From Psychosomatics to Neuropsychoanalysis: Contributions of the Paris School

Joseph Dodds

Abstract

This paper reviews the contributions to psychosomatics and psychoanalysis of the Paris School (Ecole de Paris), founded in 1963 by Pierre Marty, Michel de M'Uzan, Christian David and Michel Fain. The Paris School and the Paris Psychosomatic Institute (IPSO), building on classical Freudian theory, can be seen as a pioneering psychoanalytic approach to the psyche/soma and interesting forerunner of neuropsychoanalysis, to which it is now making significant contributions in the form of the French Group of Psychoanalysis, Medicine, and Neuroscience. The Paris School's work has been further developed by analysts such as Joyce McDougall (1974, 1989) and the so-called 'second generation' of Marilia Aisenstein (2006) and Jean Benjamin Stora (2007a).

Freud and the Origins of Psychosomatics: Conversion Hysteria, War Trauma and Actual Neuroses

for a psychic factor to play a role in the genesis and persistence of these affections (Freud, 1923a [1922]) French psychosomatic medicine has developed along specifically psychoanalytic lines in the Paris Psychosomatic School (Ecole de Paris) and the Paris Psychosomatic Institute (L'Institute Psychosomatique, IPSO), founded by Pierre Marty. The Paris School draws its theories from Sigmund Freud, whose work on conversion hysteria, actual neurosis, and war trauma provided "a starting point for the Paris Psychosomatic School's psychoanalytic approach to patients afflicted with somatic illnesses." (Aisenstein 2006, 667). In *Beyond the Pleasure Principle* (1920), Freud explores different types of trauma and notes the intriguing fact that often the existence of a minor physical

lesion seemed to protect the individual from a traumatic neurosis.

the psychoanalytic treatment of obvious organic disturbances is not without a future, since it is not unusual

The violence of the physical trauma liberates a quantum of excitation...all the more disorganizing...because there has been no preparation for it by means of (signal) anxiety. However, a physical injury...may allow an incorporation of the excess excitation through a 'narcissistic hypercathexis' of the affected organ...Freud notes that pathological mental symptoms such as melancholia or even chronic dementia praecox may temporarily disappear where there is a simultaneous organic disorder. (Aisenstein 2006, 668)

What findings like this and psychosomatics as a whole force us to face, is the perennial mind-body problem: the "mysterious leap" (Freud 1916-17, 229) between psyche and soma, the "explanatory gap" or "hard problem" (Chalmers 2004) of modern neuroscience. This is an aspect which runs throughout the work of Freud, who was "preoccupied with the relations between body and mind and the fact that psychic processes grow out of organic ones" and who "constantly emphasized the tendency of the human organism to function as a whole" (McDougall 1974, 441-2). Aisenstein (2006, 667), in her review of the Paris School, claims "the discoveries of psychoanalysis offer a perfectly cogent and unique solution to the famous mind/body problem. In transferring the duality

psyche/soma on to the duality of drives, psychoanalysis places the origin of the thought process in the body". Freud does not focus on the conflict "between the body and its desires on one side, and the psyche and its wishes on the other; rather, contradictory forces may come into conflict at a single somatic site" (Aisenstein 2006, 668). One example comes from Freud's most explicitly psychosomatic paper, 'The psycho-analytic view of psychogenic disturbance of vision' (1910) where he describes conflicting forces creating the organic symptom by forcing the eye to serve two masters at once. The hysterical conversion "makes the body into a language, the symptoms tell an unconscious story, and all mental activity finds its source in the erotic libido" (Aisenstein 2006, 668).

Freud dealt with psychosomatic themes as early as his 1890 paper 'Psychical (or Mental) Treatment' (Freud 1890, discussed by Nadelman 1990) and defined 'psychical' treatment of either mental or physical illness "by measures which operate in the first instance...upon the human mind" (Freud 1890, 283). Symptoms occur due to "a change in the action of their minds on their bodies" and this influence occurs largely through the realm of emotion: "The major affects evidently have a large bearing on the capacity to resist infectious illnesses" (Freud 1890, 287, quoted in Nadelman 1990, 444), an argument very much in tune with recent developments in neuropsychoanalysis (Panksepp 2004, Solms and Turnbull 2003, Gerhardt 2004). Freud goes on to claim that all thought necessarily has some associated emotion (a finding congruent with modern neuroscience, see Damasio 2000), which results in physical excitations needing to be discharged through the body. Finally, in this paper Freud describes the strange phenomena of symptoms improving the moment the doctor enters the room.

'Psychical (or Mental) Treatment' was not printed again during Freud's lifetime, and it seems to have been overlooked in the last hundred years. This paper introduced a psychosomatic point of view a century ago, and it laid the groundwork for what was to become a psychoanalytic approach in this field...Freud for the first time spoke of the patient's feelings about the doctor and their importance for the outcome of the treatment, although the term transference had not yet been introduced. The concept of countertransference is also clearly delineated in the same context, along with the proscription against the doctors' discharging their positive or negative feelings in their relations with patients...[and Freud claims] that affects such as depression can play a role in causing physical illness. (Nadelman 1990, 446-7)

Freud's position on the 'mysterious leap' involves the combined effects of genetic, psychosomatic, environmental and psychodynamic factors, where mental and physical states interact via emotion effecting the body's capacity to resist diseases. Freud thus anticipated later studies on the effect of psychological factors on immune and hormone systems, an important focus of the Paris School and French neuropsychoanalysis, which take a more 'body-centred' approach rather than the more 'brain-centred' neuropsychoanalytic mainstream. Evidence for Freud's position comes from an extensive literature connecting adverse life events (divorce, death of a spouse/parent, combat

related trauma, abuse) and increases in somatic disease such as cancer or heart disease (Lillberg et al. 2003, MacKenzie 2005). Further research shows 'psychical' treatment can be effectives, for example Spiegel (1989, 981) reported that breast cancer patients receiving group therapy lived twice as long on average as controls who had the same somatic care but without therapy, concluding that "neuroendocrine and immune systems may be a major link between emotional processes and cancer course."

Freud distinguished between two main types of *somatization*: actual neurosis (neurasthenia and anxiety neurosis) and conversion hysteria. McDougall (1974, 440) comments that "Whereas in hysterical conversion we witness the 'mysterious leap' from mind to body, in the concept of the actual neuroses there is a leap in the opposite direction".

In Freud's conception the 'actual' symptoms were principally...of a physiological order devoid of symbolic meaning and therefore not truly within the scope of psychoanalytic treatment...brought about as a reaction to actual everyday tension, and in particular to the blockage of libidinal satisfactions...[and] closely related to certain modern conceptions of psychosomatic reactions, though today the notion of psychic 'pressure' would lay equal emphasis on the blockage of aggressive impulses and on all that might be subsumed under the term of environmental stress... [For Freud] conversion hysteria and actual neurosis both arose from sexual sources but whereas the latter was related to present day sexual problems, the former stemmed from the sexual conflicts of early childhood and...retained their symbolic significance (McDougall 1974, 440)

In hysterical conversion, the somatic symptoms are symbolic and refer to a fantasy body: "inhibitions of bodily functioning such as constipation, impotence, frigidity, psychogenic sterility, anorexia, insomnia and so on have come to be considered as closely allied to classical conversion symptoms. In every case *the symptom tells a story*" (McDougall 1974, 441). Freud's intuitive insights, especially concerning the 'actual neuroses', provides the basis for the psychosomatic approach of the Paris school, which Aisenstein (2006, 668) describes as "a logical development of psychoanalysis", arguing that "the psychoanalytic treatment of patients suffering from somatic disorders is...a return to the very sources of the psychoanalytic quest."

Pierre Marty, 'Mechanical Thinking' and the Paris Psychosomatic School

In the 1940s and 1950s a new interest in psychosomatics emerged, including the work of Helen Dunbar (1939) and Franz Alexander (1950) in the US Jean-Paul Valebrega (1974) and Pierre Marty in France. Marty was a psychoanalyst, psychiatrist, psychosomatician, and former president of the Société Psychanalytique de Paris (SPP) and so was firmly at the heart of French psychoanalysis when he founded the Paris School in 1963 and IPSO in 1972. Marty suggested that just as somatic patients are treated by many types of doctors, they should also be treated analytically (Marty, M'Uzan, and David, 1963) and he discovered that many of his hospitalized patients

were "sensible, rational...unemotional" (Aisenstein 2006, 669), a state he labeled "mechanical thinking" (Marty and de M'Uzan 1962). This refers to loss of the ability to fantasize, symbolize and mentalize, involving "flattened affect and an impression of unusual detachment", and "thoughts that are pragmatic in the extreme":

'What kind of woman is your mother?'...'Well, she's tall and blonde.'...'Were you upset when you ran over this woman with the baby?' 'Oh, I was insured against third party accident.'...These have a psychotic resonance, yet there is no resemblance to a psychotic ego functioning in other aspects of these patients' lives...De M'Uzan has pointed out that the outstanding feature of such thinking is its detachment 'from any truly alive internal object representations'. (McDougall 1974, 445)

Later theorists replaced 'mechanical thinking' by "mechanical life' or 'mechanical functioning' as it involves not thought but 'anti-thought' (Bion's -K), a "defence against internal disturbance and disorder" (Aisenstein 2006, 669). In the Paris School's mission statement, *Psychosomatic Investigations* (Marty, M'Uzan & David, 1963) they lay out their theory, explaining how the loss of ability to fantasize (operative thinking) leads to a 'progressive disorganization' which can continue indefinitely as normal psychological defences and structures break down. Physical symptoms, formed via somatization, are attempts to arrest the disorganization process, and an expression of disorganization on the somatic plane: "In our way of thinking of the economy of the human being as a psychosomatic unity, disorganization can include somatic as well as psychic disorder" (Aisenstein 2006, 669). Mental work protects the body against somatic disorganization, and such patients can be treated analytically. Marty's theory was put into practice at the Poterne-des-Peupliers Hospital, now known as the Pierre Marty Hospital, a world centre for psychosomatic medicine, research and training, with a staff of 50 psychoanalysts, and an institutional base for the Paris School to clinically validate and theoretically refine their approach.

The Allergic Object Relationship

I have provisionally given the name allergic object relationship to the kind of relationships encountered in patients suffering from...allergic conditions, especially asthma or eczema. (Marty 1958, 98)

We will now focus more closely on Marty's work, starting with his 1958 paper 'The Allergic Object Relationship', a relationship involving "the subject's incessant endeavour to come as near as possible to the object until he merges with it...in an indistinct mass". This process "is immediate, complete, and violent, and bears the mark of a most archaic character" (Marty 1958, 97) which appear as early as the first interview:

During the first minutes of the interview the allergic patient often makes a series of slips which show that he is confusing the physician's personality with his own. 'I have come to see you because you are suffering from asthma.' Here we apparently have a mechanism of projection of which the effect is incomparably more extensive than that with which we are familiar in the neuroses and psychoses (Marty 1958, 97).

Furthermore, the patient "quickly gets to know what the physician wants and does his best to supply it in a phase of triumphant identification...'You certainly wish me to tell you about your mother" and despite writing that this involves a "projection which is part and parcel of a process of participation essentially pertaining to identification" (Marty 1958, 97), the author does not make explicit use of Klein's (1946) concept of projective identification or its extension in the work of Bion (1984) and others (Ogden 1992). However his description could be fruitfully rethought in these terms. For example, the allergic "subject exercises a double activity due to the obliteration of the boundaries between the object and himself...a projective activity by which the subject tends to endow the object with his own qualities" and "an identifying activity by which the subject endows himself with the qualities of the object" which "binds the subject firmly to his object" and "transforms the object into an undifferentiated mass" (Marty 1958, 97). The concept of 'adhesive identification' developed by Bick (1968) and Meltzer (1975) may be even more appropriate here, as it grasps both 'adhesive' and somatic aspects. As with Marty's theory, failures in Bick's (1968) 'second skin' (resulting in holding the self together through sticking in fantasy to the outside of objects) or Anzieu's 'skin ego' (1993) involve disturbances in the earliest relation.

The primary contact between mother and baby are of a tactile nature and allow the infant to constitute an initial representation of a flat psychic space...the skin ego...[which if not adequately formed] does not allow her to contain the violence of her feelings....She has hardened her excitation shield, which has become a "shell," a "wall" that protects as well as prevents her from live human exchanges...her disorders of the nonverbal behavior...reflect a poor ego organization acquired during infancy. (Anzieu 1993, 46-7)

This early bodily interaction between mother and child, and its effects on psychological development is becoming increasingly important in psychoanalysis (eg. Stern 2000) and neuroscience as well as psychosomatics and such affinities may aid integration and communication (see also Szwec 2006). Marty compares his patients "confusion" to "a sponge which absorbs and retains" which he illustrates with clinical material: "I like to be stroked...That is certainly why I love cats" (Marty 1958, 97). "I am so dependent on you...I am you" (Marty 1958, 101). "I cannot live within myself, but only united with another person." (Marty 1958, 98). Marty names this a 'host-guest' object which can be rapidly cathected, or decathected if "abandoned for another 'host-guest' object' (Marty 1958, 98) and can include the non-human and the non-living:

the interpenetration of the subject and the object occurs at first as an active, violent, and massive grasping of the object and then, more smoothly, as a gradual control...the allergic patient lives in an agitated state because of his need to merge with the objects he encounters and because of his choice of certain objects which are manageable insofar as they are almost perfect 'host-guest' objects. He identifies himself with each object present and can only detach himself by means of identification with a new object...the allergic ego is theoretically very weak: controlling objects is its principal activity. It is inconsistent, has apparently no existence of its own, and its essential value resides in the value of the objects found...(Marty 1958, 99)

Severe regression can occur in such patients in three situations. First, when host-guest objects suddenly disappear. This is catastrophic because, as McDougall (1974, 452) writes, psychosomatics are unable to mourn or process mentally and so instead react somatically, for example her analysands with tuberculosis who with one exception "had fallen ill at times in their lives when they were facing separation or abandonment by people who unconsciously represented the addictive mother of early babyhood...Instead of opening their hearts to grief it seems they opened their lungs to invasion by tubercular bacilli" a statement which brings to mind Kafka. The dependence here is "less a sexual dependence than a protection against the loss of identity, feeling and the threat of total annihilation" (McDougall 1974, 451) and thus allied to anxieties of the paranoid-schizoid position. The second 'danger situation' occurs, "when an already cathected object suddenly reveals a new quality which is beyond the subject's capacity for identification" (Marty 1958, 99), the third "when major incompatibilities are felt to emerge between two cathected 'host-guest' objects" which Marty (1958, 100) compares to the Oedipal situation. Whichever danger, once regression is triggered "the allergic reaction seems to play the part of a line of defence, hindering the disintegration of the personality" (Ziwar, quoted in Marty 1958, 100). At such times:

the symptom bursts into full force and the somatic syndrome thus becomes established for a more or less long period. That the emotional defence is a regressive substitute for an object relationship in allergy is a fact of great importance for the psychosomatic conception of the illness...it implies a very archaic and, in my opinion, a prenatal level of fixation." (Marty 1958, 101)

Such symptoms can appear and disappear rapidly during the analytic session, depending on transference dynamics, and can in fact occur in all people: "In the final analysis this intensely active and complete identification of allergic patients... is nothing more than a violent and unalterable expression of a fact which exists in all of us: that of 'being' the other person... it is the degree of this activity which makes the patient allergic" (Marty 1958, 102).

Somatization, Disorganization and Essential Depression

Progressive disorganization can be defined as the destruction of the actual libidinal organizations... It partially corresponds to the Freudian concept of diffusion...In most cases, disorganization ends in a process of somatization because it is pursued on the somatic level. (Marty 1968, 246)

In a later paper, 'A Major Process of Somatization: The Progressive Disorganization' Marty (1968) expands on what he considers the main process underlying somatization in psychosomatic patients, and clearly distinguishes the psychosomatic structure from neuroses (including hysterical conversions) and psychoses arguing that "a clinical incompatibility exists between progressive disorganization and neurotic regression...the disorganizing

movement clashes with the systematized defences which succeed in stopping it completely...the best organized libidinal defences...constitute the most effective barriers against disorganization" (Marty 1968, 246). So how does this 'disorganization' work? Marty (1968, 246) writes that "following the break of a first emotional tie, a chain reaction gradually leads to the rupture of every emotional tie" resulting in a general "de-cathexis of all libidinal areas", or what he calls essential depression. In this state:

neither the classical regressive mechanisms, nor any libidinal tie of a neurotic, psychotic or sublimatory nature, are found...no sign of the anxiety, guilt, or sado-masochism which are present in other kinds of depression. The patient loses interest in life which seems empty to him. We are not dealing here with a masochistic withdrawal or...massive depression, but with a generalized disorganization. (Marty 1968, 246)

Essential depression is "characterized not by sadness or pain, but by a lack of desire: patients are tired, they want nothing, they give the impression of being elsewhere and they do not complain". There is also an "absence of emotional life and fantasies" and it has therefore been called "white depression' or 'depression without an object' because patients deny that they mourn or that they miss someone or something, instead, they 'just feel empty'." (Aisenstein 2006, 669). The effects of disorganization are catastrophic. Gradually libidinal systems are removed "giving way to the functional destruction of the subject" and a "real physiological anarchy" (Marty 1968, 247).

In terms of topography, the psychic agencies lose their original functions...the superego detaches from its personal history, vanishes as such, and finally assumes an archaic form, idealistic, absolute, and shadeless. Personal life is then confined to the actual and the banal. Of the original personality only an empty form persists...Somatization is favoured by such a progressive disorganization which...provokes an essential depression and...sets up an "operational" system of life. It is then that a host of psychosomatic disorders... appear and disappear alternately...the initial destructive movement goes its way without meeting any preestablished system of deviation or blockage. Little by little, it shatters functional wholes, causing a serious libidinal loss. The fragile defence mechanisms collapse one after the other. (Marty 1968, 247)

Marty concludes his paper by arguing that the interest which psychoanalysis has shown in neurosis and psychosis should also be given to studying psychosomatics and disorganization, a process he succinctly summarizes:

A slight trauma, acting as a narcissistic wound, incites the subject to give up certain emotional interests. What follows is the progressive chain destruction of the various cathected sectors and of the existing libidinal organizations. An "essential" depression ensues, introducing serious psychosomatic disturbances which prolong the general disorganization on the somatic level. Such clinical phenomena are one of the clearest manifestations of the death instinct. (Marty 1968, 248)

Marilia Aisenstein and the Second Generation of the Paris School

Clinical work with patients with severe somatic illness involves difficult work where "the possibility of dying always remains present" (Aisenstein 2006, 671), something with important countertransference implications. As an example of a modern psychosomatic treatment, we shall explore the case described in Aiesenstein (2006, 670). 'P'

a 33 year-old beautiful, athletic woman "felt completely unconnected with the sequence of major illnesses she had" and "could see no relationship between her inner world and the serious and 'objective' somatic health problems that had befallen her in the previous two years: cancer in each breast treated by chemotherapy and a mastectomy, followed by a cerebrovascular accident" (Aisenstein 2006, 671). She presented "Negativity, absence of mental symptamology, effacement of any emotional sign" including an anaesthesia of the senses, feeling "neither hot nor cold…related to a diktat against feeling and thinking" which she linked to her first menstruation. A dream from the end of the second year of analysis summed up her state: "a landscape like a still life, in which everything was white and frozen – and yet the ice was not cold" (Aisenstein 2006, 671).

I focus here on three dramatic moments in the therapy. The first followed successful reconstructive surgery on her breasts and a canceled session (by the therapist). P dreamed "Her brain hurt... everything is red, everything burns; she calls the fireman and wakes in an indescribable terror... with a shooting headache, tried to get up, lost her balance, dragged herself out to the landing and called for the firemen". She felt the dream saved her from death from her second stroke as it "alerted and helped' her 'to react appropriately'" (Aisenstein 2006, 672). The second moment occurred while P was undergoing a series of tests into the cause of the cerebrovascular accidents. One expert suspected paroxystic tachycardia. She agreed.

This was something she had been aware of for a long time...'What? You felt it, you knew about it, and you never spoke to me about it, not to me, not to anyone?' I was both stupefied and alarmed and I felt betrayed. 'No', she answered calmly, 'I did not speak about it because I like it...*It made me feel like I was alive*'. Her reply seemed incredible. Violent feelings of anger...unusual for me, made me realize that...that she allowed herself the somatic signs of being in love while avoiding...actually being in love, thereby dispensing with the object. Such a redirection into the body...is frequently observed by psychosomaticians...in my patient's case it seemed pathognomonic of her avoidance of subjectivity. (Aisenstein 2006, 672)

Analysis of this led P to speak "for the first time of her lack of a love life" which was "related to a maternal quasi-nymphomania". P recalled a "series of painful memories in which the feeling of shame was dominant, arising from experiences of an intruding, brutal sexuality into her imaginary infantile world." (Aisenstein 2006, 673). The third moment followed immediately after this, when she canceled a week of sessions due to stomach pains and on return said her gynaecologist had diagnosed an ovarian cyst and arranged emergency surgery and a biopsy: "P was very worried and despondent. I myself was shaken, worried and dismayed in face of what I saw as the savage violence of this irruption of the soma into the long process of constructing an erotic body." P then dreamed:

I'm at the clinic where I'm supposed to be operated on for the ovarian cyst. I'm in a bed and awaiting the tests. My two breasts hurt. A nurse comes in, which disturbs me, in order to carry out some tests. I pretend I'm asleep in order to escape from her, but she blows anaesthetizing gas into my mouth and nostrils. I'm

terrified and imagine behind my closed eyelids that I'm imprisoned by a white veil. I thrash around and end up waking myself up. She cried silently, then said she was afraid of the anaesthesia. She was even insisting on having an epidural in order to remain conscious. (Aisenstein 2006, 673)

She then said that during the operation for her first cancer she learned upon waking that they had 'dug around the uterus' in search of polyps at her mothers request. She had never mentioned this memory to the analyst, which even then made her want to retch [Haut-le-coeur, 'to retch', more literally 'the heights of the heart'].

I said, 'Retch?' She smiled and said, 'An unerotic tachycardia'. I replied, 'But a traumatic and sexual tachycardia nonetheless, because you've just told me that for the past 10 years you've hidden from me something which you experienced as a rape organized by your mother'. P cried for a long time, but silently, then said that she had thought she could take care of this alone in her head. P then said thoughtfully that anaesthesia and sleep often came back to her in her dreams...At the end of the week, she rang to ask the secretary if her usual session had been held for her. A preoperative ultrasound had shown that the lump had all but disappeared... The surgery that had been planned was therefore canceled. (Aisenstein 2006, 673-4)

Of course it is not possible to determine the causal effect of the analytic work and her mental state on the cyst's appearance and disappearance, but this event heralded a major shift in the analysis. In all three moments we see an important turning point resting on the deep and complex relationship between mind and body which the sensitive psychosomatician has to tease out, whether it is a dream warning of an impending stroke, a psychological state which prevents the search for appropriate treatment, or the possible effect of analytic work on P's cysts. It is worth emphasizing that Aisenstein stresses the importance for all analysts to be aware of these dynamics, not just psychosomaticians, a point echoed by McDougall (1974, 438) when she claimed she could not think of a single psychoanalytic case without some psychosomatic symptoms: "In the attempt to maintain some form of psychic equilibrium...every human being is capable of creating a neurosis, a psychosis, a pathological character pattern, a sexual perversion, a work of art, a dream, or a psychosomatic malady."

Marilia Aisenstein is part of the 'second generation' of the Paris School which includes Claude Smadja and Benjamin Stora. The first generation (Marty, Fain, David and de M'Uzan) "constructed a very coherent theoretical system founded on drive monism, in which only the life drives were subject to 'life movements' or 'death movements' (or moments of disorganization)...related to extremely precocious trauma impeding the oedipal complex from becoming completed" (Aisenstein 2006, 678). The second generation have tried to rethink Marty's concepts drawing on the work of Andre Green on narcissism, the negative, and a death drive "characterized by pure unbinding". However Aisenstein (2006, 678) feels that "unbinding alone does not suffice in explaining the phenomenon of 'mechanical functioning' when the latter is not transitory. I retain Marty's hypothesis that assumes the existence of very early trauma". Aisenstein (2006, 678) also argues that for the second generation "it is no

longer possible to neglect the concept of splitting in the field of psychosomatics."

an initial splitting, clinically silent since it concerns endosomatic perceptions, worsens the effect of the radical unbinding of the defused death drives...[This may] explain the destruction of psychic working through and the putting into place of this enigmatic system of survival we call mechanical thinking: a form of anti-thought which is concrete, cut off from its roots of its drives and disembodied.

Thus, the second generation allow us to explore links with other developments in psychoanalysis, a work which apart from developing theory and technique, allows those from outside the context of the Paris School to integrate it into their everyday therapeutic practice. With this in mind we now turn to the work of Joyce McDougall.

Theatres of the Body: The Paris School and Psychoanalysis

My reflections on this particular phenomenon have been much enriched by the extensive research into psychosomatic illness carried out by my colleagues in the Paris Psychoanalytical Society. I refer in particular to the works of Marty, Fain, David and de M'Uzan...Research into the meaning and treatment of psychosomatic illness is at the crossroads of various scientific disciplines...I can describe only that picture which may be obtained through the psychoanalytic microscope (McDougall 1974, 438-9)

We will now turn to Joyce McDougall's excellent paper 'The Psychosoma and the Psychoanalytic Process' (1974), and her later book *Theatres of the Body* (1989), which bring together the Paris School's psychosomatics and the more general theory and practice of psychoanalysis with a focus on the earliest phase of life where "psyche and soma might appear to coincide" but "the principal cartographers [of this area] after Klein being Winnicott and Bion...tend to show that the psyche grows out of the soma almost from birth".

The psychic material which enters into the primordial fusion of mother and nursling is composed of smells sounds, and visual and tactile sensations. These are in themselves despatializing factors...[favouring] the setting in motion of one of the earliest of psychic mechanisms, subsumed under the concept of projective identification [which]...dominate until such time as language spatializes and limits the psychic structure... delimiting the inner and the outer world, while at the same time the infant begins to inhabit his soma. He becomes embodied. (McDougall 1974, 437-8)

This is the area prior to the world of 'Little Oedipus', where "the much smaller Narcissus who must come to terms with the definitive loss of the magical breast-mother and with the ineluctable demand to create psychic objects which will compensate for his loss...The anxieties to which this primal separation give rise are usually qualified by terms such as annihilation and disintegration" (McDougall 1974, 438). She further argues that to overcome these difficulties involved in becoming an individual, of separating 'me' from 'not-me' "the baby must first have been seduced to life by his mother" (McDougall 1974, 438), a creative process leading to the psychic structuring.

Failures in this area are of a "more global, more 'psychosomatic' nature than the problems encountered in coming to terms with sexual realities" the tasks of 'Little Oedipus', and lead to "more catastrophic results". But although

catastrophic, they "may go unnoticed while its insidious effects continue, silently, like the Freudian death instinct. When this occurs, body and mind have somehow lost their connecting links" (McDougall 1974, 438).

Turning to psychosomatics itself, McDougall draws the following basic principles for a psychoanalytic approach based on the Paris School. First, the "psyche-soma functions as an entity...every psychological event has its effect upon the physiological body just as every somatic event has repercussions on the mind, even if these are not consciously registered." Therefore, if at any time we fail to process mental pain psychologically, "psychosomatic process may take over" and so we can say that the psychoanalytic process is "the antithesis of psychosomatic processes". Finally, psychosomatic symptoms occur in all kinds of patient, in analysts, and are a "common phenomenon in the population at large." (McDougall 1974, 439-442)

The Psychosomatic Personality Structure vs. Neurosis and Psychosis

If psychosomatic personalities may be said to be 'antineurotics' due to their inability to create neurotic defences...they may also be considered as 'antipsychotics', in that they are 'over-adapted' to reality...The desperate search for facts and things in the external world and the tendency to treat people as things in an attempt 'to grasp at some fragment of experiencing' (McDougall 1974, 448-9)

McDougall elucidates the Paris Schools idea of the "psychosomatic character pattern" (Marty, M'Uzan & David 1963) and compares it to the "mechanized robot" of science fiction, "without a shred of emotion or identification with human wishes and conflicts" (McDougall 1974, 441). This has five main aspects:

- i. Unusual object relationships, lacking in libidinal affect.
- ii. Impoverished use of language marked by 'mechanical thinking'.
- iii. A marked lack of neurotic symptoms and neurotic character adaptations.
- iv. Facial movements, bodily gestures, sensorimotor manifestations and physical pain will appear where one might expect neurotic manifestations.
- v. Preliminary interviews are characterized by a type of inertia (McDougall 1974, 450)

McDougall, following Marty, M'Uzan and David (1963) differentiates psychosomatic illness from hysteria: "in hysteria the body lends itself and its functions to the mind to use as the mind wills, whereas in psychosomatic illness the body does its own 'thinking'...carried out with, sometimes literally, deadly precision." Compared to hysteria, the "drama which is being expressed is a more archaic one and its elements have been stored differently" (McDougall 1974, 441). Thus psychosomatic structures are somewhat akin to psychoses, in both "the mind, which leads an existence detached from the reality of the body which contains it, suffers immeasurable damage. The links...have been destroyed (not repressed)" (McDougall 1974, 444). However, there are crucial differences:

The ego, instead of detaching itself from external reality may create another sort of splitting, in which the instinctual body is not hallucinated but *denied existence through psychic impoverishment*. Instead of some form of psychic management of disturbing affect or unwelcome knowledge or fantasies, the ego may achieve complete destruction of the representations or feelings concerned...The result then may be a *super-adaptation to external reality*, a robot-like adjustment...which short-circuits the world of the imaginary. This 'pseudo-normality' is in fact a widespread character trait...a danger sign pointing to the eventuality of psychosomatic symptoms (McDougall 1974, 444)

The psychosomatic, will create a somatic symptom to "attempt to make substitute objects in the external world do duty for symbolic ones which are absent or damaged in the inner psychic world". However this results in "endless repetition and addictive attachment to the outer world and external objects." (McDougall 1974, 449). In fact, it is often an important sign of progress when psychotic or neurotic fantasies appear as from the start the psychosomatic ego has smothered "the archaic elements of fantasy" and thus is "split off from its instinctual roots, leaving few elements available for the creation of psychotic delusions." (McDougall 1974, 450)

whereas the psychotic child clutches at a delusional 'monster' to palliate the lack of the internal object brutally projected outwards, the psychosomatic...has precociously laid his monsters to rest...[as] deeply buried archaic fantasy elements encapsulated somewhere in the unconscious...at a presymbolic level...We all contain such still-born monsters...neither allowed to grow up nor projected in hallucinatory fashion but simply neglected...what is missing is something much more subtle. Perhaps a concept such as negative hallucination might be invoked here [which] Bion (1988) Green (1973) and Fain (1971) have each explored in different ways (McDougall 1974, 449).

The psychosomatic may need to develop enough to be *able* to "recreate their psychotic monsters, and live with them even in projected form for a while, until such time as they can be contained and integrated", allowing them "to feel alive in new ways" (McDougall 1974, 450). However this process of converting psychosomatic into psychotic or neurotic symptoms (via a hystericalization' or 'obsessionalization') involves serious dangers as the fantasies are often disturbing due to their archaic and sadomasochistic quality where "many perverse and 'crazy' creations come to life" (McDougall 1974, 450). One patient with gastric pathologies and skin allergies developed in a hysterical direction and "complained bitterly of the frightening quality of the fantasies which crowded his mind when he was in a state of sexual frustration, and of the analysis which permitted such fantasies to exist."

I keep imagining that some men have tied my testicles with wire...they throw me forcefully into a deep chasm, again and again, until my testicles are torn off. But the most terrible part of it all is the tremendous sexual excitement it gives me. I'm sure I'm going crazy and it's all your fault!" (McDougall 1975, 454)

Another patient suddenly started to fantasize about ingesting his partner's faecal matter accompanied by "massive erotic excitement". The fantasies began to take on an obsessional dimension.

As his experiments in creating fantasies around fleeting emotional states and bodily sensations continued, he began to invent day-dreams whenever he felt the painful sensations which he knew to be premonitory of a recurrence of his gastric pathology. These fantasies were usually of an incorporative nature, drinking sperm, eating skin, biting off nipples and heads of penises, etc. (McDougall 1974, 454)

The results were dramatic, resulting in the removal of the years-long gastric symptoms, which together with "the whole digestive area became an object of psychic interest to my patient and threw much light on other aspects of his life and character structure". He came to allow his obsessional fantasies to "evolve and to come into connection with other ideas, notably the growth of authentic sexual desire and his first truly libidinal love relationships" (McDougall 1974, 454). In both cases here we have the emergence of perverse fantasies (obsessional or hysterical) which represented opportunities for mental growth which the analysis was able to contain and process effectively, and in any case "Although there are finer creations of the spirit than perversion and psychosis, in the long run it is better to be mad than dead" (McDougall 1974, 450, emphasis added).

The Semiotics of Psychosomatics: Signs, Symbols and Preverbal Signifiers

...it was inevitable that analysts would concern themselves with psychosomatic symptoms arising in their analysands and would try to decode their meaning...to reconstruct the underlying fantasy formations which the somatic symptoms might be thought to symbolize, following the well-known pattern of the hysterias. (McDougall 1974, 442)

McDougall (1974, 442) suggests that psychoanalysts, whose very bread and butter involves the work of the symbolic in mental life, are in danger of falling into the fundamental error of not recognizing the fundamentally asymbolic or even anti-symbolic nature regarding of psychosomatic symptoms, for example assuming "a peptic ulcer is caused by the fantasy of a devouring-persecuting mother, or that the tubercular bacillus is an introjected part-object with bad intentions". Marie Bonaparte (1960) saw precisely this risk in psychosomatic medicine, labeling it a "new vitalism", although McDougall (1974, 443) argues that the elaboration of such fantasies, which while not being causal, will tend to attach themselves to somatic symptoms as a result of the analytic process and therefore "may provide the analysand with new pathways for dealing with psychic tension" by linking "primary and secondary modes of thinking, thus creating new ways of feeling and experiencing".

There are important countertransference issues here as analysts, "primarily interested in man's body as a mental representation held through the network of language" may "feel lost without their symbols" (McDougall 1974, 444). Psychosomatic symptoms may come to represent "a narcissistic affront to [the analysts] interpretative powers" (Fain & Marty, 1965), leading to a "lack of interest in his patient's psyche-soma when it behaves in ways which put it beyond the reach of the analyst's sphere of influence" (McDougall 1974, 444). Psychosomatic symptoms are *not* symbols but signs following "somatic rather than psychic law." (McDougall 1974, 441)

Signs represent the body or bring messages from it; they do not symbolize it. The body only becomes symbolic when, taking the place of something repressed, it enters into relationships of meaning with other psychic representations. (McDougall 1974, 444)

The body in psychosomatics is not the imaginary or symbolic body of hysteria, but the 'actual' body (following Freud's 'actual neuroses'), or what in Lacanian terms might be called the Real body. In *Theatres of the Body*McDougall (1984) studied how disturbances in the early dyad create somatic responses in the infant unable to symbolize experience through language. Rather than repression, we have in the psychosomatic a 'foreclosure' (Freud 1918) which Lacan (1959), referring to psychosis, described as a "primordial expulsion of a fundamental signifier...from the subject's symbolic universe" (Laplanche and Pontalis 1973, 166). The 'return from the Real' Lacan describes in the case of the psychotics hallucination, occurs in the psychosomatic in the 'Real' of the body. Rather than the 'acting out' of borderlines, psychosomatics are "acting-in in the body" (Aisenstein 2006, 670).

Unlike Lacan, what is foreclosed is the not the once symbolized and then ejected, as psychosomatic originate in a "presymbolic order that circumvents the use of words" (McDougall 1989, 168). McDougall here draws on Freud's idea of the sign where the "word presentations" is absent, leaving only "thing presentations", or what McDougall (1989, 168) calls "preverbal signifiers". These could be interpreted as Bionian beta-elements, unable to be digested or strung together in symbolic chains of the thinkable. Without an alpha-function to think, fantasize, or dream (Bion 1984), the psychosomatic is trapped in a preverbal merger of "one body for two", an idea with resonance in the neuroscience of empathy (Watt 2007), and Gallese's 'shared neural representations' (Mancia 2006).

A way is open here to a wider concept of semiotics to understand the "signs of the body", such Kristeva's (1984) "semiotic" of the body which continuously disrupts and dislocates the symbolic of language, an argument supported by Kalinich (1994). Kristeva's "semiotic" is prior to language and formed in the "maternal chora", the archaic mother-child matrix, a domain which includes the musical and rhythmic dimensions of language. Such "preverbal signifiers" are "dynamically powerful, unconscious elements expressed in the form of a perceptual or somatic registration of emotional arousal, which must then be decoded by the psyche and subsequently carried into action" (McDougall 1984, 53). Contemporary neuropsychoanalysis is approaching this very area from a variety of angles, including a broader semiotic approach (Olds 2000) and a firmer grasp of how this dynamic plays out in the neurochemistry of brain and body. This includes studies of implicit memory and the 'early unrepressed unconscious', a domain Mancia (2006) feels is accessible through dreams, the 'musical' dimension of the transference, as well as through bodily reactions and sensations in both patient and the analyst.

Psychoanalysis, Psychosomatics and Infant Observation: Integrating Perspectives on the Early Dyad

I have often been confronted with patients who treat their bodies 'like a foreign land'...[This] has brought me close to Winnicott's thesis, in which the the 'integration of psyche and soma' form the basis of the true self (Winnicott 1984). One notes in passing a certain proximity between mechanical functioning and the false self...[specifically] the 'conformity' of these patients. But this question, which I have only begun to go into, requires further reflection (Aisenstein 2006, 678).

Much of the work so far has pointed to disturbances in the early dyad in psychosomatic disorders, and thus we may learn something about psychosomatics from infant observation research. For example, Michel Fain (1971), a colleague of Marty at the Paris School, looked at the "earliest beginnings of fantasy life and their role in the predisposition to psychosomatic illness" and found that many cases of infantile asthma and allergies showed, as well as serious sleeping difficulties, similar patterns where mothers only allowed infants satisfactions gained from direct contact with themselves. Fain (1971, in McDougall 1974, 446) suggests "these mothers unconsciously wish to bring their children back to foetal bliss inside their own bodies". In *mérycism*, babies continually regurgitate and swallow their stomach contents, and often have mothers imposing severe restrictions, reacting "to thumb-sucking as though it were a truly Oedipal masturbation to be suppressed at all costs" (Fain, 1971). These babies usually sleep well as "the baby has created prematurely an autoerotic object which enables him to dispense with his mother...but there is nevertheless a serious symbolic gap in that the mother's absence is in no way compensated psychically; it is totally disavowed" which may lead to splitting psyche and soma (Winnicott 1966).

McDougall (1974, 447) compared these children to those studied by Spitz (1962) "who, because of early maternal failure, never indulge in what he describes as 'normal genital play' that is, spontaneous hand-genital play of infants who have a harmonious and stable relation with the mother" and thus are unable to 'use an object' in creative play (Winnicott 1971). McDougall (1974, 447) writes "it is a question of leaving the baby too much or too little psychic space in which to be mentally creative on his own". Or both. One patient complained his mother was both abandoning and controlling and said "my outbreaks of eczema reoccur whenever I feel abandoned by my fiancé. And also during your holidays! But whenever I feel manipulated and controlled I get these crippling back troubles again. Feeling abandoned and being controlled are both ways of bringing my mother back".

In this context, McDougall draws on Bion's idea that "before symbolization is possible there first needs to develop the ability to represent the state of 'no breast'." Unlike in psychotic states where "the 'good' and the 'bad' become projected outward as idealized and persecuting objects", in psychosomatics the "different breast representations are simply excluded from the symbolic chain, and decathected without compensation" (McDougall 1974).

Transforming beta elements into 'digestible' alpha-elements, allows the psychosomatic's 'larval fantasies' to find symbolic and affective expression, reducing the need for bodily evacuations. Bion's (1959) 'attacks on linking' can be applied to the psychosomatic where it takes the form of "an attack on fantasy life and on the capacity to represent affect" (McDougall 1974, 455). Finally Bion's (1990) theory of the 'proto-mental system' where psyche and soma remain indistinguishable, can also be usefully applied in the context of the Paris School, such as where Valebrega (1974) attempts to conceptualize a "singular mode of organization which underlies both [psychical and somatic] mechanisms". In addition, psychosomatics, allied with advances in neuropsychoanalysis, can help flesh out Bion's more abstract theories in this area. Some recent papers on Bion and modern neuroscience (Kennel 1997, Dodds 2008) may help with mapping these complex interactions.

Bion, Winnicott and Spitz can can help to tease out the early mother-infant interaction in psychosomatic patients and are useful for 'thinking through' the work of the Paris School, as they are all "coming to grips with the same complicated area of human experience" involving "a breakdown in object relations due to the attempt to make an external object behave like a symbolic one and thus repair a psychic gap" (McDougall 1974, 455). Psychoanalysis, psychosomatics, infant observation, neuroscience and the interdisciplinary project of neuropsychoanalysis can all provide different 'microscopes' with which to conduct research "into the meaning and treatment of psychosomatic illness...at the crossroads of various scientific disciplines" (McDougall 1974, 439).

Neuropsychosomatics: Stora and the French Group of Psychoanalysis, Medicine, and Neuroscience

When the human being is overwhelmed by excitations, tensions, and frustrations, and the psychic apparatus is no longer able to absorb them because of its fragility and its weakness, *it is the body that takes over.* (Stora, 2007a)

We conclude this paper by looking at the emergence of French neuropsychoanalysis. The French Group of Psychoanalysis, Medicine, and Neuroscience is a regional group of the International Neuropsychoanalysis Society led by Jean Benjamin Stora, a psychoanalyst (SPP) and psychosomatician, and former President of the Pierre Marty Institute of Psychosomatics (1989-1992) and the Société Française de Médecine Psychosomatique (2000-2002). Emerging directly from the Paris School and French psychoanalysis, the French Group consists of

psychoanalysts, psychologists, medical doctors, and researchers from different fields of medicine who aim to connect psychoanalytic, neuroscientific, and somatic findings and approaches on a wide range of issues. They run regular conferences, workshops, seminars and hold an office for consultations and have studied a wide range of phenomena from their unique interdisciplinary perspective, grounded in a solid psychoanalytic core, including for example work on sleeping and dreaming in patients with cardiovascular disease, the role of the death drive in the "syndrome de glissement" (slipping-away syndrome) of old people, dependency and narcissism in addiction, and the psychodynamic consequences of amputation (Stora 2004, 123). Recent seminars have focused on femininity and somatizations such as breast cancer, amenorrhea and obesity, in the context of fixation, reproductivity, the hypothalamic stress-response, and religious aspects of feminine sexuality (Matthis & Stora 2005, 115-6).

In 2006 Stora published *La neuro-psychoanalyse*, the first book in French on neuropsychoanalysis, which he attempts to ground in an epistemological model integrating psychosomatics, psychoanalysis and neuroscience, to build a solid platform for interdisciplinary research. He critiques neuroscientific models which view the mind/body as a "biological automaton" and instead draws on complexity theory to argue for a model of "the living organism" where "new properties will emerge at each level...At the highest level we find the 'psychic apparatus' as described by Freud, and it is interrelated with the central nervous system. Such a model could form the basis for a neuro-psychoanalysis" (Stora 2004, 123-4). He argues that classic 'mind-brain' neuropsychoanalysis should incorporate a neuropsychosomatic perspective, including neurohormonal and neuroendocrine systems, stating that: "Man is not only neuronal but basically psycho-neuro-hormonal" (Stora 2007b, 232) and proposes a neuropsychosomatic approach to Freud's psychosexual stages "to make these into comprehensive organizations that are no longer restricted to the psychic apparatus...giving way to a continual process of integration of the psyche, the organic functions, and the central nervous system" (Stora 2007b, 232).

In his latest book, *When the Body Displaces the Mind*, which Mark Solms called "the first neuro-psychoanalytic foray into the fascinating and important field of psychosomatic medicine", Stora (2007b, 232-3) claims "it is no longer a question of psychosomatic diseases *but the role that the psyche plays in all diseases without actually being their cause*. The psyche participates in the defence of both the organism and the immune system, and it must be examined in relation to the somatic functions and organs." Here Stora argues against the compartmentalization of science at a time when as Solms writes "the boundaries between disciplines have recently been seriously

challenged in the neurosciences" (Solms, in Stora 2007a), as divisions preventing more comprehensive attempts to address the complexities at the mind-body interface, which he sees as a major challenge for 21st century thought.

Futures

What about the future of the Paris School? While difficult to predict, it seems promising, with the emergence of neuropsychoanalysis and the International Neuropsychoanalysis Society leading to a resurgence of interest in psychosomatics and with the Paris School filling in some of the missing links with the body. Another positive sign is the new diploma launched in 2006: 'Integrative Psychosomatics, Psychoanalysis, Medicine and Neurosciences', from which the first wave of a new psychosomaticians, researchers and clinicians are now graduating. Finally, with the breaking down of some of the more resistant walls to interdisciplinary research, and with growing scientific interest in phenomena occurring at the mind-brain-body border, the wealth of knowledge of the Paris School grounded firmly in the psychoanalytic tradition, surely has a lot to offer. It represents one of the most fully worked out and clinically validated attempts to investigate psychosomatics, an area "at the crossroads of various scientific disciplines" (McDougall 1974, 439). The French Group is now attempting to describe that picture from a variety of angles, opening up new vistas for the psychoanalytic 'microscope' of Sigmund Freud.

REFERENCES

Alexander, F. (1950) Psychosomatic Medicine. New York: Norton.

Aisenstein, M. (2006). The Indissociable Unity of Psyche and Soma: A View From the Paris Psychosomatic School. Int. J. Psycho-Anal., 87:667-680.

Anzieu, D. (1993). Autistic Phenomena and the Skin Ego. Psychoanal. Inq., 13:42-48

Bonaparte, M. (1960). Vitalism and Psychosomatics. Int. J. Psycho-Anal., 41:438-443

Bick, E. (1968). The Experience of the Skin in Early Object-Relations 1. Int. J. Psycho-Anal., 49:484-486

Bion, W. (1990). Experiences in Groups and Other Papers. London: Routledge

(1984). Elements of Psychoanalysis. London: Karnac

(1959). Attacks on linking. In: Second Thoughts. London: Heinemann 1967, pp. 93-109.

Chalmers, D (2004). How Can We Construct a Science of Consciousness? In Gazzaniga M. (ed) *The Cognitive Neurosciences III*. MIT Press,

Dodds, J. (2008). Artificial Group Psychodynamics: Emergence of the Collective, in *Emulating the Mind*. Springer Dunbar, F. (1939). Psychoanalysis and Somatic Disfunction. *Psychoanal Q.*, 8:108-111

Fain, M. (1971). Prlude la vie fantasmatique Rev. franc. Psychanal. 35 291-364.

Fain M. and Marty P. (1965)

Freud, S. (1890) Psychical (or Mental) Treatment. SE: 7: 281-302

(1910). The Psycho-Analytic View of Psychogenic Disturbance of Vision. SE: 9: 209-218

(1918). From the History of an Infantile Neurosis. SE: 17: 1-124

(1920). Beyond the Pleasure Principle. SE: 18: 1-283

Gerhardt, S. (2004). Why Love Matters: How Affection Shapes a Baby's Brain. London: Routledge

Kalinich, L.J. (1994). Theaters of the Body. J. Amer. Psychoanal. Assn., 42:258-260

Klein, M. (1946). Notes on some schizoid mechanisms. Int. J. Psycho-Anal., 27:99-110

Kristeva, J. (1984) Revolution in Poetic Language New York: Columbia Univ. Press

Laplanche J. & Pontalis, J.B (1988). The Language of Psychoanalysis. London: Karnac

Lillberg K. et al. (2003) Stressful Life Events and Risk of Breast Cancer in 10,808 Women: A Cohort Study . *Am J Epidemiol* 2003; 157:415-423. S

MacKenzie D. (2005). Trauma of War Hits Troops Years Later. New Scientist. August 25, 2005.

Mancia, M. (2006). Psychoanalysis and Neuroscience. Springer

Marty, P. (1958). The Allergic Object Relationship. Int. J. Psycho-Anal., 39:98-103.

(1968). A Major Process of Somatization: The Progressive Disorganization. IJPA. 49:246-249.

(1990). La psychosomatique de l'adulte. Paris: Presses Universitaires de France

Marty P., M'Uzan M. and David, C. (1963). L'Investigation psychosomatique. Paris: Presses Univ. de France.

Marty P., and M'Uzan M. (1962). La pensée opératoire. Revue française de psychanalyse, 27, Spec. issue, 345-36

Matthis and Stora (2005) The French Group of Psychoanalysis, Medicine, and Psychosomatics: New Psychosomatic Horizons. *Neuro-Psychoanalysis*, 7:115-116

McDougall, J. (1989). *Theatres of the Body: A Psychoanalytic Approach to Psychosomatic Illness*. London: FA (1974) The Psychosoma and the Psychoanalytic Process. Int. Rev. of Psycho-Analysis, 1:437-459

Meltzer, D. (1975). Adhesive identification. Contemporary Psycho-Analysis, 11, 289-310.

Nadelman, M.S. (1990). Centennial of an Overlooked Freud Paper on Psychosomatics. Psychoanal Q., 59:444-450

Ogden, T, (1992). Projective Identification and Psychotherapeutic Technique. London: Karnac

Olds, D. (2000). A Semiotic Model of Mind. Journal of the American Psychoanalytic Association: 48, 497-530.

Solms, M. and Turnbull, O. (2003). *The Brain and the Inner World: An Introduction to the Neuroscience of Subjective Experience*. Other Press

Panksepp, J. (2004). Affective Neuroscience. USA: Oxford University Press

Spiegel, D. et al. (1989). Effect of psychosocial treatment on survival of patients with metastatic breast cancer *Lancet* October 14, pp. 888-891

Spitz, R.A. (1949). Autoerotism—Some Empirical Findings and Hypotheses on Three of its Manifestations in the First Year of Life1. *Psychoanal. St. Child*, 3:85-120

Stora, J.B (2007a) When the Body Displaces the Mind: Stress, Trauma and Somatic Disease. London: Karnac (2007b) Psychoanalysis, Medicine and Neuroscience Group, Paris. Neuro-Psychoanalysis, 9:232-3

(2006) La neuro-psychanalyse. Paris: Presses Universitaires de France

(2004) The French Group of Psychoanalysis, Medicine, and Psychosomatics: Nouveux Horizons Psychosomatiques. *Neuro-Psychoanalysis*, 6: 123-4

Stern D. (2000) The Interpersonal World of the Infant. Basic Books

Szwec G. (ed.) (2006). La Peau [The Skin]. Paris: PUF

Takahiro, M. (1999), The Current Trends of Psychosomatic Medicine in Other Countries. The Current Situation of Psychosomatic Medicine in France. Japanese Journal of Psychosomatic Medicine, Vol.39, No. 1, 35-43

Valabrega, J-P. (1974). Problèmes de théorie psychosomatique. In *Encyclopédie médico-chirurgicale: Psychiatrie*. Paris: E.M.-C. (Original work published 1966)

Watt, D. (2007). Toward a Neuroscience of Empathy: Integrating Affective and Cognitive Perspectives. *Neuro-Psychoanalysis* 2007, 9:119-140

Winnicott, D. W. (1971). Playing and Reality. New York: Basic Books.

(1966). Psycho-somatic illness in its positive and negative aspects. Int. Journal of Psychoanalysis.