

The Integrative Mind: The Witness and Ambiguity of Suffering

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Abstract

Adolph Meyer's theme of the integrative function is placed in the context of Ribot on personality and Joseph Breuer on effort and the contrast of *sthenic* and *asthenic* ideation.. The kind of analysis pursued by Meyer is taken in this way back to the language of constitutional medicine, and specifically Berthold Stiller's *asthenia*, and Janet's related concept of psychical insufficiency. Conversion hysterias are placed as the metabolic face of the same syndrome group, with consciousness emerging as the interface between metabolism and environment. The pattern of psychopathology as a whole is analysed in terms of the *tonic* and *phasic* processes, as understood by A.R. Luria, following Pavlov and Vygotsky. Their neurology is further reinterpreted in the light of Merleau-Ponty on the embodiment of significance in the *gestalt*. Integrative interactions arising show a contrast of *harm-avoidance* and *reward-dependence*, colouring habituation with motivational style. The disruption of learning is traced to confusion in the generic sense that merges with noise, whereby Meyer's insistence that mental disorder is a product of unfortunate circumstances is extended to the internal, physiological environment, consistent with the growth of both supportive therapies and detoxification and rehabilitation programs.

Functional psychopathology has a long history, and a controversial one. In the Hippocratic corpus, *The Sacred Disease* questioned the received view of this condition and suggested that it may be treatable by regimen. A combination of diet and exercise was again recommended for more familiar mental disorders by Thomas Sydenham, mentor of John Locke. When the French reformer Tuke famously struck the chains off asylum inmates, he was parading the new empiricism pioneered by Locke as the fruit of Revolution. On into the era of professional psychiatry, the condition known as 'nervous exhaustion' or *neurasthenia* was routinely treated with the Weir-Mitchell rest cure, marking the high

point of the Hippocratic program. Justifying this approach was the perception that the pace of life had greatly increased, especially in the larger cities, to the point of flooding the nervous system with stimuli.

Captured in this view was also the traditional term *asthenic*, which Joseph Breuer (1895: 277-8) contrasted with *sthenic*, in much the sense that English gives us *impressions* in contrast to *impulses*. The asthenic affects of fright and anxiety linger as impressions, he reasoned, while affects reflecting impulses can be 'discharged' in activity. The background of this terminology lies forgotten in the annals of constitutional medicine. In Freud's day this tradition was still represented in Vienna by teaching in the Medieval tradition, and did not attain a modern form before Kretschmer (1948), but was then taken as an historical oddity (Kallman, 1953). Yet we have from Berthold Stiller (1907) in Budapest a treatise on asthenia, and his route to this work is well worth investigating.

As early as 1870 Stiller examined the reflex concept in the light of physiology and pathology, and a decade later returned to neurology on the theme of *trophic nerves*, said to be specific to the *trophic level* or position in the food chain (Stiller, 1881). He then passed through studies of digestion in relation to dyspepsia and neurasthenia to asthenia (Stiller, 1889, 1896). In this way Stiller brought the light of evolution to the ancient theme of the vegetative and animal souls, and through his line of research the idea of a vegetative function passed into psychiatric usage. It was thus Stiller and not Freud (1905) who first considered the organization of the nervous system in relation to specific objects and aims in relation to them.

This evolutionary history may seem irrelevant to a human world transformed by cooking and agriculture, but this appearance conceals some important, inescapable constraints on organic existence, which being concealed are all the more likely to plague us. Vegetable foods are generally alkaline, while meats are acid, as are grains, due to their high amino acid concentration; this has important bearing on a condition like dyspepsia. It is also the case that acting on tough or hard substances like hide and bone is something our manufacturing activities have in common with the ways of predators. It was again Stiller who reached into the background of the contrast Freud (1913) posed between self-preservation and mastery.

Amongst the several notable pupils of Charcot, one hears least of Théodule Armand Ribot [1839-1916], and yet his book *La psychologie anglaise contemporaine* set the trend for much that followed. Here Ribot praised Spencer for his insight into mental evolution, where others looked to the positivist Comte, or later to Baldwin or Romanes, and he saw in Spencer the definitive refutation of the empiricism of sensory elements due to Locke and Condillac. Like Hume and J.S. Mill, Spencer took experience in the sense of situations or events, and with the logic of adaptation added, what results is a functionalism, long familiar in medicine from Galen.

Ribot initially served under Charcot at the Salpêtrière as assistant physician, a position that offered the widest experience of the patient population, and experience not owing formal allegiance to any program of research. Accordingly we see him focussing on clinical description, in the tradition of the alienists going back to Tuke, but also influenced by the likes of Mesmer and the curious discourse known as *spiritual dissociationism*. The phenomenon of dissociation was already recognised, and in respect of personality, taken as the factor of individuality in the aggregation of ideas (Haule, 1984). From this period we have Ribot *Disorders of Memory* [1881] and *Disorders of Personality* [1885], whence the notion of personality disorder entered psychiatric vocabulary.

From 1883 we have also what came to be known as *Ribot law*: that the most recent experiences are most readily lost to injury or disease, and the last to be recovered (Miller, 1991: 42). Memory in this guise appears as an impress of experience upon the organism, like lines etched into the face, and subject to disfigurement by injury, which can only heal layer by layer. It was, then, in mute deference to Ribot that Bergson (1889, 1897) placed memory as the material foundation of mind, leaving the mind free to intervene in the unfolding of events. Personality Ribot presented as "a hodge-podge, a collection of odds and ends, conditioned upon bodily changes," (Murphy, 1929: 185), so presenting individuality as the happenstance of experience patterned by the process of maturation. The term *conditioned* is used here in the classical sense amplified by Pavlov in Russia, and personality as the resultant is accordingly a matter of *dispositions* or propensities to act. Particularly in the light of Herbert Spencer placing the environment as the critical factor in evolution, Ribot's understanding passed as a 'genetic' account, to be echoed by Stanley Hall and refined somewhat in the perspective of the life-cycle.

Although this imagery has little resonance in the English literature, Ribot was a formative influence in French structuralism. Hence the well-known image in Lévi-Strauss of the human subject as a *bricoleur*, a handyman, making do with what lies to hand. This matters a good deal where development takes the subject into new roles carrying unfamiliar expectations and significances, and must 'busk' performances from unrelated experience: each time something old in the subject's performance is misrecognized in the new situation, and rendered to the subject ambiguous or contradictory. This is not misrecognition in the sense of Lacan, which proceeds from the side of the subject, but that must be expected too, so that this world of *bricolage* is replete with *meanings obscured*, and the Freudian notion of repression may seem redundant.

It will in general be less and less the case that a subject's performances are regularly reproduced "under stimulus control," as the formula of behaviourism runs. Etienne Balibar and Louis Althusser then came from Marx to a more radical structuralism, where structural change appears as a matter of "*bricolage* ('putting-about'). The *bricolage*, without a human *bricoleur*, puts together bits and pieces from the trash-heap of the previous structure, like a junk dealer, a

tinkerer working with pieces of used material," (Shalvey, n.d.: 109). This is just the logic of elemental materialism and *structural selection*, acting not through reproduction and only for the stability of structure or material endurance.

Such intuitions were long familiar from the Latin classic of Lucretius, *De Rerum Natura*, but now abstracted in the spirit of modernism for a world ruled complacently from palaces of neo-classical design, seeming destined to outlast everything around them. With Ribot intent in this way on assimilating psychology to the classical heritage, it could seem to Joseph Breuer unquestionably true that one neural tissue cannot at once sustain memory and follow the stream of consciousness. For all their differences, Freud did not care to question this assumption either, so we pass here *behind the scenes* of Freud's posturing, where he stands in the shadow of *Breuer's principle*. There he faced with a fateful choice between two problematic options, so that he could credibly craft his story in the image of Oedipus, fated to deny life, or betray its integrity.

On the one hand, he could move with the tide leading into behaviourism with the assumption that consciousness is an epiphenomenon, a wraith of no real substance, and in fact he never ventured any conjecture on where or how it might be generated. On the other hand, he could assume that even under the impress of experience, the psyche responds not to the situation in reality as it might appear in the light of memory, but according to its own intrinsic law, as by a logic of attractions and repulsions. Such is the underestimated logic of Freud's analysis of character, which is *not* a matter of organic drives seeking release, rather a play of fusions and defusions within the psyche itself.

Recovering in such ways the context and resonances of Freud's descriptions one can begin to probe the tensions between description and explanation. Such is the virtue of phenomenology in research, and on this note we find Merleau-Ponty grasping the nettle of meaning which Freud left to fate and history, *for all constraints of the finite human frame and condition find their significance in relation to human purposes and values*. Yet it would be naive to think that Freud was oblivious to this, or to the apparent continuities between his patient population and Ribot's. Indeed, on this note we have Lawrence Miller (1991) recovering what he calls a *neuropsychodynamics* from Freud, a deeply ironic picture of patients taking what psychiatry and society make of their conditions as opportunity for evasion or manipulation, succumbing to what Freud called 'secondary gain'.

On this reading, Freud was always already a structuralist, so that there is no substance to the idea of a contest between him and Levi-Strauss for the meaning of the unconscious. Rather the impulse called repressed was, for whatever reason, found to be organically compromised or hazardous, and *inhibited* (Freud 1926). Taking this to be descriptively true, we can continue with the work of phenomenology, for there is more to be uncovered. Immediately, it is worth noting that Lévi-Strauss (1964) came to write off his own enterprise as nothing but a myth of the moderns (Derrida, 1970 ; Shalvey, n.d.: 133), so that

Freud's position in turn is unmasked as a figure of the *cynical realism* of the time, in which a diagnosis was a fact, and non-one gave a sucker an even break.

Pierre Janet

When Pierre Janet, another pupil of Charcot's, turned his attention to the 'absences' characteristic of hysteria, he was testing Ribot's analysis in the negative: if presence of mind (even as a jumble of misplaced meanings) is recognized as personality, then absence of mind must lay bare functions directly dependent on neural capacity. On this note Janet (1889) first studied *automatism*s, such as somnambulism and automatic writing, and his treatment was rigorous enough to substantiate the concept of the *autonomic nervous system* operating beneath the level of the cortex. Janet (1894) then turned to states of *dissociation*, emphasising the *dédoublement* or uncoupling of central and autonomic functioning. The synthesis lost in this way he placed as a function of personality.

On this note Janet (1903) introduced the diagnosis of *psychasthenia*, covering phobias, compulsions and obsessions, accompanied by doubts, timidity and depressions, all in contrast to neurasthenia. Neglected through all the subsequent debates is the fact that Janet brought together two distinct spectra of symptoms under one personality syndrome. In the psychasthenic personality, Janet (1894, 1903) emphasised the narrowing of the field of personal consciousness, leaving ideas in a subconscious (!) state free to mobilize the autonomic system and produce symptoms. By way of explanation he spoke of a *psychical insufficiency*, whence the psychiatric notion of *inadequate personality*. This weakness he in turn attributed to a deficit in the mental potential, exacerbated with the passing generations.

In this way Janet captured the whole psychiatric experience of his time, from symptoms to family histories to the outcome. Importantly, his focus was on the dysfunctional *family* rather than the individual, and he typically intervened by removing the patient to a hospital, and acknowledged that diet and exercise could help to restore strength. Such a procedure was inevitably expensive, which restricted its applicability. It remains to ask what sense one can make of Janet's rather cryptic account of the psychasthenic personality, and here one can usefully turn to Joseph Breuer's contemporary commentary, for all the paradox inherited by Freud.

Breuer and Janet: phenomena

Since Breuer was promoting a competing program with Freud, he does not respond to Janet directly, or give him sufficient credit, but his pertinent remarks are certainly illuminating, not least the distinction between sthenic and asthenic affects, noted at the outset. On the theme of a narrowing of the field of consciousness, Breuer (1893: 277) observed, with respect to asthenic affects: "All powerful affects [of this kind] restrict association – the train of ideas.

People become 'senseless' with anger or fright." There is a suggestion, then, of traumatic shock, and this was the explanation Freud initially pursued.

For Janet, in contrast, the strength of affect must be judged in relation to the strength of the character experiencing it, so that the affect emerges as an *effect*, much as we speak of the 'impact' of experience. Here Breuer suggested a middle way, emphasising particular *states of mind* in which affects are intensified and associations are restricted, states termed *hypnoid*, including "the semi-hypnotic twilight state of day-dreaming, auto-hypnosis, etc." Breuer and Freud (1893: 63, 61). This is a subtly different interpretation of Janet's views, with the *dédoublement* now arising between the ego and reality, even as it is drawn into complicity with the autonomic process, so that the hypnoid state involved serves in place of Janet's psychical insufficiency.

Breuer's intervention here has been little considered, overshadowed by the more substantial reputations of Janet and Freud. It remains the fact, however, that under extreme conditions, voluntary behaviour may be suspended in coma, orientation impaired in delirium, and the field of attention is regularly narrowed in exhaustion. How such states can be understood then depends on what one admits sustaining continuity through them. In Breuer's day there was little more in view than basal metabolism, but the situation is now considerably changed. Under Freud's influence, Breuer's concept passed from use, but then reappears in the context of organic impairment as the *oneiroid state*, principally characterised simply by "loss of the selectivity of mental processes," (Luria, 1973: 63; citing Luria et al, 1967).

Speaking of patients with lesions to the limbic systems Luria (1973: 61) remarked that: "The cardinal features of all patients of this group are a definite lowering of tone, a tendency towards an akinetic state, and a tendency to become fatigued rapidly " and again: "Sometimes this state is accompanied by marked *asthenia* of movements, leading to manifestations of akinesia which may closely resemble stupor," (Luria, 1973: 61, citing Bragina, 1966; emphasis added). When Breuer was still speaking in these terms, the diagnosis of hysteria extended to states distinguished as 'hysterio-epilepsy', hence with some organic impairment, and from this side, the pattern was recovered and substantiated by later neurologists.

Yet to be considered, however, are states which disrupt organic functioning, and yet may be transient, for example the delirium that may attend a severe fever, not uncommon in childhood diseases; migraines, headaches due to toxicity, and states of metabolic exhaustion as arise in diabetes, but also due to poor nutrition or toxins, which may in time induce diabetes. Allowing that such symptoms can be compounded by problems in circulation, inflammation and lingering infections, which may interact in varying ways, one recovers just the kind of complex and shifting symptom-pattern which notoriously characterizes the 'somatiform' or 'conversion' hysteria.

In this vein, Janet (1909) responded to Breuer's work by recognizing the class of *conversion hysterias*, so there is a definite sense that an expansion of

the schema is possible, but here Janet did *not* achieve the same distinctive combination of spectra and an integrative dynamic of personality. With conversion hysteria one must admit a difficulty due to how different personalities engage the social process. Evidently the patients concerned tend to be guarded, or prize their autonomy, and may well not reveal the symptoms unless specifically questioned. This was, I take it, the immediate spur to the development of defence analysis by Freud, and from this point the focus shifts from symptoms to the dynamics of character, a process we return to below.

One must also make a place for the state of mind which results as one passes an issue to another, by request or inquiry. A similar suspension of thought arises upon the realization that one is ignorant of something of critical importance for realizing a given prospect. *Thought may thus be suspended in an atmosphere of dependency or disappointment.* If Janet's psychasthenic personality is now covered by the DSM Avoidant Personality Disorder, this phenomenon is covered by the Dependent, with a significant overlap of traits, and a common vulnerability to depression, also included in Janet's description.

Although the mind may in some degree cast around for other possible resources or solutions, this comes at the cost of *a dissipation of attention and effort, reaching extremes in the manic flight of ideas and the incoherence of schizophrenic speech.* Sharing the phenomenology here are the Borderline and Narcissistic Personality Disorders, again with a significant overlap of traits and a common vulnerability to Brief Reactive Psychosis. Tellingly, the various figures of discontinuity in thought play out over the varieties of personality, posing the individual as a channel of thought, with intrinsic limitations, as if a finite expression of an infinite potential. *In broadest outline, a simple contrast emerges between two large clusters of phenomena, recognizably related to the contrast of sthenic and asthenic.*

Adolph Meyer and ergonomics

In the traditional sense an asthenic constitution is dominated by the respiratory and cerebral functions, with a concomitant weakness of the vegetative function. In the remote background here is the distinction between vegetative, animal and rational souls, one that Galen dismissed in *On Natural Faculties*, so that it was excluded from the Medieval approach to constitutional medicine through humours. The tradition is accordingly not well preserved, and in some accounts the vegetative function is replaced by the *sensitive*, so that there are actually four functions, which were retrieved from tradition by Jung (1921): sensing, (cerebral) thinking, (animal) feeling and (vegetative) intuition. At the same time Jung emphasised the underlying contrast of sthenic and asthenic ideas as it manifests in the field of personality, speaking of *extroverted* and *introverted* types.

Less happy was the way Jung (1921) made common cause with Freud in defining sanity as reality-orientation, so that introversion or psychasthenia appears as the 'slippery slope' leading down to schizophrenia. Sanity in this sense

means Reason as defined in classical Greek philosophy, and relentlessly questioned by Derrida: if one takes the rational soul in this light then it cannot sensibly be used in an even-handed typology! At the time Jung merely echoed the impression created by Kraepelin in 1889 that the relentless progress of schizophrenia constitutes a more severe condition than the intermittent course of the manic-depressive psychosis. Here one must allow for the difficulty acknowledged above, that some symptoms are harder to retrieve than others, and again the hard, simple fact that it is not schizophrenia but melancholia which predicts suicidal behaviour.

In this context Freud could emerge as a 'champion' of suffering hysterics, and liberalizer of the professions, but the way his ideas were then interpreted by Karl Abraham (1924), requiring a linear ranking of disorders by severity, correlated with developmental stages, was simply inadequate to the diversity of the phenomena. Kraepelin's (1883) studies of the course of various disorders usefully placed mental disorder in the context of the life-cycle, but the one who grasped mental disorder simply as a disruption of the life-process was Adolph Meyer in the US. The legacy of Ribot, Janet and Morton Prince was then contested between Freud on the one hand, and Meyer and Hoch on the other, in a debate which was never resolved, so that psychiatry in the wake was (and still is) plagued by eclecticism (Murphy, 1929: 333-4).

Where Breuer (1895: 270) simply spoke of the 'work' of the brain, Freud (attempting to follow Fechner) went on to concentrate on the intensity of the source of stimulation, while Meyer developed the concept of *ergasia*, from *ergon*, meaning effort, hence *a marshalling of resources*. In a revealing moment after his break with Jung, Freud showed a mute recognition of the alternative point of view, allowing that the *drang* (pressure) of an instinct may be defined as "the amount of force *or the measure of the demand for work* which it represents," Freud (1915: 118; emphasis added). The analysis in terms of force informs the Freudian 'drive' theory, but it is the latter perspective that rises to a *functional logic*, and offers the greater continuity with the ideas of Breuer and Pavlov.

It is no longer Breuer who matters here, or even the tradition of Pavlov represented by A.R. Luria (1976: 44ff), but rather the contemporary sense that classical conditioning in the sense of Pavlov facilitates the *feed-forward* of resources for the complete range of organic activities (Domjan, Cusato & Villareal, 2000). Here we see that *the functional logic of action requires an element of abstraction* as uncovered by Merleau-Ponty, for feed-forward can only be directed to a *type* of activity, defined by its demands on the organism. Experience with these demands, which leave their imprint on the subsequent state of the organism, then constitutes knowledge as Merleau-Ponty found in forming the *gestalt*, whereby the *gestalt* of self, carrying a specific sense of capacity and limitations.

Just this sense of the gestalt is now attested in neurology by evidence that a monkey grasping something in a certain way, or attending to an experimenter

using the same kind of grasp, will evoke a response in the same area of the brain; the homologous region in humans is known as Broca's area (Rizzolatti & Arbib, 1998). Similar mirroring is evoked in humans by verbal accounts (Tettamanti, 2005), consistent with the evolution from gesture to speech (MacNielage, 1986). Here there opens up the unexpected possibility that the brain may not constitute consciousness at all, but merely *refract* it through expectation, memory, and the symmetries and asymmetries of the interpersonal world.

The landmark study of aphasia by linguist Roman Jakobson (1956) placed in this context the function of *substitution*, which gives just perceived gestalt as exemplar of an abstract type. Moreover, this function allows retrieval from a cue embedded or implicit in a context, like a pronoun (Grodzinsky, 2000), so that this line of explanation extends to what is called implicit or procedural memory (Wolf et al, 2000). Mann (n.d.) then takes the theme back to Janet and dissociation. Following the decisive lead from Jakobson's (1956) study, now confirmed in wide-ranging cross-cultural studies (Grodzinsky, 2000), everything we have not associated with Broca's area, expressive behaviour and performance, can reasonably be related to Wernicke's area, Jakobson's other function of *concatenation*, and thereby recognition (as of words) and association.

Just as we speak of concatenation of things, events or even circumstances, so this function serves to contextualize, and thereby extract semantic types of words that will inform the resolution of implicit and grammatical dependencies through the function of substitution. At the time of Jakobson's work, only Merleau-Ponty and Vygotsky (1962)(Luria, 1973: 29ff) were prepared to admit that the brain palpably functions in this way in an existential context. Meyer's system of *ergasias* covered the complete range of mental impairments, from mental retardation through organic conditions to the functional disorders, and his holistic perspective is accordingly lost from view under the specialized system of diagnoses currently in use. With interpretation through *gestalt* phenomenology firmly established, we can now take the ideas of Breuer and Pavlov to the phenomena, asking simply after the contrasts they highlight.

Functional analysis

The low muscle tone and sensitivity of dissociative states stands in marked contrast to the muscular tension and guarded attitude associated with conversion hysterias. Marking the drift into personality theory and psychological discourse are then the descriptions 'tender-minded' and 'tough-minded': in such ways hysteria came to be seen as an attitudinal or characterological problem. This is a different way of viewing the field, and it motivates different groupings, bringing together the 'hardened' conversion hysteric and the cerebral phobic.

ATTITUDE (Tone)

	<u>Slack</u>	<u>Taught</u>
<u>Labile</u>	Dissociation (Schizoid)	Conversion (Manic)
PROCESS (Phase)		
<u>Fixated</u>	Dysthymia (Depressive)	Phobia (Paranoid)

Table: Process and Attitude dimensions of mental state

At much the same time William James' interest in the stream of consciousness motivated renewed attention to ideas, contrasting on the one hand the flight of ideas in mania, the distractions, absences and fugues of dissociation; and on the other, persistent obsessions, compulsive thinking, and the stable, elaborated delusions of paranoia. The emergent pattern is readily lost to the influence of theoretical programs like Abraham's, and again to the divergence between the older language of the mental state exam and the psychoanalytic discourse of character and psychosis. Nevertheless, setting aside for once notions of mental hierarchy in favour simply of the diversity of the phenomena, a clear pattern can be resolved, depicting what are now understood to be *spectra* of disorder.

Beneath the vocabulary of character the tonic and phasic aspects of activation can be readily discerned. Dissociative states extend to somnambulism, and dysthymia to insomnia, so the pattern borders on this side on the state of sleep, in sharp contrast to manic restlessness and paranoid watchfulness. On the other hand, the contrast between flight of ideas and fixed ideas is proper to ideation, the phasic aspect. Unexpectedly, *the aspects originally conceived in hierarchical terms appear here as independent dimensions*, evidence of the plasticity of mind, its function as an adaptive organ. *The lesson here is much the same as that learned in the case of posture and gesture.*

The pattern has not been recognized to date, for the accounts of personality in Janet and Kraepelin highlight continuities (psychasthenia and the manic-depressive psychosis, respectively) which seem to contradict its logic. Picking up the threads where Freud (1926) left off, Melanie Klein (1935) initially contrasted paranoid and depressive anxieties, but as her clinical experience grew, she formulated a concept of *positions*, a rather existential concept which can be unpacked as a *mode of relatedness* (O'Dowd, 1987). Klein (1946) later came under the influence of Fairbairn (1940, 1941), again thematizing personality, and came to speak of a *paranoid-schizoid* position, posing the counterpoint to Kraepelin's manic-depressive pattern.

It is *not* the case that character reduces to neurological process: rather it seems to *emerge* as a higher-order integrative process, much as conceived by Ribot. Asking *what* exactly emerges, Klein's analysis shows clearly enough the

contrast of *harm-avoidance* and *reward-dependence*, showing conditioning or habituation not as brute 'stimulus control,' but subject to individual differences and developmental histories. Learning in this classical sense serves survival or adaptation, integrating the organism in its environment, so we have here the essence of the situated phenomenon. It remains to ask whether one can further resolve a sense of *integrative functions* more apt to the *gestalt* of self or subject, which would yield a more substantial sense of knowledge in these matters. This caution may well surprise, but I must emphasise that we have not here considered psychopathy as a form of psychopathology, so that *all the data admitted is subject to the possibility of deception, just as the contingencies of learning may, though wider contingencies, be manipulated or used manipulatively.*

Integrative functions

In the case of psychasthenia, we have already found good reason to respect Breuer's way of relating the pattern to hypnoid phenomena. One can take this a step further, and hypothesise a *hypnagogic function* which serves to provide *continuity of identity and thought between states of consciousness*. This term refers directly to the 'twilight' states of falling asleep and waking up, but for a fuller sense of its *function*, one must integrate various other evidence. Waking specifically has been attributed to an 'orienting reflex', arising in the reticular activating system in the brain stem and serving to raise the level of both muscle and cortical tone (Luria, 1976: 54-6, 90). This usefully extends the account through the language developed by Breuer and Pavlov, to subsequent work in the Russian school of Lev Vygotsky (1934) and A.R. Luria (1973).

Noticing that the hypnagogic function is situated with the regulators of involuntary rhythms (Mitchell & Mayor, 1983: 48), one can generalize the result: *the hypnagogic function can be taken to be a rhythm modulator*. A direct sense of how this works can be obtained in the case of speech, where changes of pace are negotiated without much effect on the rhythm of stressed and unstressed syllables integral to verbal expression (Kozhevnikov and Chistovich, 1965), and the modulation paradigm (Redican, 1975; MacNielage, 1986; Levelt, 1989, ch. 8) offers useful insight into phonetic patterns (MacNielage, 1991).

It remains here to ask if there is a comparable integrative function which is impaired in the manic-depressive psychosis, and the Borderline syndrome which echoes it in the field of personality disorder. Notoriously, patients suffering the circular disorder demonstrate moments of singularly poor judgement, the unrealistic aspirations of the manic and the suicidal tendencies of the melancholic. Most evident is simply the inconsistency of mood and outlook. The patient described as Borderline is typically accident-prone, in an attenuated version of the same pattern.

Clearly there is an impairment in the sphere of action, consistent with Breuer's distinction, but one cannot analyse it in the same way as a matter of continuity, for *the logic of action continually disposes of its context through*

its effects on that context. One is notably surprised when an action *fails* to attain the desired effect, and such outcomes stand out as 'bungles', Freud's (1901) *parapraxes*. Hence one should think here rather of the converse, a *continual adjustment of the frame of action to changing circumstances*. It is evident enough that the pervasive, lingering moods of the manic-depressive condition render this difficult, while effects are all too manifest in failures of judgement.

It is reasonable, then, to hypothesize a function serving the attunement of action to circumstance. Such a capacity is variously attributed to experience, tact, grace, good sense, or, in cases of emergency, to a guardian spirit or angel; in this vein William James spoke of a *subliminal self*. Where the hypnagogic function modulates rhythm, the *subliminal function* must manage the process of contextualization. In respect of physical danger, the notion of an instinctual self-protection harks back to the *wa'hm* of Arabic tradition, variously interpreted by Rhazes (Arberry, 1950), Avicenna (Rahman, 1959) and Averoes (Nogales, 1987), rendered in Latin as *estimatio*, and English as *estimation* (Black, 1993). Interestingly, *intentio* enters our philosophical vocabulary from the Arabic *ma'ân*, which is what is perceived in the object by *wa'hm* (*estimatio*).

What I assume here is not a metaphysics of 'intentionality' as in Brentano (1874), but *the intelligibility of intentions, taken as a precondition for communication*, and thereby of a cohesive family or system. This is closer to Lacan's (193/40) view of human existence rendered intelligible in the mirror of others' behaviours, subject to the symbolic order of the culture concerned (Lacan, 1953). For a contemporary view, consider these musings by Gabriel R. Ricci, inspired by Goethe's *Faust*:

From within the inner temporal complexity of consciousness reality is continuously being transformed and any linguistic standard that purports to represent actuality must also possess transformative powers. Poetry, I would add, reconciles the logical fracture between language and world (of experience), when from its source in feeling and the figurative, it always takes on elements of the actual which is situated in the province of the material (Ricci, 2007: 160).

However one chooses to analyse such matters, there is an irreducible element that tradition had as *place*, Klein as position, and Lacan (1955-6) referred to topology.

Admitting in this spirit the idea of *situated meaning* or *semantic space*, founded in postures and positions of gesture, voice, and affect, these formulations combine in a view of *psychical space-time*: the time of the circadian rhythm and its modulations, bearing on capacities for action, textured by places of meaning. This is *not* recognizably the subjectivity of modern philosophy, but rather a conception that harks back to traditional rhetoric and art of memory through the notions of *occasions* of address and *loci* of memory. Interestingly, this takes us back to Ribot's foundation in memory, and thereby to Bergson, opening now on an important line of research in psychoanalytic psy-

chotherapy, which importantly extends to questions of continuity and contextualization.

Much as Klein's theorizing fractures over the concept of libidinal positions or modes of relatedness, psychoanalysis now appears irrevocably polarized between approaches focussed on continuity of memory and mental state on the one hand (Thomä & Cheshire, 1991; Epstein & Bottoms, 2002), and the integrity of self and performance on the other (Clyman, 1991; Talvitie & Ihanus, 2002). Importantly, memory now seems ambiguous between its declarative and associative or implicit potentials (Davis, 2001; Talvitie & Ihanus, 2002), so that memory no longer appears as an integral 'store' or repository, but rather a pervasive dimension of mental life.

Clinical strategies

Through the nineteenth century, neurology and psychiatry developed under the hegemony of pathological anatomy, the program dedicated to localizing diseases in impaired organs. Charcot remained dedicated to this approach, but Freud (1893) registered his dissent, on the grounds that hysterical paralyses do *not* reflect the organization of the nervous system, and hence attest a *psychical* organization. Yet when it came to the question of hallucinations Freud (1900) admitted the relevance of neural organization, and speculation on a 'regression' of motor impulses to the perceptual apparatus. *It was, importantly, on this basis that Freud ventured to distinguish the hysterical and obsessional neuroses from the psychoses*, so validating his psychotherapeutic focus on the former.

Yet he later admitted a continuity between neurotic aversion for reality and psychotic disavowal (Freud, 1924a,b), and his earlier distinction has *not* been maintained in recent editions of the APA Diagnostic and Statistical Manual. Through all this Freud grasped the organization of the nervous system in terms of the sensory-motor or stimulus-response architecture, and reason in the classical sense, taking verbal thought as its vehicle. This model C.S. Peirce rejected as inadequate to psychological understanding, ironically citing something like the 'unconscious inference' of Helmholtz (Hayek, 1968: 312&n7, citing Peirce 1931-5, I: 38), which he later clarified as 'background knowledge' supporting judgements of what is improbable (Popper, 1963: 240, citing Peirce 1931-5, V: 182, 206). This is very much what Merleau-Ponty (1942, 1945) admitted to his understanding of the *gestalt*.

Popper (1959) tried in vain to establish a logic of probability applicable to scientific inference, and Peirce's concerns are now referred to what is called 'fuzzy logic,' an outgrowth of modal logic, which properly yields measures of *vagueness* (of images) and *ambiguity* (of evidence) (Klir & Folger, 1988). These betray noise or dissonance in sources of information, ideally minimized and controlled *prior to* any rigorous experimentation, and critically, in the process itself. In other words, there is evidence here for a *filtering process* by

which an organism can judge what can be safely and fruitfully tackled in the active way that leads to learning about causal contingencies.

Grasping this, a new perspective emerges on what exactly is wrong in mental disorder, which a long-standing philosophical prejudice has simply as failure of reason. Here we find evidence that *learning is suspended or postponed as the psyche struggles for a requisite clarity*, with the important implication that persistent problems in this vein must be exacerbated by *learned helplessness*. In this perspective new aetiological factors suggest themselves: on the one hand, *metabolic chaos*, perhaps due to toxicity or inadequate nutrition, and on the other side, *chaotic environments*, as are notorious where psychopathy is involved and the family or system appears as the patient. Strongly confirmed in this way is the clinical impression of Rosenfeld (1965), after Klein, that schizophrenia is centrally characterized by *confusion*.

As Adolph Mayer never cased to emphasise, mental disorder is characterised by unfortunate circumstances, a conception here extended to the internal, metabolic environment. In the rounded view of the phenomena, duly informed by Jakobson, Vygotsky, and Merleau-Ponty, the brain is no 'bedrock' to which phenomena can be reduced, but rather an *interface* between the microscopic world of metabolism and now quantum energies, and the macroscopic, social, historical and ecological environment. Consistently, we have seen in recent decades the emergence of psychoanalytically-derived supportive therapies (Kernberg, 1999), building on the insights into implicit meaning and memory (Stern et. al, 1998; Clyman, 1991); and at the same time, the growth of detoxification and rehabilitation therapies, offering fresh approaches to the vexed questions of trauma and shock.

Philosophical conclusion

While the evidence as assembled here does in this way offer telling insight into the current direction of therapeutics, the alertly critical reader may retort that the trail of fresh research results runs dry in the 1990s, with little of contemporary interest a decade later. This is not quite true, since the revaluation of Merleau-Ponty (Matthews, 2004) is ongoing, and we are still learning about the mirroring capacity of the brain (Tettamanti, 2005), and concerning rhythm-generators (Cramer, Ying and Keller, 2007). More than that, this precise profile of discovery points to the philosophical depth of the problem, where there is place for a further tribute to Merleau-Ponty, and a also to Lev Vygotsky, the historical link between Pavlov and Luria.

Vygotsky was a highly original thinker, whose work became known in the West primarily through Luria, who in comparison had a restricted interest in neurology, and was therefore a far from ideal vehicle. Nevertheless, in his influential review of the subject, *The Working Brain*, Luria (1973: 29ff) took from Vygotsky the leads for a telling reconsideration of the concepts of 'symptom', 'function' and 'localization', for a thoroughgoing revision of the process of interpreting evidence in neurology. Evidently on the basis of his early work on

child development and education (Vygotsky, 1934, 1935), Vygotsky (1960) dared to propose that there is a pattern of dependencies in the functioning of different parts of the brain, which changes dramatically in the course of development: *in childhood, the functioning of the cortex is dependent upon the regions below it, while in adulthood this dependency is reversed.*

With Luria one must then bear in mind that his data was very largely confined to adult populations, and one must remember to question whether he was always able to carry through to maximum effect the process of reinterpretation. Vygotsky's dynamic dependency principle has important bearing on the evidence adduced above. When speaking of the loss of selectivity in the oneiroid state, Luria (1973: 63) cites a study (Luria et al. 1967) of effects *associated* with lesions of the *frontal cortex*, in the context of a discussion placing selectivity in general as a function sustained by the midbrain. In other words, Luria regarded the oneiroid symptoms as a relapse to the pattern of childhood, the pattern of thought is set 'from below'.

Here this reinterpretation has the effect of bringing together the clinical picture of the oneiroid state, and other evidence which would otherwise seem remote, for the rhythmical dynamics of the brainstem are among the most elementary in the central nervous system. Consistent with Vygotsky's principle, their influence is evident in infants readily absorbed in a range of rhythmical activities (Thelen, 1981). Historically, the impact of the difficulty resolved here was not small: in the mainstream of German psychiatry, it led Meynert to conjecture 'regression' of motor impulses to the perceptual apparatus, and Freud then admitted this line of speculation in the theoretical Chapter VII of his *Interpretation of Dreams*.

With respect to what Vygotsky (1960) called the 'higher mental functions', which he associated closely with language, he spoke curiously of 'extracortical organization', "implying by this somewhat unusual term that all types of human conscious activity are always formed with the support of external auxiliary tools or aids," (Luria, 1973: 31). Note the Cartesian association of consciousness with a specifically human and adult mind, and the Soviet touch, which would have human history as a saga of labour, effected with the aid of tools. This assumption opens on a decidedly unsettled and controversial area of evolution, but to my mind the issue is often taken quite out of proportion, for *no mammal can survive without active protection and care by adults in infancy, so that all mammals experience worlds in which their existence literally encompasses others of their kind.*

This is a point of real philosophical weight, for it speaks to the ancient tradition granting a rational soul to all animals in range of domestication or training, as to images of such animals in Paradise, and shows unambiguously the fragility of empiricism in attempting to construct the world from the experience and point of view of an individual. Again in philosophical terms, Vygotsky's intuition serves as an important counter-weight to the influence of the 'language of thought' tradition, which otherwise looms awkwardly large in his

writing. For what the evidence is worth, the baboons we know as occasional users of specialized vocal calls are also occasional users of sticks and stones as tools, so we can only assume that the two capacities then developed in tandem.

What I want to emphasise here is something more immediate interest: *the two functions that Jakobson (1956) found attested by aphasias as the foundations of language serve also in tool-use*. In grasping a tool, we make a cognitive *substitution* of its form for the bare hand, and in applying it, a *concatenation* of tool and object. It seems to me that the language of thought conjecture is a fancy of book-learned intellectuals and ideologically motivated *literati* like Herder, who have no idea of the intelligence that is embodied in the hands in fine art and skilled crafts, or, therefore, of the culture bequeathed to Europe by the Renaissance. Nor can they appreciate the wordless intuitions of mathematicians and the physicists who apply them in understanding nature, or, therefore, the signs whereby one may read the Book of Nature.

What cannot be contested is that when subjects born to others who are dexterous and in some measure skilled, are born into existences informed by those skills. It is not therefore the case that intelligence informs consciousness only in the mind of the lone observer: rather intelligence is always encountered at first more impressively in the presence and activity of others. It follows, interestingly, that *development is a process of intelligence seeking out itself, though interpretation of others, reaching to a sense of one's talent and place in an intelligent community*. All this serves to further qualify the idea of 'mental functions' and their 'localization': allowing that human meanings are complex, and that humans embody significance to an impressive degree, reaching to signification, one may allow further that such significance is distributed in the human form as in any other, *but only as significance or signification*, not as dumb tokens or representations awaiting their interpretation by some ghost within the machine.

In the philosophical depth of the matter it is thus Merleau-Ponty rather than Vygotsky who impresses, but Vygotsky is challenging enough to prompt the final question: what is it in development understood after Vygotsky that transposes consciousness so that *where there was once dependency, another may come to depend?* The clue to this enigma of maturation and continuity was found by Merleau-Ponty, interestingly, in Hegel. I mean here Hegel read neither in the vein of traditional metaphysics, nor in a sanitized 'post-Kantian' view, rather as interpreted in the Paris of Merleau-Ponty's awakening to philosophy by Alexandre Kojève, not through the dialectic of the *History of Philosophy*, but rather the *Philosophy of History*.

In very much the spirit of Vygotsky on dependencies, Merleau-Ponty (1942: 161-162) writes: "In reality, we have already introduced consciousness, and what we have designated under the name of life was already consciousness of life. The concept is only the interior of nature, says Hegel," and conversely, as emerges later, "Nature is the exterior of the concept" (*ibid*: 210). It is in such terms that Ken Wilber now seeks to defend his transpersonal psychology,

without recognizing how it dates him. For Flynn (2004 §2) the continuity with Merleau-Ponty is to be found in what Hegel made of consciousness as it becomes conscious of itself, for then "it comes to see that it has no exterior." The love which once encompassed one as a cosmos, and fell upon one like the wind and the rain, but gracefully, more forgivingly, is *rediscovered in time as a realm in which one can participate*, in that transformation Vygotsky had as the reversal of dependencies.

Asking what marks this reversal, the enigma comes to rest on what the law has as *intention*: a conception of an act at once conscious, deliberate and envisaged, for which the subject must accordingly bear full legal responsibility. It follows directly that the process of transformation ranges over the complexity of social organization, from the age of consent to the age of majority. On this note, and now is the last analysis, touching the limit of what the evidence can bear, it is as well to admit that *continuity between Luria's oneiroid state and Breuer's hypnoid state is not established here. If such continuity exists, Ribot's patient population merges with Freud's and Freud's cynical realism reflects as the recourse of subjects wounded in the nastiest way imaginable. If not, then there is no particular reason for applying Breuer's principle either, and both cases collapse.*

Of course, if one does admit the toxins, whether secondary to tumours, incidental to wounding, endemic in the pollution, or irresponsibly ingested, one must admit that their effects both transform consciousness and set the tone for what are called state-specific memories. It then no longer matters whether the effects occur in one tissue, or more, or in no such way, for the toxin itself is acting in the ensemble we questionably call psychical, and the prior anatomical definition of this category is violated. The same, interestingly, applies to the *absence* of a critical nutrient. The larger surprise is that mere phenomenology can carry such powerful reasoning (Husserl, 1910-11), which establishes a continuity of a logical order, not through the sceptical suspension of belief in what we do perceive, as for Husserl, but in the shock to belief that registers with what is missed, not found, not attained.

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