ban translates into no touch whatsoever; for others, minimal touch is appropriate. Gutheil and Gabbard (1993) recommend that handshakes be the extent of touch allowed in therapy, partially because of the litigious nature of our society and partially because of very real sexual misconduct and other boundary violations by some therapists (Gutheil & Gabbard, 1993; Hetherington, 1998; Holroyd & Brodsky, 1977; Pope, 1990; Stake & Oliver, 1991). In response to these boundary violations, the American Psychological Association (APA) and the National Association of Social Workers (NASW) both prohibit sexual relationships between therapist and client along with any physical contact that would potentially harm the client. Neither organization explicitly prohibits touch altogether, however. Unlike the APA, the NASW ethics code does include a specific section on physical contact. In Section 1.10 of the Social Workers' Code of Ethics, the organization states that: Social workers who engage in appropriate physical contact with clients are responsible for setting clear, appropriate, and culturally sensitive boundaries that govern such physical contact (NASW, 2006, p. 13).

The dialogue surrounding touch in psychotherapy has focused to a great extent on sexual misconduct and risk management precautions; though, while the cautions are important, they "seem to reinforce a view of all touch as sexual in nature and create an atmosphere of suspicion surrounding the use of touch" (Stenzel & Rupert, 2004, p. 332). As a result, meaningful conversation or research about non-erotic touch is hindered, or inadvertently suppressed (Stenzel & Rupert, 2004). On the issue of touch leading to sexual acting out, there is no empirical correlation between the use of touch and sexualized misconduct (Holroyd & Brodsky, 1980), though research has found that opposite-sex dyads present more possibility for misunderstanding touch incidents (Gutheil & Gabbard, 1993; Holroyd & Brodsky, 1977; Stake & Oliver, 1991).

Another consideration to factor into possible misunderstandings and boundary violations is the power dynamic involved in the use of touch with specific reference to who is allowed to touch whom. In the general American culture, men, adults, medical professionals, and those in higher social standing are allowed more touch freedom than those considered in some way inferior to those listed. Although research shows that women touch others more, it is necessary to note that in the data gathered women are generally touching other women, not men (Holroyd & Brodsky, 1977; Strozier, Krizek, & Sale, 2003; Stenzel & Rupert, 2004). Therefore, in terms of power differentials, women, children, the elderly, and people considered in lower social standing (perhaps economic, racial, bodily, or for reason of sexual orientation) are granted less freedom to touch (Alyn, 1988). Some suggest that touch in psychotherapy may be detrimental in the context of the hierarchically structured therapeutic relationship because the client may not feel he or she has the possibility to deny touch initiated by the therapist, thereby locking the client into unclear and harmful exchanges (Alyn, 1988). Therapists who advocate touch with clients recommend that the client initiate the touch or that the therapist ask permission prior to the touch, thereby eliminating some of the tension of the power dynamic and curtailing negative effects of the touch (Durana, 1998; Gelb, 1982; Greene, 2001; Horton, Clance, Sterk-Elifson, & Emshoff, 1995; Torraco, 1998).

Perhaps it is for some of the above reasons that in their recent study, Stenzel and Rupert (2004) found in a national sample of 470 practicing psychologists that almost ninety percent reported never or rarely touching clients during sessions and eighty percent only shook hands with their clients sometimes. Confirming the prevalent research, the study found that therapists claiming humanistic, Gestalt, and existential theoretical backgrounds touched more than those with psychodynamic training. Though most ask permission to touch, fifty percent report never or rarely explaining touch with clients. Seventy-three percent reported some type of discussion with supervisors or teachers that presented touch as harmful, while fifty-six percent were involved in discussions with supervisors in which touch was presented as beneficial. Stenzel and Rupert concluded that handshakes are the most common form of touching, saying that the attitude among those responding to their survey was cautious (Stenzel & Rupert, 2004).

Use of Touch

Freud's was not the only opinion about the use of touch in psychoanalysis during his time. Among his close circle of friends and colleagues, Freud encountered disagreement with his views, most notably from Wilhelm Reich and Sandor Ferenczi who both continued to use touch in their work with patients after Freud's pronouncement against it (Fosshage, 2000; Kertay & Reviere, 1993; Tune, 2001; Ventling, 2002). Reich suggested that the body was an important factor in psychological healing because of what he came to call "body armoring," a process that occurred as a result of bodily accidents and illness, emotional stress, and trauma. The body, as Reich saw it, was a holding vessel for experiences; if negative effects of experiences were not dispelled in a healthy fashion, they became part of a rigidified physical defense system that caused both maladaptive emotional and physical responses to new situations. The idea of body armoring is the basis of some current ways of working with the body in psychotherapy (Totton, 2003; Ventling, 2002).

More recent shifts in thinking about the use of touch in psychotherapy have been occasioned by a myriad of converging ideas in the past few decades, not the least of which have been the changing in psychotherapy itself from a positivistic to relativistic science, from an exclusively intrapsychic to a relational and interpersonal model (Fosshage, 2000). Among the ideas affecting the shifts in perspective include the findings and questions from research into the nature of the mother-infant attachment (Bowlby, 1958; Winnicott, 1963), what contributes to healthy child development (Ainsworth & Bowlby, 1991; Erickson, 1950; Piaget, 2002), neurological research on normal development (Damasio, 1994; Schore, 2003; Siegel, 2001) as well as how development is affected by trauma at various life stages (Ogden & Minton, 2000; Ogden, Minton, & Pain, 2006; Schore, 2003; van der Kolk, 1994).

In normally developing humans, the sense of touch is the first to develop. As the skin is the largest human organ, touch is integral to the growth and development of the individual (Montagu, 1971). Research by Spitz (1945) and Harlow (1959) pointed to the importance of human touch in both psychological and physical development. Harlow's experiments with infant monkeys and surrogate mother monkeys, some made of wire-mesh and others with cloth, showed that touch is perhaps as crucial to human infant survival as food (Harlow, 1959). Spitz's (1945) work with infants and their imprisoned mothers came to similar conclusions about the need for adequate touch. Both experiments demonstrated that without adequate touch the subjects failed to thrive.

Touch is an important element in human development, not only in the lives of infants but throughout the life cycle (Bar-Levav, 1993; Orbach, 2003a; Turp, 2000). Human contact plays a major assisting role in the growth of movement patterns and a sense of self in the world by allowing for the evolution of a "secure base" from which the infant, child, then adult, can orient oneself (Turp, 2000). Bowlby's (1958) attachment theory, though it does not mention touch as such as an important vehicle, seems based on the notion that enough of a certain kind of touch and touching by the primary caregiver creates lifelong effects on the child and the manner in which he or she will interact in relationship with others. Like Harlow's monkeys who were unable to mate successfully once matured (Harlow, 1959), children who receive not enough or confusing contact, expressly physical in this instance, develop maladaptive ways of connection. In *Language of the Body*, the basis for what later became Bioenergetics, Lowen (1971) suggests that one maladaptive pattern exerts itself in the condition of schizophrenia wherein the patient is unaware of himself as a body-self in relation to other body-selves.

Use of Touch Today

Smith (1998a) designed a taxonomy that offers some clarity of definition as it regards touch in psychotherapy. He identified seven types of touch, five of which he labeled as acceptable: inadvertent or unintentional touch, as in bumping into someone by mistake; touch as a conversational marker, as in placing a hand on a shoulder for emphasis; socially ritualized touch as in handshakes at greeting or parting; as an expression of comfort or care, as in holding the hand of a grief-stricken person; or touch as technique, as in conducting physical contact in a specified theoretically informed manner in which the practitioner has received training (Smith, 1998a).

It is evident that therapists do indeed touch their clients in non-erotic ways, if only in the formal greeting of handshakes (Gutheil & Gabbard, 1993; Holroyd & Brodsky, 1977; Milakovich, 1998; Stenzel & Rupert, 2004; Stake & Oliver, 1991). Therapists using touch with patients cite a variety of therapeutic benefits for doing so, including facilitating greater client self-disclosure and bond with therapist (Clance & Petras, 1998; Durana, 1998; Jourard & Friedman, 1970); reparation of human contact-attachment disorders (Liss, 1977; Wilson, 1982); grounding a client in the present moment (Clance & Petras, 1998; Geib, 1982; Leijssen, 2006); accessing pre-verbal material (Bar-Levav, 1998; Liss, 1977); providing an emotionally corrective experience (Durana, 1998; Kupfermann & Smaldino, 1987), along with calming or consoling the client in times of distress (Mandelbaum, 1998; Torraco, 1998).

Goodman and Teicher (1988) suggest that if the rationale in talk therapy is to develop new neuronal pathways in the brain, then the definition of therapy could widen to include other ways of exploring these new pathways, such as the use of touch and body awareness, specifically for the patient who suffers from arrested development:

> The development of neuronal circuitry runs parallel to the psychotherapeutic definition of rehabilitation: small graduated steps of learning under the guidance of a psychotherapist. Touching for the undeveloped personality may serve the same purpose" (p. 498).

Like many others, Goodman and Teicher make a distinction between which patients will benefit from the use of touch in treatment and which patients will not (see Durana, 1998 for a detailed discussion).

Though it is generally agreed that touch should not be used with all patients, with some populations, such as children – especially quite young children—it is very difficult not to involve some level of touch (Cowen, Weissberg, & Lotyczewski, 1983; McNeil-Haber, 2004). In those instances, decisions about the touch needs of the child should be of the highest consideration (Aquino & Lee, 2000; McNeil-Haber, 2004). One nationwide study with ninety-one licensed clinical social workers, eighty-three percent of whom were women, found that ninety-five percent of the respondents used touch at least some of the time with clients, most often shaking hands or touching a client's shoulder, arm or, back (Strozier et al., 2003). Respondents reported touching children and the elderly more than adults and adolescents (Strozier et al., 2003), and were more likely to touch physically ill clients and those of their own gender. Respondents in this study were least likely to use touch with clients diagnosed with borderline personality disorder (34%), the opposite sex (25%), clients with boundary issues (13%), or those diagnosed with schizophrenia (12%) (Strozier et al., 2003). Eighty-two of the 91 social workers in their study reported receiving inadequate training from classes or placements to deal with issues of touch with clients (Strozier et al., 2003). While the results of this study cannot be generalized to a larger population of mental health professionals, it does highlight the decisions clinicians make regarding touch with adults and the levels of training available to them surrounding the use of touch.

In phone interviews conducted with eighty-four respondents using a non-random sample, Milakovich (1998) reported ten areas of difference between therapists who touch and those who do not, four of which point to the importance of both personal and professional experience with touch as indicators of the respondents' use of touch in psychotherapy treatment with patients. Milakovich (1998) found that those who reported touching had experienced touch from their own therapists; had supervisors and teachers who validated touch in treatment; had experienced body therapies and body-oriented psychotherapies; and had training in therapeutic modalities using touch (more than fifty hours). These results coincide with other findings (Geib, 1982; Stenzel & Rupert, 2004) and theory (Durana, 1998) asserting that touch experiences of therapists and the type of training and supervision encountered professionally each have a direct impact on their use of touch in the therapy room.

While there is no research on the efficacy of touch as a modality within psychotherapy, per se, there are data on patients' experiences of touch in psychotherapy. Geib (1982) surveyed ten female patients who had been in treatment with male therapists for at least ten months. She focused on the patient response to clearly non-sexual physical contact (Geib, 1982). From the data, Geib (1982) formulated four factors relating to positive client response to touch in verbal psychotherapy: therapist gave client a sense of control of touch; therapist responded to client's need; encouraged discussion about the touch; and made sure touch was congruent with state of the relationship, i.e., the touch employed responded to appropriate intimacy established in the relationship (Geib, 1982). The four respondents who found touch in therapy problematic, though overall they rated the therapy as favorable, listed reluctance to jeopardize positive feelings by revealing negative ones engendered by touch (feeling unable to express anger, guilt about anger); perception of therapists as needy and vulnerable; and a return to family of origin dynamics (Geib, 1982).

Horton, Clance, Sterk-Elifson, and Emshoff (1995) expanded and tested Geib's four factors in their research with 231 patients. Positive perception of touch in therapy correlated with three of Geib's factors: patients felt touch was congruent with their issues; that the therapist was sensitive to their reaction to the touch; and the patients felt they could be open with the therapist about the touch incident (Horton et al., 1995). Respondents also reported that touch communicated acceptance (47%) and created a feeling of closeness (69%). Horton et al. (1995) found that the therapeutic alliance was positively affected by the use of touch, though thirteen percent of the sample did report negative effects. The study found that patients dealing with isolation, depression, intimacy issues, and abuse were helped by touch. They also reported that respondents felt affirmed, respected, and more bonded to the therapist because of the touch offered in the therapy.

Ethics

Touch is an undeniably powerful communication modality with many possibilities for both healing and misinterpretation in the context of psychotherapy. Though there is potential for misunderstanding or misuse of touch in clinical work, many writers have said that touch is not, however, a topic to be avoided. "The matter of touch is so important and pervasive that the question may not be whether or not therapists *should* touch their patients, but rather *how* touch is utilized and processed in therapy" (emphasis in original) (Kertay & Reviere, 1993, p. 39). Pope, Sonne, and Greene (2006) suggest that not talking about touch in classrooms, supervision, and consultation is harmful to both therapists and patients alike. The absence of dialogue hampers mental health professionals and students in their ability to develop professional ethics and self-understanding that could help guide the clinician when a touch event occurs in their practice, and perhaps lessen the likelihood of unethical or confusing contact for patients (Pope, Sonne, & Greene, 2006).

Kertay and Reviere (1993) offer a three-tiered ethical approach to the use of touch: once both client and therapist have concluded that the touch is not harmful and is part of the necessary therapeutic relationship, concerns of theoretical soundness

then come into question. Durana (1998) adds that the therapist's understanding of her or his own responses, motivations, and attitudes to touch, along with the dynamics of power, gender, and how boundaries play in the use of touch are also ethical concerns. While Durana (1998) points out the need for proper training in his clinical guidelines for the use of touch, Smith (1998) goes further in his taxonomy of ethics by positioning training as the first ethical consideration, saying that if the training has been inadequate in terms of theory or supervision, then the therapist should not use touch with patients. Additionally, Smith (1998a) asserts that touch should be in the best interest of the patient and ego-syntonic for the therapist.

Body-Oriented Psychotherapy

Of the seven categories outlined by Smith, touch as technique is unique in that it involves extensive training on the part of the clinician. Although we have little research involving bodywork and psychotherapy, we do have information on the use of alternative therapies by the general population. In the past two decades there has been a huge increase in use of body therapies, herbal therapies, spiritual modalities, and special diets among Americans, with estimates that more than one third use these avenues (Elkins et al., 2005). With this large a number of the population turning away from the standard medical community, or at the very least seeking different methods as added components to their care, it is hard to imagine that more research on the combination of bodywork and psychotherapy is not available. Elkins et al. (2005) notes that only thirty-four percent of the respondents told their psychotherapists about their use of an alternative therapy (Elkins et al., 2005).

What is now known variously as body psychotherapy, body-oriented psychotherapy, Hakomi, Rubenfeld Synergy Method, the Rosen Method, Rolfing, somatics, or bio-energetics, to name a few, all have, in some way, their beginnings in the work of Wilhelm Reich and Sandor Ferenzci. From Reich emerged students in various parts of Europe who founded the Neo-Reichian Body Psychotherapy Institutes in Norway, Sweden, Germany, and the United States. Alexander Lowen and John Pierrakos formed bioenergetic analysis while those opposed to this way of working, David Boadella and George Downing, created biosynthesis and body psychotherapy, respectively (Ventling, 2002). There was also Fritz Perls, founder of Gestalt therapy and Peter Geissler in Austria, founder of psychoanalytic body-oriented psychotherapy (Ventling, 2002). All the schools address the body through techniques including body awareness, mindfulness, and touch (Ventling, 2002).

Body Awareness as Technique

Touch is but one method on a continuum of modalities in psychotherapy treatment from verbal to non-verbal (Leijssen, 2006). Body awareness as a technique utilized in psychotherapy does not necessarily include actual touching. In fact, many proponents of body awareness do not advocate touch as a technique *they* use professionally (Ogden & Minton, 2000; Ogden, Minton, & Pain, 2006, 2006; Rothschild, 2000; Orbach, 2003b). Various techniques designed to bring attention to bodily sensations, unconscious movements, and feeling states in the body are positioned along the continuum between verbal treatment with no allowance for the body and treatment wherein touch is a component (Leijssen, 2006).

The incorporation of body awareness in psychotherapy can serve as one barometer of the state of the client's transference and any counter-transference on the part of the therapist, thereby allowing for a richer, though not flawless, attunement to non-verbal or preverbal cues (Field, 1989; Orbach, 2003a; Shaw, 1996; Totton, 2003). Allowing a place for the body in psychotherapy treatment, body awareness here is defined as making use of both the therapist and patient's physical reality, more precisely:

> …the expressions of the body of the patient in the form of anatomical shape, gestures, looks, e.g., eye contact, physical contractions/relaxation, and of the sensations of the body as felt and expressed by the patient in various forms like feeling hot/cold, pain, nervousness, sadness, anger, fear, joy, emptiness, etc." (Ventling, 2002, p.4).

Bodies in their own right, not only as symbolic registers, can serve as a pathway to greater here-and-now responses to patients as well as invite more clarity into ways patients respond to the therapist's physical presentation (Orbach, 2003b; Petrucelli, 2007). This can be especially the case when working with clients with eating disorders, self-harming behaviors, physical trauma of any kind, life-threatening illnesses, and otherwise somatically-presented concerns (Ogden, 2006; Orbach, 2003b; Petrucelli, 2007).

One area of recent interest is the call for heightened use of body awareness in trauma therapies. Van der Kolk writes:

> Physiological arousal in general can trigger trauma-related memories, while, conversely, trauma-related memories precipitate generalized physiological arousal. It is likely that the frequent re-living of a traumatic event in flashbacks or nightmares cause a re-release of stress hormones which further kindle the strength of the memory trace. (van der Kolk, 1994, p. 9).

Spearheaded by advances in neurobiology, researchers like Bessel van der Kolk, Alan Schore, and others have written, revisiting Reich's theory regarding body armoring to some extent, that the body stores emotional trauma (Ogden, Minton, &

Pain, 2006; Schore, 2003; van der Kolk, 1994). These researchers call attention to the necessity of treating the client's body and mind as interwoven aspects of the person in pursuit of health and wholeness of the individual.

Orbach (2003a) believes therapists must bring conscious awareness of how their bodies are in fact already an integral part of the therapeutic relationship, writing that "our patients are already using our bodies just as they are using our psyches" (p. 13). She further suggests that the process of engaging in embodied practice also offers therapists an opportunity for greater self-care and knowledge through mindful attention to themselves, physically and emotionally (Orbach, 2003a).

One unique quality of body-centered or body-oriented psychotherapists, and therapists using body awareness in their treatment is their ability "to feel comfortable with their own embodiment, and comfortable with physical contact—relaxed and undeprived enough to trust their own ability to hold appropriate boundaries without refraining from touch altogether" (Totton, 2003, p. 118).

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Biography

Anastasia McRae, M.Div, MSW, LSW is, a clinical social worker, and a massage therapist. As a clinical social worker, she works with families in a school setting in Chicago, IL. This research was completed as a Masters thesis in partial fulfillment of Ms. McRae's Master of Social Work at Smith College School for Social Work. The first part of the research was published here in Volume 7, Issue 2, 2008. She may be reached at amcrae1@gmail.com.

Use of Eidetic Imagery in Exercise Motivation

Katy Swafford, Ph.D.

Abstract

Four volunteers participated in this pilot project to explore the application of Akhter Ahsen's Eidetic Imagery theory to motivation in exercise activity. An initial assessment was used to identify problems in the image process and to associate these with physical symptoms. Then, a workshop using images was conducted to increase body awareness and activate original breathing and movements. A follow-up interview was conducted to identify changes in image structure and outcome. Interviews were coded and summarized to identify negative image elements and exercise experience. Evaluation of the case studies shows negative image elements associated with negative exercise symptoms and changes following the intervention that include positive changes in image response and exercise activity. Applications for the use of Eidetic image analysis in future research are discussed.

Keywords

Eidetic – Imagery – Exercise – Motivation - Barriers

Introduction

One of the most important questions today is, "how do we maintain health and increase longevity in the face of plenty"? The United States is truly the "land of plenty". We enjoy plenty of resources, plenty of knowledge, plenty of opportunity and yet, we are plagued by negative health markers such as obesity and a general lack of fitness. Traditionally, solutions to these problems have focused on diet and exercise programs, on plans and equipment. Revenues from the health club industry total 17.6 billion dollars while sales from fitness equipment alone surpass 4.7 billion. With a total of 22.3 billion dollars, fitness is one of the fastest growing industries in the country (Archer, 2007). Never has more been known about the biochemistry of diet and the mechanics of exercise; how energy production works, how to structure nutritional plans, the effect of fats, carbohydrates, and proteins. Still, with the bookshelves full of diet and exercise techniques, this country is more obese and less fit than ever. Why?

The problem seems to be concentrated in two areas; motivation, getting people to make use of the information available, or performance, getting over barriers once people decide they want to make a change. These areas suggest that we move the focus of the question away from improving equipment and programs and towards studying the internal workings of the individual. It would be helpful to better understand what affects motivation and what gets in the way of people doing what they know would be helpful to their health. The present study examines the use of a special type of image, the Eidetic Image, to understand factors that limit motivation and reduce the likelihood an individual will engage in activity.

The use of images rather than words as a vehicle for gaining information and making changes represents a significant change in understanding of symptoms and solutions. The early linear models use cause and effect for understanding and learning as a mechanism of change. Systems models have added an understanding of complexity in relationships by proposing circular causality, mutually caused interactions, and looks at the relationships between subjects rather than individuals themselves. The Eidetic model is a psychosomatic model, inextricably connecting mind and body. The Eidetic image includes the image and its body response in a specific structure that preserves the relation of mind to body which maintains a smooth flow of consciousness.

The Eidetic image is a strong, repeatable, vivid image that emerges spontaneously from the mind itself. While some types of images have been constructed to achieve a specific purpose or goal and others have been used for mental practice or mental simulation or the intention of the image, the Eidetic Image reveals the structure of the mind itself and the goal of the image process is to understand and change the structure of the mind. This difference addresses the external versus internal nature of this type of image.

In modern scientific terms, the eidetic image is a quantum event, holographic, subjective rather than objective, emerging on its own, and containing all the elements of life and change. This special type of image is directly associated with perception, the image originates in the mind and registers in the visual apparatus and is also registered in the body.

The Present Study

This pilot study explores the application of Eidetic Imagery to motivation for activity, and exercise. The purpose of the present study is to show how barriers to exercise can be identified in an individual's image structure and how Eidetic images can be used to release these barriers resulting in an observable change in image structure and in activity.

The need for this type of study will be described based on the problems with traditional approaches to motivation, especially the problem posed by will–power and volitional control of motivation. The theoretical underpinnings of Eidetic imagery will be discussed, particularly the ISM Model and its relation to symptoms, the diagnostic process coding the ISM

model to identify problems in the mind, and image maneuvers such as filters and the hemispheric location of images. The use of mythological images is discussed as a method of releasing potentials of experience.

A qualitative approach is used for analysis in keeping with the data and the inquiry of the present study. Qualitative procedures are best used when "the focus of the research is on the process, implementations, or development of a program or its participants, the program emphasizes individualized outcomes, or detailed, in-depth information is needed about clients" (Mertens, 2005).

Need For This Type of Intervention

With the best intentions, many efforts to exercise go the way of forgotten New Year's resolutions. Far too many people "sign up" by buying gym memberships and then do not "show up" at the gym. Approximately 50% of people who begin an exercise program will drop out within six months (Berger, Pargman, & Weinberg, 2002). Individuals who do continue often do so intermittently, lapsing and returning over time (Sallis, et. al., 1990). Extrinsic and intrinsic factors contributing to these outcomes, such as external rewards of fear (what might happen if you don't) and punishment (pressure from significant others) have been examined using a model of self-determination (Deci & Ryan, 1985). Intrinsic motivations, with which the participant enjoys the activity for the sake of the activity, are associated with better outcomes (Deci & Ryan, 1995), a fact that presents an interesting question: What makes activity or exercise pleasant or unpleasant? Some studies have focused on the type of activity to answer this question, finding that sports may have higher intrinsic motivating factors than exercise, in which the exercises are focused on improving appearance, decreasing weight or managing stress (Kilpatrick, Hebert and Bartholemew, 2005). Intrinsic motivation may also be related to the stage of change a person is in; evidence suggests that early stages require more external motivators, and later stages move toward internal motivators (Ingledew et al.1998). Self-determination and intrinsic motivation were found to be associated with adaptive patterns related to exercise (Thogersen-Nitoumani & Ntoumanis, 2006).

The findings that positive internal experience during exercise, intrinsic motivation, and high self determination are associated with greater success in exercise are of particular interest to the present study because image process used in this study targets barriers to positive exercise experience at the level where the most effective motivation is thought to occur – inside the person.

The Problem of Will Power

Traditional motivational techniques to increase exercise are based on behavioral principles of rewarding the desired behavior. Reinforcers are identified and small steps toward the goal are rewarded to increase the likelihood that the desired behavior will occur. In this process, the goal is determined by measures external to the subject - charts, averages, other people's scores, distances, or weights. Demands are then made on the body to meet these incremental and eventual goals. Often, the body is tested till it fails to determine the starting point and is pushed to respond a little bit more each episode. To prevent injury, great attention is paid to form and body position so that undue stress is not put on joints or small muscles that are not able to keep up with the demand. These positions are difficult for the individual to maintain however so a mirror, special equipment or a trainer is often employed to monitor and prevent the inevitable lapse to the person's previous position - the maladaptive structure that has been developed over time. Unfortunately, the eventual result of this process is often decreased motivation, exhibited by resistance, (evidenced by forgetting, excuses, "not enough time" and "too busy"). At this point, efforts are usually focused on the use of "will power" by applying accountability, scheduling, buying accoutrements of exercise, classes, and trainers. All of these are external solutions, focused on the external symptom of motivation while inside, the resistance builds and underlying structures actually become more intense. Eventually, motivation flags and self esteem diminishes as the self collapses from repeated failures. For some this results in an aversive, almost phobic, and state.

It is quite seductive to believe that we can think or behave our way out of any problem that knowledge is enough, that if we just know enough, we can control everything or that if we do more and more it will become real. The problem is, the more we try, the more we become involved in the illusion that the next book, or lesson or instruction will be the one - thinking becomes obsession and all these efforts become barriers to the real self.

In Manhunt in the Desert, Akhter Ahsen describes consequence of the divided mind, separating thinking and doing from being, with the resulting loss of an internal sense of knowing inherent in our original nature. He refers to the "humiliation of will."

You made not one barrier
But a whole array of them,
Standing one behind the other,
And you were standing behind them all.
Your original nature,
Hidden, ignored tormented and punished
Behind these barriers (Manhunt p.61)

Theoretical Considerations

Akhter Ahsen, PhD has researched the image and its body connection for over 30 years. In fact, the unique feature of what he calls the Eidetic image is its connection to the body. His triple code model places the body squarely before thinking or meaning. In this model, meaning comes from internal experience, from direct experience or knowing, rather than thinking or learning. In fact, any meaning that comes solely from thinking or memory will always be incomplete and may even be wrong. The model is (I) Image or perception of what is happening, (S) Somatic Response; what emotion or physical response is caused by what is seen, and then (M) Meaning or how all this relates you to the world (Ahsen, 1977). In Ahsen's model, there is no useful meaning without the body. The word Eidetic image was first associated with the Marberg School in Germany and was thought to be available mainly to children and to artists. Recently this type of image has been referred to in the limited aspect of photographic memory. Ahsen's contribution is the recognition that the Eidetic quality of the image is available in every person and, although it may have been hidden away or undeveloped through an overemphasis on thinking, it can be released and imagination can again flow freely. In this way, the Eidetic image holds secrets of consciousness and, when concentrated on, surfaces previously lost or hidden potentials - replacing history with wholeness. (Ahsen, 2007 workshop)

The word Eidetic comes from the Greek word Eide, which means "to see form". The Greeks called these images "gifts from the gods" and considered them to be primary in nature, occurring spontaneously in the mind. Because they come from within, these images accurately show a whole picture of the mind; they are actually holographic records of our experience. The nature of a hologram is that the whole is always available; all potentials are present and can be examined from many different views. In addition, holographic images are robust, they can be projected over and over again which means they can also be explored for additional information. Occurring in this way, the image operationalizes the mind into physical reality.

In practical use, these images hold all the secrets of mind, secrets that are available if we know how to look. When we first look at an image, we see the top layer, often with elements that we expect to see; this layer contains what we already know and doesn't usually surprise us. However, there are also objects or events that we may not notice at first that will surprise us or make us curious. These objects or events are the gateways to new information something we wouldn't have know to address, something that is not available to memory or thinking. They catch our attention and when we attend to these clues the hologram is stimulated, more and more of the drama that is consciousness unfolds. In this way the images serve as portals into the hologram of consciousness.

As the image serves as an entry to the whole of consciousness it also provides access to our physical being, into the body. Every image has a physical registration in the body. The form that the eye sees is carried through electro-chemical processes to the brain where it is conducted physically into the body as a physical response. So, whether the image comes from outside (like seeing a tree) or inside through imagination (like seeing an animal with the head of a rooster and the tail of a fox), the body registers what the mind sees. This is the hallmark of the ISM model.

ISM Model

The ISM model has a tripartite structure of Image (I), Somatic Response (S) and Meaning (M). When perception occurs in this order there is a natural flow of consciousness, potentials in the brain are activated and all the instructions to the body are in sequence. The image that is seen and the body response that follows provide an accurate picture of reality for this person. When the sequence is stacked in an "I", then "S", then "M", order, the connection is open and experience is processed smoothly allowing the mind to find its own natural solutions and maintains a flow of consciousness into the body and into the world. When this pattern is disrupted, however, the signaling systems are also disrupted or out of sequence and a "glitch" occurs. This glitch causes a recycling; repeating the effort to continue the flow, this obstruction or constriction eventually results in a breakdown and produces a symptom. For example, if the subject reports a somatic response first, followed by a meaning "I feel scared. (S) My Father was always angry (M)" the scared feeling is expected to continue and even escalate; the subject may go from one memory to another that has a similar feeling or meaning. By contrast, as a therapeutic maneuver, a request may be made for the image, "what do you see"? If the subject then describes the picture seen in the mind, followed by the feeling associated with the image, the ISM order is restored and a new connection is made in the mind which is expected to result in a new meaning for the event. It is important to note that when the order is out of sequence or something is missing, SM(I) in the above example, the mind is diverted away from the self and onto something external (characteristics of the Father in the above example) which takes the person away from themselves. It is this separation from self that irritates the mind and eventually creates a symptom.

The image is therefore both a diagnostic which shows the operating system of the mind and also a vehicle for change because it can be maneuvered to release the natural flow of consciousness. In fact, there is a natural press in the mind to maintain the natural order such that simply concentrating on the image and then the body response, back and forth, may be enough to connect the "I" and the "S" components in the proper order and cause a change. This will be seen in the results of this study, since no extra intervention was applied.

Symptoms

When memories, previous beliefs, or opinions intrude, they may obstruct the flow of consciousness and produce a symptom which is usually accompanied by a sense of heat in the experience of the person. Physically, this may be inflammation or psychically it may be irritation or agitation. Because any change in the image will change the body, various maneuvers can relieve the situation. Maneuvers such as changing the temperature of the image, oscillating a positive and negative image to loosen the fixed body response, emanating another self-image, to name only a few can be used to change the signal from the brain and regulate the response of the body.

The symptoms presented by the subject and the subjects worry or concern regarding the symptom are not only a physical state, they have both the image and a meaning attached; although these may be partly dissociated and out of the subjects awareness. With the projection of the image and its connection to the body, the eidetic image has a natural progression that gives new information and unfolds new realities (Hochman 2007, p.6). Therefore the images, as projected and described by the subject, have relevance to the symptoms presented.

Diagnostic Process

Identifying the physical symptom in the associated structures of the subject's mind requires examining the structures of the subject's mind which is accomplished through the use of projected images. Since the inquiry is about the person rather than the resulting symptom, several mental tests and maneuvers were used to clearly show how the symptom is being produced in the mind. This process targets the symptom in the mind and allows the signal that is maintaining the symptom to be changed, releasing the symptom.

Eidetic Parents Test: The Eidetic Parents test containing 30 images of parental images in a variety of settings. Each item is expected to surface elements of the self that were developed in the original relationships with parents, it shows the nature of the emotional ties to the parents. "The images are literal of the parent-child, parent-parent involvement, and bring to consciousness the significant events, emotions and meanings of the person's life pertinent to his current life situations (Ahsen, 1989)." Brief, but focused concentration on a sequence of images shows links between the images and brings into awareness the connections of image to symptoms. The images show current structures resulting from the subject's relationship with each parent one parent with the other. In the present study, two of the thirty images were used to surface 1) the climate of the home environment and 2) effect of parental relationship on the client.

Parents as filters: Our early experiences filter our current experience, and since our parents are our first teachers and the people we interact with first in our lives, identifying the effect of these filters provides useful information about potential barriers to performance. When an image is projected "keeping Mother in mind" or "keeping Father in mind" it changes the projection in a particular way depending on the structuring effect of the filter. In the present study, parental filters were included in the interviews to surface potential effects of development on the exercise symptom identified.

Anticipation Response: Every perception includes a body response, for example if you see something you like, there is a feeling activated of pleasure, something you dislike is accompanied by a different, but distinct body response of displeasure. This is the hallmark of the ISM model. Further, seeing something in image generates a body response such that seeing an image of something that is going to happen activates the body in anticipation of the event. The body gets ready, or gears up for the anticipated event. In the present study, the anticipation response was used in the interviews to engage the body response on the topic of exercise.

Hemispherics: Images are associated locally in the brain such that the spaces projected on one side or the other may differ in attributes such as illumination or temperature. These images cannot be switched from left to right without causing some difficulty. This difficulty will be seen either in the visual perception of the image, or the somatic response to the image (Ahsen, 1972). EP2 of the Eidetic Parent's test provides information about this hemispheric locality, with parents seen in one hemispheric, and the interactive nature of the relationship captured in the image. In the second image of the EPT, the hemispheric location of parents is projected which surfaces information about the nature and strength of the subjects relationship with parents.

Image and Mythology

The nature of mind implies, as we have discussed, that solutions are present alongside problems at all times. It also implies that the greater reality is present at all times alongside individual or historical experience. At a very basic level, individual experience is not different from or separate from any other human being, in present time or over all the history of time. Recent developments in genetics have shown that our ancestors as well as what is going to happen to us, our future, is present at every moment in every cell. The entire universe exists literally "on the head of pin", or more accurately, in a structure that cannot be divided into parts or even be seen but exists as pure potential.

As personifications of universal truths, mythology connects a greater reality with personal experience. Some mythic stories are more poetic than others but all myths describe the human-spiritual condition. As is true other images described so far, the mythic images connect physically, bringing a higher self into the body to be experienced. In this study several mythological images are used to turn on the original signals, to reach beyond symptoms to access primordial potentials. For example, the "Smelling Ice" image used in the workshop phase of this study is included because it activates the diaphragm

while letting external muscle structures rest. The image is part of the creation myth of the Viking mythology. Ymir was the first life, the first differentiation from the ice. Smelling ice is his first breath. This exercise, which begins with the mythological story of the beginning, the image of ice, and the experience of smelling ice, automatically engages first the mind and then the body. There is no resistance, no "trying" or "trying not" to use this or that muscle, no instruction about how to breathe. The image has the knowledge - the breath is there and the body is open.

The image of "Churning the Waters" is also a creation myth. This time the focus is activating movement in the body at the most basic level, experiencing movement come to life from within. The mythic image of the beginning of the world instructs the beginning of the world of the body. The mythical is physical.

Research Questions

To study the use of imagery process to explore the association of physical problems in exercise with psychical problems in images connected to exercise and to explore the effect of image maneuvers on images and exercise activity, this study asks the following questions:

1. Can an exercise symptom be associated with a projected image?
2. Will image maneuvers produce a change in experience that can be seen in changes in images projected and in exercise activity?

Propositions

The following propositions describe why particular changes in image or experience may be observed.

1. Consciousness has a corresponding effect in the mind and the body such that a negative symptom, such as lack of motivation to exercise, will be seen in a negative aspect of the image such as negative image or disruption of the ISM.
2. Once the problem in the image is identified, a maneuver can be applied to re-establish the original flow of consciousness.
3. When the problem in consciousness is released, the physical symptom will be relieved.

Link between Data and Propositions

1. Reported symptoms in exercise are expected to be associated with negative projected images or ISM structures that are out of order.
2. Maneuvers including the use of filters and hemispheric location of images are expected to help identify negative image responses and to increase awareness of impact of parental relationships on current activity performance. In addition, images experienced in the workshop are expected to increase awareness of original potentials for movement and pleasure in activity.
3. Changes in image structure (ISM) and body response to image are expected to be associated with changes in activity at follow-up

Units of Analysis

Analyses were performed by the researcher and assistant. Verbatim records were made during initial and follow-up interviews and were coded independently, then compared until consensus was achieved. Results of analysis were collected in separate tables for each of the subjects. A narrative was constructed from the table to describe the data presented in the table and provide connection to theory.

1. Symptom Pictures were evaluated for descriptions of physical and psychological symptoms worries or concerns. Self-report of symptoms were recorded using the subjects own words.
2. ISM order (ISM, IMS, SIM, SMI, MIS, MSI) – Case records were evaluated and coded as to sequence of image, somatic response, and meaning.
3. Positive/Negative association with each image was determined by negative quality of the image description or negative feeling associated with the image. Positive or negative quality to the meaning when presented was also noted.
4. Parental filters – image projected while keeping Mother or Father in mind – was evaluated for negative or positive quality of the image or somatic response to the image.

5. Symptom Connection – connection of symptom reported on symptom picture with a symptom observed in images projected in the EPT items were determined by observation, or inference. For example, use of same word or a clear association of a feeling with a problem described as a symptom, (feeling of disconnection, with wanting to belong).
6. Verbatim transcripts made, responses recorded in subjects own words.
7. Follow-up self report of changes in awareness and activity were evaluated in the same manner as initial interview.

Method

Subjects

Four volunteers were recruited who had experience working with eidetic images. This population was chosen to minimize the need to introduce imagery process in detail, making it possible to present the images in a 3-hour workshop. Future workshops will likely be done in a 6-hour format or with participants who have completed an extended intake which includes introduction to imagery.

Instruments

1. Initial interview was conducted individually to obtain background information, symptom picture, basic developmental picture (EP1, EP2), and exercise/activity eidetic diagnostic. (Appendix E, F, G, H, I) (Approximately 1 hour)

2. 3-hour workshop was conducted with all participants attending. A sequence of images was introduced designed to increase body awareness and engage signals for the core of movement. Slow potentials image is primarily a physiological image used to bring awareness to basic body process and engage the mind in its original state. The Body Scan exercise was used to focus attention in the body, discriminating sensation and locating areas of flow or stuck sensation or image. The Smelling Ice image introduces mythology at an original level and was used to initiate abdominal breathing. The Churning image is also a mythological image of creation and was used to activate the original body responses for movement. (Appendix, A, B, C, D) (3 hours)

3. Individual Follow-up session was conducted to identify changes in awareness, and likelihood or experience of movement or exercise. A portion of the exercise/activity diagnostic was repeated during this interview (Appendix J) (1 hour)
Approximately 5 hours were spent by each subject over a one-month period. Initial Interviews and Individual Sessions were conducted by the primary researcher and an intern from St. Edward's University trained in the procedures. Initial interviews and follow-up sessions were conducted face-to face. The same interviewers reviewed the data when it was completed and reported results in tables and case descriptions.

Results

Gender	Age	Marital	Occupation	Hours in Eidetics
Male	37	Single	Graduate Student Business owner	> 50
female	30	Single	Office manager	0-20
female	48	Single	Writer	21-50
female	36	Single	Graduate student	>50

Table 1. Demographic information - Subjects ranged from age 30 to 48 years old; all are single with a variety of occupations and Eidetic experience ranging from only a few hours to more than 50 hours.

Subject	Exercise Anticipation Pre	Exercise Anticipation Post	Exercise at Pre-Test Self-Report	Exercise at Post-Test Self -Report
S1	Negative	Positive	Decrease in favorite exercise Pain present	Increased Body awareness More activity Decrease in pain
S2	Negative	Positive	Negative feeling Low energy	Increased Awareness Increase in Activity Greater pleasure
S3	Negative	Mixed	Tired Happy then confused	Greater awareness of blocks to exercise Targeted source of problem and impact on exercise Lighter, More energy
S4	Negative	Positive	Nervous Worry about consequences of exercise	Greater awareness Positive memories Greater ability to relax Increased confidence

Subject 1: Case Report

Subject #1 is of normal weight and exercises somewhat regularly, however some degree of dissatisfaction in frequency or duration of exercise is reported. The subject identifies 16 physical symptoms, and psychological symptoms of stress and failure; with particular worry and concern expressed related to failure. The EPT items shows negative feeling of lack, expressed as "wanting to connect" with Father. These Eidetic symptoms of concern over failure and wanting to connect are also reflected in the Initial Exercise Diagnostic as follows.

Projected image data shows a negative anticipation response to the image of exercising although a positive response was given to the meaning. This suggests an effort (volitional control) to project a positive attitude even though the image connection is negative. Effect of Parental Filters on anticipation response further demonstrates this subject's tendency to focus on others and to rely on meaning for motivation. First purposeful exercise was experienced difficult, a response to a lack in self, which demonstrates an attempted solution the identified symptoms of failure and wanting to connect. A positive image of exercise follows an ISM order and as would be predicted, produces positive feelings of exhilaration associated with a positive image. The additions of parental filters however, shift the subject's attention away from self and onto others with feelings of concern, a negative feeling of being dragged down, and a focus on helping others to help self. The impact of parental filters is most notable for shifting focus to others and a negative impact of the Father filter.

At the follow-up, this subject demonstrated changes in every unit of analysis. ISM order changed with a notable decrease in meaning as the first or second element. This suggests that the subject was responding to image or to feeling, and that these two elements were connected with each other. This produced a positive impact on symptoms originally observed in the initial interview with a positive sense of connection associated with father as filter, and although the response to mother filter was still negative, the ISM order was restored, and the meaning is no longer deflecting the flow of the mind. This means the image has a greater potential for change. Important changes in symptoms emerged at follow-up related to the original symptoms of wanting connection and wanting to be accepted. Follow-up images show a release of these symptoms and a positive connection to enjoying exercise without caring what others think. This subject reports changes in actual experience of exercise, and greater awareness of self in everyday activities.

Subject #1 Analysis Table

(Parentheses indicate that particular tripartite code is missing. Or reviewers comments)

Data Source	ISM Order	+/- Imagery Association	Parental Filters	Symptom Connection
Symptom Picture				Stress, Fear, Failure (16 physical sx)
EP1	ISM	M + F -		Want to connect
EP2	ISM	M + F +		(Trying to control images)
Initial Interview				
Anticipation	IMS	- to image + to meaning		Nervous about making it happen Futile to do it once
Mother	IM(S)		Focus on her	(Disconnects from self)
Father	MSI	Surprised to see + image of Fa	Focus on him	(Motivation related to meaning)
First Experience	MS(I)	- to meaning		Difficult, alone a lot, Wanted to connect
Prior to First		Lack		Wasn't in best of shape Wanted to be accepted
Positive Experience	ISM	+ feelings exhilarated grounded		(Bipolar Opposite of Symptoms)
Mother	IMS		- feeling of Concern	Concern for her Help others to help self
Father	MS(I)		- feeling response	Drags me down

Data source	ISM order			(Changed related to symptom)
Follow Up				
Anticipation	ISM	+ inspired		Corrected neg. image association
Mother	SMI	- harder, shorter steps		Connected to self, experienced negativity of mother filter
Father	SIM	+ easier, together		Corrected intervening meaning + Feeling of connection to Father
Positive Experience	ISM	+ don't care what other people think		+ Feeling of self acceptance (not pleasing someone else)
New Awareness				Better sense of each movement having a series of actions, who the controller is, or where the centers of movement are. I am more aware I can reflect on movement while I'm doing anything Start with awareness of sensation and then awareness of movement
Effect on Awareness				I feel both the power and the resistance I more acutely feel the resistance I see the impact of parental images
Changes in Activity				Huge potential for helping people It feels better to exercise.

Subject #2 Case Report

Subject #2 is of normal weight and identifies some difficulty exercising and a significant decrease in a favorite type of activity which is distressing to the subject. This subject began the project reporting 16 physical symptoms, difficulty exercising and a general negativity with particular worries or concerns over jaw pain and low energy. Developmental images bring forward negative somatic responses, with direct connection to symptom of jaw pain.

Projected image data describes a person with significant developmental impact seen as negative images and negative somatic associated even when the ISM structure is in expected order. Disruption in the ISM order is particularly noticeable when the subjected was asked to use parental filters related to a positive exercise experience. This was accompanied by a negative somatic response. The subject began to exercise to fill a lack in self, trying to fit in and be part of something. There is a positive association with meaning which demonstrates positive thinking and motivation by an external goal (president's fitness test) but the underlying structure is revealed by the effect of parental filters that surface underlying feelings of helplessness and being "tripped up". This turns out to have connections in many areas of this subjects' life; a feeling of motivation, a good effort, only to be tripped up.

Follow-up data reveal increased positive body awareness, and increased activation of the body. In the week following the workshop, the subject engaged in a favorite activity which had long been avoided because of negative associations. The subject reported greater pleasure in the activity, with good feedback from peers. Even with this initial positive response, however, negative feelings of confusion and began to re-appear. Subject reports several intervening events that made it difficult to maintain focus on images, another example of a positive experience that was "tripped up" after a good start.

Future: the initial benefit with a subsequent loss of benefit when the subject stopped focus on the images highlights the need to continue work with the images to maintain benefit until the structure is internalized. For example for Subject 3, the barier of being "tripped up" needs to be addressed before the positive benefits of internal activation can be maintained.
Developmental issues that are identified in the imagery need to be addressed to support changes.

Once the pathways are open they are available but they need to be maintained open until the new experience is "absorbed".

Subject #2 Analysis Table
(Parentheses indicate that particular tripartite code is missing or comment by researcher)

Data Source	ISM Order	+/- Imagery Association	Parental Filters	Symptom Connection
Symptom Picture				16 physical symptoms difficulty exercising, negativity, jaw pain, low energy
EP1	ISM	M - F -		M: Frustrated, ignored, confused F: Ignored, confused
EP2	ISM	M – F- Inversion		Irritation, jaw pressure
Initial Interview				
Anticipation	ISM	- somatic response		Trepidation, tiredness, anxiety
Mother	ISM	- image assoc	M -	Image: Fell off the bench
Father	SIM		F +	
First Experience		Lack		Not good enough Determined and Strong assoc with meaning
Prior to First				Wanted to fit in Wanted to be part of something
Positive Experience	M(IS)	+ association to meaning		President's fitness test. Determined and strong
Mother	MS(I)	- feeling with memory		Helpless feeling
Father	SIM	- association with image and feeling		Confused (EP1) Tripped and fell

Data source	ISM order			Change related to symptom
Follow Up				
Anticipation	ISM	- somatic response		Pit in stomach, tired, sad
Mother	ISM		M + M – meaning	Energizing, motivated, but still pit (Initial excitement, then – negative memory)
Father	SIM		F -	Sluggish, losing confidence
Positive Experience	ISM	+ assoc. to Image		Feel centered and confident But still a little negative feeling in stomach
New Awareness				Positive body focus, positive body experience. Being "tripped up" has great significance in many areas of subjects life.
Effect on Awareness				Increased body awareness during workshop Increased feeling in right leg, with desire to move , a general feeling of balance and strength
Changes in Activity				Initiated a favorite activity, received + feedback, felt good Began to feel obstruction after a couple of weeks, even though things were going well.

Subject #3 Case Report

This subject is of normal weight reports no significant difficulties historically with exercise in general but does report a decrease in activity associated with illness and death of the subject's father. In the current data, there is negative somatic association with exercise anticipation, a positive effect of Mother image as filter, and an initial positive effect of Father as filter. This however, was short lived because it triggered a negative memory of father's illness, and sadness over his death which changed the image to a negative picture and produced a negative feeling.

To remove this obstruction, a second session was scheduled with this subject to work with the negative image. The method selected was a process called emanation in which a second self is brought forward in consciousness.

The second self image was still focused on father, not wanting to leave him behind, the third self image was teaching father, to strengthen him (subject noted heaviness in eye area, "not sadness, just heavy" which is seen as a change in perception related to the image). In the fourth self image, the subject actually saw the image of her dad swimming with strong legs, diving in from the starting block and relaying back and fourth, she reported a god feeling of competitive energy associated with the image (ISM structure is restored and intrusion of memory is relieved) (this was also accompanied by increased sensation around the eyes)

At follow up this subject reported positive ISM order, with positive somatic response, positive Mother and Father filters, and no intrusions of memory. Activity has increased, and experience of activity "feels different in some way" which is a good feeling.

Because the negative effect of the memory was so strong, this subject does not report much increased body awareness resulting from the workshop, and reports that her body is still out of her awareness and feel kind of "numb".

Subject #3 Analysis Table

(Parenthesis indicates that particular tripartite code is missing.)

Data Source	ISM Order	+/- Imagery Association	Parental Filters	Symptom Connection
Symptom Picture				
EP1				
EP2				
Initial Interview				
Anticipation	ISM	-somatic assoc.		Tired
Mother	S(IM)		M +	Pleasant, lighter,
Father	SM(I)	+ assoc with Father - assoc with memory		Happy, then confused because of a negative memory of father
First Experience				Has "always" worked out
Prior/after First Exercise				(Reduced working out because of a physical injury and becoming caretaker for father)
Positive Experience	ISM	Feel energized		
Mother	ISM		M +	Happy feeling, alive
Father	IMS	Stops image	F –memory	(Memory intervenes)

Data source	ISM order			Change related to symptom
Follow Up				
Anticipation	ISM	+ image assoc.		A feeling of lightness, Lighter than before
Mother			M +	More energy, together
Father			F +	Proud of myself, alone but proud of myself, it's a good feeling I like my body more, feel stronger
Positive Experience	IM(S)			(Focuses on happiness of others Doesn't register physically)
New Awareness				Lingering idea of exercise, planning ahead weekly Reminds me to take care of self
Changes in Activity				Increased from 0 to 10 minutes now to 35 minutes a day walking/running No ankle pain. Feels more alive, feels different in some way

Subject #4Case Report

This subject is moderately overweight, and has significant difficulty exercising due to symptoms of fibromyalgia, including muscle pain and fatigue. Thirteen physical symptoms were identified with worries and concern centered primarily on ability to exercise and potential consequences of exercise. Developmental images show usual ISM order with positive feeling response to father image and negative feeling associated with image of Mother. EP2 reveals a hemispheric inversion of parental images accompanied by a change in breathing pattern and a feeling of shortness of breath. This data suggests some physical tension patterns that affect breathing patterns associated with early interactions.

Projected image data from the initial interview shows the expected ISM order in the projection, but a negative somatic response of nervousness and anxiety related to uncertainty about trusting body response. Father image as filter projected a negative response that includes "can't keep up" and "disappointment". This makes the experience of exercise more difficult and decreases pleasure in activity. The negative impact of father filter is also evident in decreasing pleasure with a positive exercise image.

Follow-up data again shows positive associations resulting from an expected ISM order. The negative father filter continues, but appears not to have impaired the positive effects of image progression that occurs when the mind is focused on the image first, then the naturally occurring body response leading to new meaning.

This particular case study is particularly notable for ISM order. Every image was reported in the expected ISM order which means that the mind can proceed smoothly to become aware of obstructions and can find solutions. This allows a spontaneous image progression to occur with an opening and flow from one image to the next. New images and associated memories come to mind in this process. Physical obstructions came first into awareness, with a significant increase in awareness of the location and the effect of the holding pattern in the pelvic area. As this was released, the subject reported a sensation of oxygen flowing into muscles and a feeling of relaxation and pleasure in activity. Some negative response happened directly connected to the Father filter, but the subject was able to refocus and connect with the image.

Subject #4 Case Analysis

(Parenthesis indicate that particular tripartite code is missing or comment by researcher)

Data Source	ISM Order	+/- Imagery Association	Parental Filters	Symptom Connection Clients own words Or (comment by researcher)
Symptom Picture				Worry about ability to exercise and negative consequences from exercise. 13 physical complaints
EP1	ISM	F + M -		Fa. Comfortable, assured
EP2	ISM	F- M-		(inversion) feeling of shortness of breath
Initial Interview				
Anticipation	ISM	- association to image		Nervous about getting fatigued Cant trust my body, anxiety, nervousness, upper thigh to chest
Mother			M+	Decrease in symptom of tightness Release, oxygen flowing
Father			F-	Tightening in right leg, Nervous feeling, breathing shorter Worse than last image, breathing noticeably more effort Can't keep up with him, feeling of disappointment
First Experience	ISM (child) ISM (adult)			Gymnastics (age 13) Excited, no fear, likes to jump Free and strong, especially lower portion of body (age 27) Just got a bike, afraid of being hit by car, but once on it feels natural no fear. Body was starved for it. Lower body feels good and strong
Prior to First				Pregnant, depressed, felt good until had accident, healthier than ever till

				automobile accident Accident; pain hurt everywhere, tired and didn't know why, my body was a mess,
Positive Experience	ISM			Cycling, able to ride off her anger had lots of endurance, O2 flowing
Mother			M+	Smiles, joy, proud of her Feeling of camaraderie, doing it for her, wonderful, body feels relaxed
Father		No image	F -	Cycling stopped, can't see image, an abrupt halt, doesn't want to ride anymore, shut down

Data source	ISM order			Change related to symptom
Follow Up				
Anticipation	ISM	+		Feel very relaxed in hip area excited
Mother			M +	(positive memories emerge)
Father			F -	Not relaxing, its hurried
Positive Experience	ISM	+		Feel oxygen all over my body, it relaxes my muscles
New Awareness				Aware of blocked feeling in pelvic area How much I felt overwhelmed and shut down Not looking back any more (orientation to future)
Effect on Awareness				Awareness helped know what to release, Remembered positive experiences with exercise activity Significant release in hip/pelvic area Legs and abdomen more active
Changes in Activity				Increased from a few blocks to 1 mile X3 per week Eating is less No muscle pain Use images if I start to get messages of fatigue and everything relaxes

Discussion

Any investigation using such a complex phenomenon as an image presents significant challenges. It is far easier to reduce the variables sufficiently to establish control over the data and achieve statistical confidence in the result. This control however is an illusion because the human mind is complex and change occurs in unpredictable ways. In addition, the complex system of a human being is being changed, which is never a one-to-one relationship between an intervention and an outcome. The intervening variable is the person who is making the change. It is therefore necessary to study the person rather than the intervention, to determine what the person brings to the situation and how the intervention presented affects that individual. The present study used several methods to learn about the subject's involved and the structure and sources of obstacles which limit pleasure or likelihood of exercise activity. To do this several propositions were developed based on the theory of Eidetic Images including the ISM structure of the image, anticipation response, impact of parents as filters, and hemispheric position of images. Based on the psychosomatic connection of mental and physical events, we expected to see a negative symptom, such as difficulty exercising, associated with a negative mental structure as projected in an image. Various image tests applied were expected to locate or "target" this connection. An intervention of a workshop was then used to re-establish original experience and increase self awareness followed by a follow-up interview to explore changes. Changes in image structure and experience were expected to be associated with changes in likelihood and experience of exercise.

The propositions of this study were largely supported with every subject making changes in the expected areas, identifying blocks or barriers to activity in their images and reporting changes in type, level or experience of activity after imagery intervention. Notably, barriers to exercise had little if anything to do with exercise itself. In fact, barriers that were surfaced by the image, whether evidenced by a negative feeling association with the image or a disruption in the ISM structure, were intensely personal and either developmentally or trauma based. It appears that personal experience and the structure it creates, greatly affects desire and ability to engage in activity.

The precise association of image and body response allowed subjects to see exactly what was responsible for their experience, making subjects first aware of barriers to exercise and then opening to new experience. Negative associations with exercise were shown to occur more frequently when first exercise "on purpose" was due to a lack. The negative self image seemed to bring into play a negative experience of self even when external results were positive. Thinking, memory, and focus on meaning were associated with negative somatic responses and repetitions of memory which leaves the subject "looking back". One subject particularly noted a change in orientation toward the future as a significant change.

Focus on internal experience was associated with more positive self-experience. Focus on others moved experience associated with the image away from self and reduced self-awareness. When focus on image and then somatic experience did bring a negative association, this image was more available to change, and the image progression that will relieve the symptom did occur.

As expected, changes in ISM structure were associated with more positive images or more clear insight regarding what in particular is enhancing or blocking experience Positive change comes from freedom of mind to flow from image to image, with somatic response flowing and changing, and therefore meaning evolving and changing, resulting in new understanding. The two factors from previous literature of positive experience, fun, or pleasure, and internal motivation were both evident in this study.

The ability to target internal barriers to positive activity experience is of special importance in terms of what was learned from this study because seeing specific problems in the image will allow interventions to be directed exactly to the place where they will do the most good. In this case, the workshop was used as an intervention, but it should be noted that the image maneuvers used as tests in this study, for example, parental filters, may also have an impact by providing insight and increasing self-awareness.

The somatic connection to the image demonstrated by the ISM is also a key to success in motivation. This study demonstrates the negative result from associating positive feeling with thinking (meaning) when the projected image is negative. Re-ordering the ISM was associated with positive change in exercise behavior.

The ability to identify and relieve internal barriers and to build internal resources by recovering the original joy and pleasure in movement offers a whole new method of increasing motivation and performance. Focused deep within the individual, the Eidetic Image releases natural desire.

The present study was useful in discriminating in a general way the relationship between image structure as represented by the ISM and identified symptoms. It also provided the opportunity to explore using the anticipation response to understand how a person organizes themselves in preparation for an activity as well as coding responses using filters and positive and negative qualities of an image.

Limitations of the Study

This study showed individual changes but it is not possible to generalize from such a small number of cases. There was great variability even among four participants and while there was movement for all, the particular changes took very different forms. Since all of the participants in the present study had some experience with Eidetic imagery, it is not known how someone with little or no experience working in this manner would react. It is also possible that people with a high need for exercise, for example heart patients, people with diabetes might encounter different or additional barriers because of fear for their health. Further, participants in this study were of essentially normal weight, and had a general positive orientation toward exercise. It is not known from this study how the application would have affected people with significant weight problems or people who were resistant to the idea of exercise.

Indications for Further Study

The use of Eidetic Images as a method for exploring and changing motivation to exercise has exciting potential and further study in this area is certainly warranted. The precise ability to identify the ISM structure of a projected image as well as the positive and negative qualities of that image offers a tool for scientific observations. Expanding the system of coding image responses will allow a much broader use of the imagery method in scientific inquiry, allowing comparison of changes among individuals while accommodating the variability of individual process.

In terms of the present study, a larger sample group will be useful particularly with a wider range of demographics; age, marital status and occupation and levels of fitness. In addition, use of the application with various target groups, for example obesity, heart disease, diabetes, or cancer will provide useful information about specific barriers for these groups.

More extensive development of symptom information and the concerns about each of these will help to determine focus for next interventions as well as allow for unanticipated benefits; things that change which were not the focus of concern in the beginning. Working with individuals using the Eidetic Method, it is common that once the "glitch" or stuck place in consciousness is relieved, changes occur over an extremely wide range of symptoms. Often clients report changes that could not have been predicted from the original symptoms reported.

Working with obstructions in the image as with subject 3 in this study to release stuck processes in consciousness should be explored in terms of their ability to remove the obstacles to exercise. More information about process obtained during the workshop would have been helpful to more precisely determine what accounted for the body awareness that was reported. For example, written reports by subjects taken immediately after the image exercise, stating what they saw in the

image and what they felt during the image would establish a direct link between image and change in experience at that moment. The intake process itself was certainly useful but subjects also made references to particular exercises so it was not possible to determine how their awareness unfolded. Examining the sequence of images presented would provide useful information.

Along these lines, two of the subjects identified beginning an exercise program as a result of a "lack" within their self image. The use of an external process to fill this lack may have the unintended negative consequence of reinforcing the person's inability to produce the desired effect themselves. By contrast, if the person's innate desire were developed, such that exercise was the natural result of self expression, motivation might be a natural result. Use of the imagery process to accomplish this shift from external to internal motivation would be a significant contribution to the field of exercise motivation.

Specific barriers to exercise were targeted by the process in the present study and there was an initial change in awareness and exercise but it is not known what the long term effects of this brief intervention will be. A longer study to work with identified barriers, and to work with new problems should layers of obstructions come into awareness after the initial success would be useful in determining the long-term usefulness of these techniques.

Of additional interest were references to Oxygen. For instance, negative image of subject 4 with "breathing shorter and more difficult" and repeated references to feeling of "oxygen moving through body" associated with muscles relaxing with a greater experience of pleasure – needs further investigation of the effect of oxygen distribution past obstructions and the effect of image obstructions on experience and oxygen delivery in relieving symptoms. Ahsen's recent work in the area of exercise physiology would be an interesting area of exploration, perhaps changes in exercise experience or performance related to increased oxygen delivery.

The area of motivation to exercise is of significant importance considering the growing attention to health and fitness in this country. Much is known about the benefits of exercise and the mechanics of exercise but successful motivation remains, to a large extent, a mystery. The internal workings of desire and activity as a natural expression of the self present fertile ground for expansion of exercise activity and because of the precise nature of the ISM structure and the psychosomatic connection within the image, the Eidetic Image offers a pertinent vehicle for further investigation.

APPENDIX

Appendix A - Akhter Ahsen, (in press)

Slow Potentials

There are slow, graded potentials in the body which have their own consciousness. These are in the form of electrical impulses and explosions that extend between the sense organs and the brain. Experience is in the form of a constant flow of potentials, like waves and tides going in and going out, as in a playful sea.

1. There are slow potentials in the brain that have their own consciousness.
2. There are low grade explosions and electrical sparks and energy.
3. These extend from the brain and go to the sense organs.
4. There's a constant flow of slow potentials like waves and tides going in and out.
5. The organs and the brain are like parts of a musical instrument.
6. Altogether they create the wonderful music of ebb and flow made of slow potentials.
7. Slow potentials are different from your thoughts and separate from your ego.
8. Be with these slow potentials and their cyclic and even changeful music
9. This is the core of your being.
10. This is true consciousness; a basic feeling of the pure consciousness of your body.

Appendix B

Body Scan

This exercise is designed to bring the mind into the body. Attention is focused on various qualities of the body, discriminating and localizing awareness of sensation.

1. Scan through their body, moving your attention to various parts of your body
2. Notice what comes into awareness first.
3. Become aware of your body in terms of its length, width, density, thickness, flexibility.
4. Notice areas that feel open or blocked, flowing or sluggish
5. Notice differences between left and right sides, or upper and lower portions of our body.
6. Notice specific areas that feel hot or cold.

Appendix C

Smelling Ice - Akhter Ahsen, (in press)

In Viking mythology, we know that Ymir was made of hoary-frost - ice. His children are called Frost Giants and they build everything for the lesser gods. Ymir was a human giant made of ice; the beginning of everything. Let us experience his first breath, the root of his power.

1. Relax. Just relax where you are sitting. Remove tensions from yourself and just relax.
2. Close your eyes and become still; no part of your body is moving, you are just there.
3. Imagine you are made of ice and there is ice all around you.
4. Hold your breathing still and keep yourself still
5. Now smell the ice. The smell comes to you. You do not have to breathe to smell it.
6. When you smell ice, at that moment your breathing is still.
7. Ice smell is the first breath.
8. The smell of ice starts a different type of breathing which begins to run in your body.
9. It is a deeper breath and it bypasses the usual superficial breath
10. This still breath has underlying connection with all the organs of your body.
11. This is the healing breath that removes illnesses and contortions from your body.
12. The ordinary, superficial breathing has illnesses and contortions in it.
13. Now breathe this still breath which is the smelling of ice
14. The smelling of ice is the first breath
15. What is this like?

Appendix D

Churning of the Waters

The Mythology

The imagery pushes the body back in time. This is a new creation of the body cycle. The mountain is called Mandara and was on the earth. This is the union of the mother on the earth. But they wanted to bring the mountain into the ocean and churn the ocean with it to create a new cycle; a new first cycle of creation. So, Anantanga (the endless serpent), uprooted the mountain and along with the gods put it in the middle of the ocean then put it on the back of the turtle. Indra (god of thunder and lightening) balanced it on the back of a turtle. Indra's (Indra means nerves) role is to balance the nerves by little storms of electricity (along the nerve and the synapses).

Sea waves (feminine mind) were making the mountain a little unstable. The feminine mind makes the male mind a little unstable by pushing it around like waves. The serpent, Vasuki, was asked to wrap itself around the mountain like a rope, gods on one side, demons on the other side, and they began to churn. So good and bad are involved in churning the body, gods and demons. Everything is there in the churning movement. The demons are not all evil. This churning has unpredictable and difficult phases and consequences, but promises to be good in the end.

The Metaphor

This is a metaphor of the body. See it at a distance from your body and it is a replica of your own ocean of your body being projected outward so you can see it. The mountain is on the back of the turtle, which is low in the water, and the gods and demons are churning the water. You are using left and right sides of the muscles of your body.

One side of the serpent is one side of the body and the other is the other side of the body…from the legs all the way up. As you do this action, see that the sea swells around the mountain.

Start at a distance. If you have to identify with it, you may choose to come closer. Be right there as the ocean if you feel like.

Now we come down to Vrtra, the dragon of drought whose negative behavior locks up waters in various places of the body such as the abdomen, neck, lower back. The water is released by Indra, and as a result, joins the ocean. The sap from the trees at the mountain is the symbol of sexual juices. There is more sense of release.

Akhter Ahsen, (in press)

Appendix E

Demographic Information

(1) Name: _____

(2) Date: _____

(3) Age: _____

(4) Gender: _____

(5) Marital Status: _____

(6) Occupation: _____

(7) How much Personal work have you done in Eidetics?

_____0-20hours _____21-50 hours ____More than 50hours

Appendix F

Informed Consent

You have been asked to participate in a research project exploring the application of principles of Eidetic Imagery to exercise, movement, and activity. Participation will require approximately 5 hours of your time in a blended model of face-to-face, phone, email, or faxed communications that we hope will accommodate your schedule. The project will include an initial interview, one three-hour workshop with other participants, two write-ups that you do on your own, and two interviews following the workshop which will be scheduled at your convenience. The project will last for approximately one month beginning early in November, 2007.

All participants in this study are students currently in the Eidetic Training at the Eidetic Imagery Institute at Austin. Interviews and data evaluation will be conducted by an Intern from St. Edward's University, Ian Birdwell or Dr. Swafford.

The project includes written and experiential components. Information will be collected about general symptoms, basic developmental dynamics, and exercise history. During the workshop and interviews, Eidetic images and maneuvers will be used to examine mental and physical structures, and to relieve associated symptoms.

Participation in this project is expected to be personally informative and a benefit to the participants in terms of self-awareness and symptom relief. The risk of negative effect is remote but, should any problem arise, a referral will be made for additional work to remediate the difficulty.

You may withdraw from this study at any time without penalty, but because of the nature of the design, confidentiality is limited to other participants, who will not be informed of your withdrawal.

I have read the above and understand the nature and process of this study. I agree to participate in informational and experiential components of the project.

Name_____ Signature _____

Witness_____ Date: _____

Appendix G

Symptom Picture

Do you have difficulties or concerns in the following areas?
That relate to your body? Please check the areas.

Head	( )	Heart	( )	Thighs	( )
Skull	( )	Lungs	( )	Calves	( )
Scalp	( )	Breasts	( )	Feet	( )
Hair	( )	Abdomen	( )	Arms	( )
Temples	( )	Stomach	( )	Hands	( )
Back of Head	( )	Intestines	( )	Fingers	( )
Neck	( )	Genitals	( )	Fingernails	( )
Cheeks	( )	(testicles in Males;		Body Joints	( )
Ears	( )	uterus in females)		Body Muscles	( )
Eyes	( )	Menstruation	( )	Skin	( )
Nose	( )	(in females)		General Energy	( )
Jaws	( )	Urethra	( )	Breathing	( )
Lips	( )	Urination	( )	Voice	( )
Mouth	( )	Bowel Movements	( )	Hearing	( )
Teeth	( )	Rectum	( )	Sight	( )
Tongue	( )	Sexuality	( )	Sleep	( )
Throat	( )	Spine	( )	Memory	( )
Esophagus	( )	Back	( )	Feelings for other	
Larynx	( )	Pelvic Area	( )	people	( )

Chest	( )	Buttocks	( )	Anything else of	
Shoulder	( )	Legs	( )	significance	( )
Blades	( )				

Emotional or Psychological symptoms:

Worries or concerns:

Akhter Ahsen: Eidetic Parent's test and Analysis

Appendix H
EP1: House Image

Picture your parents in the house where you lived most of the time with them, the house which gives you the feeling of a home. Where do you see them? What are they doing? How do you feel when you see these images? Are there any memories connected with this picture?

Write here what is seen in the mind.	

EP2: Left/Right Position of Parents

Now set aside this picture of the house and see your parents standing directly in front of you. Tell me, as you look at them, who is standing on your left and who is standing on your right? – Now try to switch their positions. – Do you experience any difficulty or discomfort when you do this? Try to switch their positions again. – Do you again experience any difficulty? Do you feel that these images are independent of your control?

Write here what is seen in the mind	

Akhter Ahsen, Eidetic Parent's Test and Analysis

Appendix I

Exercise Interview

EXERCISE ANTICIPATION **1. See yourself getting ready to exercise** **2. See yourself thinking about exercise**	
PARENTAL EXERCISE FILTERS **3. See yourself exercising keeping Mother in mind.** **4. See yourself exercising keeping Father in mind.**	
FIRST EXERCISE EXPERIENCE **5. See an image of the first time you intentionally exercised "for a purpose" ,or as "a program"**	
WHAT WAS HAPPENING PRIOR **6. What was happening just before you first began an exercise program?**	
POSITIVE MOVEMENT EXPERIENCE **7. See a positive experience that involved movement or activity.**	
POSITIVE MOVEMENT WITH PARENT FILTERS **8. See yourself in the positive movement keeping Mother in mind.** **9. See yourself in the positive experience keeping Father in mind**	

Appendix J

Follow-up Interview

I. Symptom report: what symptoms are you currently experiencing
III. Changes in Awareness

A. What did you become aware of during the workshop?
B. What have you become aware of since the workshop?

IV. Effect of changes in awareness.

A. How has any awareness from the workshop affected you?
B. Have there been any changes in exercise or activity (level, likelihood, experience of activity)

V. Repeat Exercise Anticipation, Filters, and Positive Experience.

A. See yourself getting ready to exercise
B. Exercising keeping Mother in mind
C. See yourself exercising keeping Father in mind
D. See self in a positive exercise/activity experience

Comments:

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Biography

Katy Swafford, Ph.D. is a Psychologist in private practice and founder of the Eidetic Imagery Institute in Austin, Texas. She also teaches in the counseling program at St. Edward's University. With 30 years clinical experience in body oriented approaches, Dr. Swafford conducts research in applications of Eidetic Imagery. Contact information: Eidetic Imagery Institute, 3355 Bee Cave Road, 1-104, Austin, TX, 78746 katyswaffordphd@sbcglobal.net

United States Association for Body Psychotherapy

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Jacqueline A. Carleton, Ph.D.
Editor
USA Body Psychotherapy Journal
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