Psychiatry in Dimensions

Ludger Hofmann-Engl

HCL – Shared Services Kraków

online pblication at: <u>www.chameleongroup.org.uk</u> (2016)

Abstract

Particularly over the last 5 decades, clinical psychology/psychiatry - or perhaps say abnormal psychology - has undergone significant changes (compare DSM I -V & ICD 1 - 10). In fact, these changes have increased rather than reduced the problems within psychiatry leading up to a scientific crisis. Now, in order to counteract this crisis of ill-defined, over-simplified and increasing number of categories, the author attempts to define dimensions in which to locate an individual's psychological state.

Here, this paper suggests to make use of the following 5 dimensions: A) Learning ability which refers to an individual's ability to obtain, process, retrieve and apply information (with high learning ability at the one end of the scale and learning difficulties at the other). B) Mental health which is concerned with the balance between an individual's resources and the demands placed upon this individual and the perceived balance (e.g. should demands outstrip resources the mental health of this individual will decrease possibly resulting in depression). C) Personality disorders which are the outcome of an individual's maladaptive behaviour (i.e. changes in environment do not motivate an individual to adapt to such changes). D) Brain anomalies whether this should be genetic, acquired through injury and disease or substance abuse (e.g. Korsakoff state). E) Neuro-dysfunction whether permanent (e.g. Creutzfeldt–Jakob disease), chronic (e.g. medical depression) or acute (e.g. intoxication).

It is the claim of this paper that an individual's psychological state can be mapped within these five dimensions and that this system is suitable to replace other systems such as the classification into classical psychoses and neuroses or the ever growing amount of categories within DSM or ICD.

1. Introduction

Following the example of Jablensky (2016) and Miller & Shazer (1991) the author too wishes to open this paper with the famous quote as taken from Wittgenstein's Philosophical Remarks (1975): *Klassifikationen, die Philosophen und Psychologen machen, [sind], wie wenn man Wolken nach ihrer Gestalt klasifizieren wollte (the classifications as made by philosophers and psychologists [are] as if one was to classify clouds according to shape. Translation: Hofmann-Engl).* Applying this metaphor, as Jablensky (2016) does, to the Kraepelin or neo-Kraeplin tradition (Robins & Guze, 1970) of classifying psychiatric states into distinct "diseases", including differential

diagnostic tools in analogy to the standard medical model, indicates that we operate within a classification system that cannot even penetrate the amorphous surface of the problem. While much of this classification system has been based on the optimism to eventually find the "causes" for these "symptoms" - either in genetic form or brain dysfunctionality - this optimism has, as observed by Aragona (2014) and Zachar & Jablensky (2014), not materialized and has been described by Aragona & Markowá (2015) as a "state of scientific crisis" within psychiatry.

If psychiatry is in a crisis indeed, we may wish to look at other existing approaches. For instance, we might wish to re-examine the works of Jaspers (1963) on psychopathology or the more recent hermeneutic constructs of the Cambridge school (Berrios, 2014). However, while Jaspers psychopathology recognizes the shortcomings of the Kraeplin tradition, he firstly, as observed by de Leon (2014), remains a marginal figure within the USA psychiatric tradition, and secondly, we might consider his attempts rather a form of patchwork to Kraeplin's and Wernicke's attempts instead of being fundamentally different. Similarly, while the hermeneutic constructs of the Cambridge school are surely interesting, this approach comes with such heavy theoretical preconstructs that its application and implementation becomes a questionable if not impossible undertaking.

Now, in order to tackle this issue, we will firstly differentiate between observable and not observable states, will then set up a framework for not observable psychological states, followed by an elementary summary of observable states and finally by an application of the overall framework to a number of thought experiments testing the scope and comprehensiveness of this approach.

2. Observable and not observable psychological states

Rather than following some theoretical construct, we suggest to depart form a more pragmatic point of view. Not quite dissimilar to DSM V, psychological or psychiatric states can be grouped into two largely definite classes. On the one hand, we have those psychological states which are the result of an observable medical condition and on the other hand we have those states without an observable medical condition. For instance, while it is generally believed that clinical depression is associated with reduced activity of neurotransmitters such as serotonin and norepinephrine or hormonal imbalances (e.g. cortisol), there is increasing evidence that brain anomalies (compare: Drevets, Price & Furey, 2008) can be correlated to mood disorders. At the same time, placing depression within a cognitive behavioral framework, relates such moods to involuntary "automatic thoughts" (Beck, 1967) and yet again we might simply see depression in the light of unfortunate circumstances an individual is facing. While this insight seems to be unhelpful at first, it allows for a simple diagnostic path (figure 1):



Figure 1: A patient with depression will be assessed via an appropriate inventory (e.g. the Major Depression Inventory, compare Bech et al., 2001), will undergo a medical examination and if the condition is observable, medical intervention can be provided and for a not observable condition therapeutic intervention.

Key to this illustration is not necessarily the schema on how to diagnose or treat depression, but the

fact that at the very beginning of the chain of events an inventory has been implemented. Perhaps important too is the branching into observable and not observable conditions which guaranties the independence from the current status of knowledge. This example may also serve as an indicator of how distant we are in reality from even such a simple model. This is, typically a patient with depression will arrive at a general practitioner's and without ever being evaluated via an instrument will either be prescribed some anti-depressants or be left untreated (compare Bakalar, 2016 & Boseley, 2016).

Returning to the issue at hand, we conclude that there are psychological states which are observable and these states can be classified via the standard medical model. Not observable psychological states will form the subject matter within the next section.

3. Not observable psychological states

Not observable psychological states have been divided into a large class of categories within DSM V and ICD 10. At the same time, we have been flooded with an ever increasing amount of inventories (compare Robison at al., 1991 & Beacon Health, 2015) that it would be a futile task to look at these categories and inventories in an attempt to reorganize and possibly reduce the amount down to the few "essential" categories or scales. A different approach is needed indeed. As a matter of fact, we will simply postulate at this stage that there are 3 dimensions of not observable psychological states and that these states can be considered as independent and comprehensive at least within a static model. Whether this is the case, will be tested at a later stage within this paper and will remain the subject to further investigations. These three dimensions are: Learning ability, mental health and personality disorder.

For the purpose of clarity, we will ignore interdependencies, aspects of dynamics and the complex relationship between observable and not observable psychological states. However, we will allude to these issues later on. For now, we will look more closely at the dimension "learning ability".

3.1 Learning Ability

Based on the works of information processing theorists such as Atkinson & Shiffrin (1968), Craik & Lockhart (1972) and Morris, & Franks (1977) the standard model of the learning pathway as used within the area of learning difficulties (compare: NICHCY, 2004 and Silver, 2001) can be represented within the following model (figure 2):



Figure 2: Here, **input** relates to the perceptive aspect and lower cognitive processing - whether auditory, visual or other, **integration** to higher level cognitive processing such as sequencing and abstraction, **memory** to short-term and long term memory as well as information morphing and **output** to information retrieval and response.

In case all four elements of this process are high functioning within an individual, we consider this individual to possess a high degree of learning ability while impairment or lower functioning of one or more elements will lead to a lesser degree of learning ability. This is, learning ability will be seen here as a dimension rather than a category with the LDDI (Hammill & Bryant, 1998) as a major inventory. In the description of each element, we will follow closely Silver (2001).

3.1.1 Input

Most importantly, physical impairment such as short-sightedness or partial deafness are not considered issues of the learning process but issues of medical nature. Rather than this, stimuli triggering off neurons to transmit spikes to our brain (perception) and their subsequent low level processing (cognition) is considered "input". Here, the closer the correlation between stimuli and perceived objects, the greater is the input quality. Examples of input errors are the misinterpretation of letters or numbers (e.g. a "9" being interpreted as a "6" or a "d" as a"b") or the misinterpretation of sounds (e.g. the inability to separate for- and background sounds or confusion over similar sounding words such as interpreting: "Can you give me the ball?" as "Can you give me the doll"). Other sensory input information such as tactile information low level processing, remains, according to Silver (2001), an area of future research.

Clearly, if input information is misinterpreted at this stage, will have a significant effect on the following other three stages even if those stages are fully functional.

3.1.2 Integration

Generally speaking, integration is the process whereby inputted information will be transformed into meaningful information. Here, particularly two aspects have been focused on within learning disability research and praxis, and these are: Sequencing and Abstraction.

Sequencing is perhaps best understood when referring to information theory, where a data stream needs to be segmented into data chunks and these data chunks need to be ordered correctly. The issue of sequencing becomes particularly obvious when we attempt to learn a foreign language or when we attempt to recall a complex story in the correct sequence of events. An example of error occurs when we miss-chunk the phrase "monkey swings" into "monkeys['] wings" or if the letters of d - o - g are miss-ordered into the word g - o - d.

Even if information input has been accomplished and the information has been chunked and sequenced, it remains by and large meaningless unless the information will be related to preexisting knowledge and placed into context. This process has been coined abstraction. Errors at this information processing stage are particularly common by patients effected by dementia (although this is often an observable psychiatric stage).

3.1.3 Memory

Memory as such is a complex issue that has been described using rather simplified models with the short term/long term memory model (Atkinson & Shiffrin, 1968) being perhaps the most commonly known ones. While issues relating to memory encompass retroactive and proactive interference, as well as various forms of amnesia, the primacy/recency effect and the division into procedural, semantic and episodic memory, the perhaps most perplexing question relates to memory loss (forgetting). Here, the two main approaches are the trace decay model (Brown, 1958 & Peterson & Peterson, 1959) and the displacement model (Miller, 1956). A more recent branch of investigation concerns memory distortions (e.g. Schacter, 2001 & Brainerd & Reyna, 2005).

Inventories such as the LDDI or the Wide Range Assessment of Memory and Learning (Sheslow, & Adams, 2009) appear to focus on the learning speed, the complexity of the information memorized and the accuracy of the stored information.

Within learning difficulties, issues relating to short term memory can be observed when an individual does not retain information after prolonged repetition (i.d. after perhaps 10 or more

repeats) or in relation to long term memory when an individual appears to have memorized information one day only to have it completely forgotten the next.

3.1.4 Output

An individual might have performed at a high level at all three earlier learning processing stages, but might not be able to generate any output. Generally speaking (Silver, 2011), a person either will have to generate some language or some motor skills output such as writing or pointing at an object. The idea that an "output", as an interpretable information, within the learning process could be observed via electroencephalography or computerized electroencephalography seems to be for now out of reach (compare: Collura, 1993). It goes without saying that MIR scanning and computer tomography offer there no alternatives. This means, that unless an individual is in control of some of her or his muscle tissue (s)he will not be able to provide any learning process output.

Output difficulties are generally classified into language and gross motor skill disabilities. Here, language disabilities have been classified into spontaneous and demand language disabilities. While an individual may produce a fluent and stringent language output when self-initiated, the very individual may "freeze" when asked a direct question. Clearly, gross motor skills disabilities are observable psychiatric statuses.

3.2 Mental Heath

Sigmund Freud has been reported of having had said: "[Mental] health is the ability to love and work" although this is an unconfirmed anecdotal note (compare: Freud Museum, 2016). While this metaphor has some romantic notion, the most significant challenge for it stems from looking at its antonym "mental illness", so that it seems advisable to abandon it and to switch to stress theory (Lazarus, 1966) for the purpose of this paper.

While much of Lazarus's theory (e.g. Lazarus, 1990, 1991 & 1993) has become increasingly theoretically underpinned resulting in an ever increasingly complex system, the basic assumptions are actually of axiomatic clarity: An individual with some expectancy will perform cognitive appraisal of her or his situation and will then implement some coping action. However, the best introduction to Lazarus's model can be found within Lazarus (1999):



Figure 3: In situation A) an individual's demands and resources are equal resulting in mental health balance, in situation B) the individual's demands outstrip the resources resulting in low mental health (stress) and in situation C) the individual's resources outstrip the demands resulting in low mental health (boredom). This figure has been drawn in close adaptation to Lazarus (1999).

Refraining from entering a heavily theory anchored debate, we might just draw attention to three aspects in reference to this mental health frame work.

Clearly, demands consist generally not just of one or two dimensions such as financial or physical demands but of a hierarchy of demands which, in a simple model, we might order according to Maslow's triangle (1943, 1954) with a typical representation given below:



Figure 4: A typical representation of the Maslow pyramid or triangle putting various needs (demands) into a hierarchy. Here, for instance, if we have demands (needs) for food or water and we have food and water at our disposal (resources), we will find ourselves in a balanced mental health state in respect to these basic needs.

Further, unlike learning ability and personality disorders, our mental health state seems to be a rather volatile and changeable element of our overall psychiatric sate. The depiction by Lazarus (1999) as shown in figure 2 of mental health as a seesaw captures this aspect graphically.

Finally, without going into detail, we are not only dealing here with the actual balance between demands and resources, but also with the perceived balance between demands and resources. While this might be an issue of least significance in the area of basic needs, it will become increasingly significant when we move up in Maslow's pyramid (for instance whether ones needs for prestige are fulfilled depends much subjective and intersubjective evaluation).

Two major inventories are the MHI (Veit & Ware, 1983) and the MOS (compare Stewart, Sherbourne, Heys et al., 1992).

3.3 Personality Disorder

Following Kraeplin's approach, after having had taken part in a number of research seminars with him, Gannushkin (1933) published a classification system with a great many similarities to the personality disorder classification system within DSM I to DSM V, although personality disorders

are coined here psychopathies (психопатий). Striking and perhaps most significant is the similarity between Gannushkin's work and the DSM in as both firmly embed personality disorder within the concept of maladaptive behavior.

Interestingly, both systems make use of a clustering system. While Gannushkin (1933) employs nine clusters (e.g. the paranoid and schizoid cluster), the DSM V offers a division into cluster A, B and C and some specific personality disorders within these clusters. But what holds these clusters together? Is it causal relationships, the comorbidity of symptoms, theory, convenience or something else altogether? In order to answer this question, we will look at narcissistic personality as defined within DSM V closely (figure 5).

Narcissistic Personality Disorder

Diagnostic Criteria	301.81 (F60.81)
A populative pattern of grandicality (in fantany or hohovier)	pood for admiration and look

A pervasive pattern of grandiosity (in fantasy or behavior), need for admiration, and lack of empathy, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- 1. Has a grandiose sense of self-importance (e.g., exaggerates achievements and talents, expects to be recognized as superior without commensurate achievements).
- 2. Is preoccupied with fantasies of unlimited success, power, brilliance, beauty, or ideal love.
- 3. Believes that he or she is "special" and unique and can only be understood by, or should associate with, other special or high-status people (or institutions).
- 4. Requires excessive admiration.
- 5. Has a sense of entitlement (i.e., unreasonable expectations of especially favorable treatment or automatic compliance with his or her expectations).

670

Personality Disorders

- Is interpersonally exploitative (i.e., takes advantage of others to achieve his or her own ends).
- 7. Lacks empathy: is unwilling to recognize or identify with the feelings and needs of others.
- 8. Is often envious of others or believes that others are envious of him or her.
- 9. Shows arrogant, haughty behaviors or attitudes.

Figure 5: A copy as taken from the DSM V on the diagnostic criteria of narcissistic personality disorder.

In order to analyze this set of criteria, we might start with the word "arrogant". According to <u>www.thesaurus.com</u> "haughty" is a synonym to "arrogant", and hence criteria 9 can be reduced to just "arrogant". "Arrogant" is also mentioned as a synonym to "egotistic" and the latter one again to "inflated" and "boastful". This then covers criterion 1. Carrying on in this fashion, we will have covered all 9 criteria within a few steps of synonymy transformations. Basically, the DSM V tells us within 9 sentences that a narcissistic person is pretty unpleasant and obnoxious.

Even more interesting is the reversal of those criteria. We then get a person who is humble, mingles with common man, has great empathy, puts his or her personal interests second, does not know envy and so on. This then generates the profile of a "Christ like" person rendering a narcissist to be a representation of the Anti-Christ.

Finally, why the DSM V does not at least refer to one of the few successfully implemented scales such as the narcissistic hypersensitivity scale (compare: Wiehe, 2003) remains an unexplained riddle. Clearly, a different approach (as it was, as a matter of fact, within DSM IV and still in ICD 10) is needed, where the concept of maladaptation appears to central.

While maladaptive behavior is often associated with behavior such as echolalia, head banging or biting, we refer to maladaptation in the wider sense of behavior which, at a given situation, is counterproductive, and this in accordance with ICD 10 and to some extend with DSM IV. This means, such behavior has to be persistent, pervasive and problematic.

The ontology of personality disorders is generally traced back to some form of child abuse or neglect (compare: Motz et al., 2015), although overindulgence and excessive praise too have been identified as factors (compare: Ramsey, Watson, Biderman, & Reeves, 1996).

It is true, that Wiehe (2003) was able to observe a significant difference between abusive and noneabusive care givers along the narcissistic hypersensitivity scale, but this does not provide any insight in what other scales or inventories are needed in order to map out the characteristics of an individual's personality disorder. Here, we might feel inclined to follow the Five Factor Model (Goldberg, 1993) or the National Offender Management Model (Motz et al., 2015) as represented within the graph below (fig. 6):



Figure 6: The character dimensions as taken from "Working with offenders with personality disorder" (Motz et al., 2015)

A major inventory for measuring personality disorders is the Wisconscin Personality Disorders Inventory (Klein, Smith Benjamin, Rosenfeld, Treece, Husted & Greist, 1993).

4. Observable psychological states

The branches of medicine dealing directly with conditions of psychological or psychiatric relevance encompass endocrinology, geriatrics and neurology deliberately omitting psychiatry here following Martin's argument (2002). We might however consider elements of toxicology in the context of temporary neuro-dysfunction to be essential descriptors. This is not to say that, for instances, within oncology a great deal of psychological issues are at play, but generally speaking these issues

are not primarily triggered by the medical condition but are a secondary by-product which in theory at least can be addressed or even eliminated (e.g. by providing the adequate support network).

For the purpose of our goal, we dived observable psychological states into the group of brain anomalies and the group of neuro-dysfunction.

4.1 Brain Anomalies

Perhaps one of the first observed form of brain anomalies can be attributed to Alzheimer (1907) describing a condition which came to be known as Alzheimer's disease with neuronal loss, the formation of senile plagues and neurofibrillary tangles, which have more recently been found to be composed of the microtubular protein "tau" (Terry, 1999). Interesting here is, that Alzheimer did not simply describe the anomaly and atrophy of the cerebral cortex, but also the behavior of the patient before being submitted to the Irrenanstallt Frankfurt (asylum for the insane) and then being an inpatient of this asylum leading up to her death, where he reports:

Im weiteren Verlaufe treten die als Herdsymptome zu deutenden Erscheinungen bald stärker, bald schwächer hervor. Immer sind sie nur leicht. Dagagen macht die allgemeine Verblödung Fortschritte. Nach 4 1/2 jähriger Krankheitsdauer tritt der Tod ein. Die Kranke war schliesslich völlig stumpf, mit angezogenen Beinen zu Bett gelegen, hatte unter sich gehen lassen und trotz aller Pflege Decubitus bekommen

The appearances of what seems to be focal symptoms are at times stronger and at other times less pronounced as the condition progresses. They are always mild. In contrast to this, the general stupefaction is advancing. After about 4 ½ years of illness death occurs. At the end the patient was entirely obtuse, with her legs drawn up to her chest lying in bed, where she just used to let go and despite our care had developed decubitus (alcer). (Translation: Hofmann-Engl)

Alzheimer further describes how the condition of this woman started with jealousy followed by memory gaps and the displacement of items up to the inability to communicate.

Other forms or brain anomalies include brain injuries as, for instance, observed by Mitchell (1872) as a result of war, the Korsakoff syndrome after prolonged alcohol abuse, personality change due to tumors and the Huntington's and Parkinson's disease.

5.2 Neuro-dysfunctions

Generally speaking, we can classify neuro-dysfunctions into conditions without primary psychiatric and with psychiatric relevance whereby our interest here will be focused on the latter. Then again, we can group these neuro-dysfunctions into acute, chronic and permanent dysfunction.

5.2.1 Acute neuro-dysfunctions

A commonly widespread and fairly well understood state of acute neuro-dysfunction is alcohol induced intoxication. While it was believed until more recently (compare Vengeliene, Bilbao, Molander & Spanagel, 2008) that alcohol induced intoxication was affecting the neurotransmission in a non-specific manner and in particular working as a neuro-blocker, it has been shown that alcohol acts as a primary neuro-blocker (e.g. N-Methyl-D-aspartic acid) as well as a neuro-transmitter (e.g. gamma-aminobutyric acid) on a few neuro-systems (compare: Valenzuela, 1997)

affecting other neuro-systems subsequently. The psychiatric state of alcohol induced intoxication depends on the alcohol level as found in the blood stream of an intoxicated individual ranging from temporary euphoria or depression to an impaired or temporary disabled learning ability along all four leaning process stages.

Generally speaking, within toxicology substances which can trigger off acute neuro-dysfunctions are classified into toxidromes with the most common ones as: 1) Anticholinergics (e.g. causing hypervigilance) 2) Cholinergics (e.g. causing confusion) 3) Hallucinogens (e.g. causing hallucinations) 4) Opioids (e.g. causing euphoria) 5) Sedatives (e.g. causing depression) 6) Serotonin Syndrome (e.g. causing agitation) and 7) Sympathomimetics (e.g. causing hyperalertness). These altered mental statuses can be the result of intoxication or withdrawal. Testing of acute neuro-dysfunctions include urine, saliva, perspiration or blood sampling as well as breathalyzing.

5.2.2 Chronic neuro-dysfunctions

Chronic neuro-dysfunction may be caused by persisting external factors (such as stress), prolonged substance misuse (where tolerance occurs), by unknown causes and hormonal imbalances such as medical depression or postpartum OCD. Research in the area of hormonal causation remains, according to Altemus (2010), an under-researched area.

There has been a longstanding awareness of psychosomatic symptoms apparently caused by stress including migraine, vision impairment, digestive system irregularities to name the most common ones, however, these symptoms are per se not of psychiatric or psychological relevance. At the same time, while a link between stress and the release of dopamine had been observed previously only within animals, Pruessner, Champagne, Meaney & Dagher (2004) were able to replicate this effect within humans which implies that chronic stress may cause agitation, hyperactivity and insomnia.

It is well documented that substance misuse can lead to pharmacodynamic tolerance either in form of desensitization of the synaptic receptors either towards an agonist or antagonist agent as well as more complex interactive processes (compare: Klaassen, 2013). This status can clearly be labeled as chronic neuro-dysfunctional.

Epilepsy on the other hand appears more problematic in this context, where it could be argued that we are dealing with acute neuro-dysfunction rather than chronic. However, it would perhaps make sense to consider a single epileptic seizure without reoccurrence an acute neuro-dysfunction and the reoccurrence of epileptic seizures a chronic condition. While several factors associated with epilepsy have been identified, a broader understanding of the condition may be the matter of future research (compare: Shorvon, 2009)

Without entering the raging debate about clinical or major depression, we follow the line of argument that one major class of antidepressants are serotine based psychopharmaca while assuming that the hormone cortisol might be a trigger. If this was the case, we can consider such a condition a neuro-dysfunction on a hormone basis. The role of estrogen during postpartum OCD may be another example.

5.2.3 Permanent neuro-dysfunctions

While chronic neuro-dysfunctions can at least in theory be reversed, permanent neuro-dysfunction cannot. An example of such a condition is the Creutzfeldt–Jakob disease.

Within this context, the author wishes to present a hypothesis which, to his knowledge, has not been formulated previously and accordingly has not been tested nor investigated.

Referring to the concept of copying strategies (or mechanisms), we can assume that an individual will develop such strategies right from an embryonic stage onwards. Now, as external as well as internal requirements (needs and demands) are changing, we can safely assume that these coping strategies will have to be modified accordingly. In case, that changes in needs and demands are sudden, the individual will be likely to realize that a modification of the coping strategy will be necessary. In the best case scenario, the individual will then find and implement adaptive measures quickly, but what happens if the individual fails to do so perhaps simply due to acute trauma? This individual may carry on for some time employing the now atavistic coping strategy, but will sooner or later find that needs and resources are so much at odds, that modification of the coping strategy appears no longer an option leading up to a major cognitive dissonance which can only be resolved by "shutting-down". We will coin this process with the term "coping strategy disintegration".

We further hypothesize that coping strategy disintegration may result in psychiatric states including autism, schizophrenia and epilepsy. While autism and schizophrenia might not be classified as permanent neuro-dysfunction, reoccurring epilepsy can. As mentioned above, the construct of coping strategy disintegration is purely hypothetical at this point.

6. Thought Experiments

Here, we will test our framework by applying it to the historical character of Adolf Hitler and to two hypothetical proto-types with one within autistic spectrum disorder and the other one as being epileptic.

6.1 The historical character Adolf Hitler

The goal in this section is not to uncover any particular truth or new insight into Hitler, but to see if the historical character fits into this framework broadly. The reason for choosing Hitler is simply based on the assumption that there exists a widely shared general knowledge about this individual and the surrounding events, so that he can serve a simple point of reference.

6.1.1 Hitler's learning ability

We see no reason to assume that Hitler's input processing ability was defect. However, the integration of information can be considered to be highly dysfunct simply because information had to be filtered according to a great many heavily ideological constructs. We further can assume that, due to a high level of a constantly stressful information stream, memorized data were regularly subjected to interferences and morphisms. We also assume that output function was by and large operational. This implies that Hitler's learning ability was drastically compromised.

6.1.2 Hitler's mental health

The simple outcome of Hitler's governing period resulting in death, devastation and ruin indicates that resources and demands were not only not balanced, but the perception of this balance went from one extreme to another resulting in outbursts of euphoria to devastating depression leading up to his final suicide (coping strategy disintegration). This then implies that Hitler's mental health was very poor.

6.1.3 Hitler and personality disorders

It seems possible to fit Hitler easily into the category of narcissistic personality disorder including delusions of grandeur, lack of empathy, narcissistic hypersensitivity, need for admiration to name just a few obvious traits. We can safely assume that Hitler's behaviour was highly maladaptive.

6.1.4 Hitler and brain anomalies

The brain of the dead body of Adolf Hitler has not been recovered. Hence, we are unable to make any statement about brain anomalies.

6.1.5 Hitler and neuro-dysfunction

There appears good evidence, that Hitler became increasingly addicted to drugs such as previtin and eukadol. This would then imply that Hitler suffered from chronic neuro-dysfunction. This can partially explain some of his erratic behaviour.

6.2 Proto-Type Autistic Spectrum Disorder

Let us assume, an individual A has been diagnosed with autistic spectrum disorder. Until the age of 5 the general development had been normal, but over a short period of time A has stopped communicating, does not respond to social stimuli but masters a number of computer games at an advanced level. After extensive medical examination, no medical condition can be diagnosed.

Following our model as presented above, we would be reluctant to diagnose any form of learning disability, because we would be unable to explain the computer mastery. Following our model, we also can exclude neuro-dysfunction and brain anomalies not only due to the medical results but also because of As pervious normal history. Personality disorder too can be eliminated because this would have required the development of extensive maladaptations. The only dimension left according to our model then is to do with mental health. Referring here again to the concept of coping strategy disintegration, we would assume that some major environmental change caused the onset of autism. However, identifying this triggering change might be problematic to impossible, because triggers of coping strategy disintegration can also take effect after longer periods of time lapses. Considering that in the case of A we are not aware of any triggers, we might assume that the experience of being born might be the cause (drop in temperature, need to breath and eat etc.).

6.3 Proto-Type Epilepsy

Let us assume, an individual B has had epileptic seizures since the age of 11 (now age 13). Previously, B had been diagnosed with ADHD after B had found it difficult to follow the lessons at school. B has clear convictions about what is right and wrong, has a desire for social intimacy but is reluctant to initiate or accept such intimacy. A general practitioner had suggested that there might be an estrogen deficiency.

Applying our model to this case, we can exclude personality disorder. We also assume that brain anomalies are not at play because of the pervious history of B. Neuro-dysfunction is an issue that would have to be investigated as the onset of puberty may be a trigger for the epileptic seizures. However, the two main areas, which are of concern, comprise mental health and learning ability. Interestingly, in the case mental health and learning ability might be closely linked. For instance, ADHD might directly be the result of being unable to follow the intellectual demands at school, requiring an extensive analysis of potential learning ability dysfunctions. At the same time, the reduction of demands on B could ease the burden on Bs mental health. At the same time the self-perception of the mental health balance would have to be evaluated. Epileptic seizure might be the result of temporary coping strategy disintegration.

7. Conclusion

We set out to provide a framework of psychiatry or abnormal psychology with focus on 5 dimensions (e.g. learning ability) rather than individual labels. The advantage of this is not only the reduction of an increasingly large body of "psychiatric diseases" within DSM or ICD, but also that these dimensions are either measurable via inventories or can be clinically observed. This way a large corpus of "made-up" conditions can be replaced by a more a scientific approach. The three examples, within the thought experiment, were introduced just to demonstrate that this approach appears to have potential.

The weakness of this paper stems from the wish to outline this framework, rather than to investigate every single point of question in detail. Even if this approach might be helpful partially only, much would have been achieved.

References

Altemus, M. (2010). Hormone-specific psychiatric disorders: do they exist? Arch Womens Ment Health. 2010 Feb; 13(1): 25–26

Aragona, M. & Marková, I. S. (2015). *The hermeneutics of mental symptoms in the Cambridge School*. Revista Lationamerika De Psichopatologia Fundamental 18(4): 599 – 618

Aragona, M. (2014). *Epistemological reflections about the crisis of the DSM-5 and the revolutionary potential of the RDoC project*. Dialogues in Philosophy, Mental and Neuro Sciences, 7(1): 11-20

Alzheimer, A. (1907). *Über eine eigenartige Erkrankung der Hirnrinde*. Allgemeine Zeitschrift fur Psychiatrie und Psychisch-Gerichtliche Medizin, 64:146-148

Atkinson, R. C., & Shiffrin, R. M. (1968). *Human memory: A proposed system and its control processes*. Psychology of learning and motivation, 2, 89-195

Bakalar, N. (2016). *Depression Is Poorly Diagnosed and Often Goes Untreated*. In: New York Times, Sep.1.2016

Beacon Health Options (2015). *List of Psychological Tests*. Retrieved Dec.13.2016 from: <u>http://www.valueoptions.com/providers/Forms/Clinical/List of Psychological Tests.pdf</u>

Bech, P., Rasmussen, N-A., Olsen, LR., Noerholm, V. & Abildgaard, W. (2001). *The sensitivity and specificity of the Major Depression Inventory, using the Present State Examination as the index of diagnostic validity.* J Affect Disord 66: 159-164

Beck, A. T. (1967). *Depression: Causes and treatment*. Philadelphia: University of Pennsylvania Press.

Berrios, G.E. (2014). Per una nuova epistemologia della psichiatria. Roma: Fioriti Editore

Boseley, S. (2016). *Why have antidepressant prescriptions doubled in the last decade*? In: The Guardian, Jul.08.2016

Brainerd, C.J. & Reyna, V. F. (2005). *The science of false memory*. Oxford University Press, Oxford

Brown, J. (1958). *Some Tests of the Decay Theory of Immediate Memory*. Quarterly Journal of Experimental Psychology, 10, 12-21

Collura, T. F. (1993). *History and Evolution of Electroencephalographic Instruments and Techniques*. Journal of Clinical Neurophysiology 10(4): 476 - 504

Craik, F. I., & Lockhart, R. S. (1972). *Levels of processing: A framework for memory research*. Journal of verbal learning and verbal behavior, 11(6), 671-684

Drevets, W. C., Price, J. L & Furey, M. L. (2008). *Brain structural and functional abnormalities in mood disorders: implications for neurocircuitry models of depression*. Brain Structure & Function 213(1-2): 93–118

Freudmuseum. (2016). Zitate: Retrieved Dec. 20 2016 from: <u>http://www.freud-museum.at/de/sigmund-und-anna-freud/zitate.html</u>

Gannushkin, Р. В. (Ганнушкин П. Б.) (1931). *Клиника психопатий, их статика, динамика, систематика* (Clinical Aspects of Psychopathies, Symptomatics, Dynamics, Systematization). Moscow: Medgiz

Goldberg, L. R. (1993). "The structure of phenotypic personality traits". American Psychologist. 48: 26–34. <u>doi:10.1037/0003-066x.48.1.26. PMID 8427480</u>.

Hammill, D. D. & Bryant, B. R. (1998). Learning disabilities diagnostic inventory. Austin, TX: PRO-ED

Jablensky, A. (2016). Psychiatric classifications: validity and utility. World Psychiatry 15(1): 26 -31

Jaspers, K. 1963). *General psychopathology* (translated from the German 7thedition by Hoenig J and Hamilton MH), Manchaster (UK): Manchester University Press

Klaassen, C. D. (2013). *Casarett & Doull's Toxicology: The Basic Science of Poisons*. (8th ed.). McGraw-Hill Professional

Klein, M. H., Smith Benjamin, L., Rosenfeld, R., Treece, C., Husted, J. & Greist, J. H. (1993). The Wisconsin Personality Disorders Inventory: Development, Reliability and Validity. Journal of Personality Disorders 7(4). 285 - 303

De Leon, J. (2014). *DSM-5 and Research Domain Criteria: One Hundred Years after Jasper's General Psychopathology*. Psychiatry Faculty Publications. Paper 26, University of Kentucky

Lazarus, R S. (1966). Psychological Stress and the Coping Process. New York: McGraw-Hill

Lazarus, R S. (1990). *Theory-based stress measurement*. Psychological Inquiry, 1, pp. 3–13

Lazarus, R S. (1991). Emotion and Adaptation. New York: Oxford University Press

Lazarus, R S. (1993). *Coping theory and research: Past, present, and future*. Psychosomatic Medicine, 55, pp. 234–247

Lazarus, R. S. (1999). Stress and emotion: a new synthesis. London: Free Association

Martin, J. B. (2002). *The Integration of Neurology, Psychiatry, and Neuroscience in the 21st Century*. American Journal of Psychiatry, 159 (5): 695-704

Maslow, A. H. (1954). *Motivation and personality*. New York: Harper and Row

Maslow, A.H. (1943). A theory of human motivation. Psychological Review. 50 (4): 370–96

Miller, G. (1956). *The magical number seven, plus or minus two: Some limits on our capacity for processing information*. The psychological review, 63, 81-97

Miller, G. & de Shazer, S. (1991). Jenseits von Beschwerten: Ein Entwurf der Kurztherapie. In: Systemisches Denken und therapeutischer Prozeß (ed. Reiter & Ahlers), Berlin/Heidleberg: Springer Verlag

Mitchel, S. W. (1872). Injuries of Nerves and Their Consequences. Philadelphia: J.P. Lippencott

Morris, C. D., Bransford, J. D., & Franks, J. J. (1977). *Levels of processing versus transfer appropriate processing*. Journal of verbal learning and verbal behavior, 16(5), 519-533

Motz, A. et al. (2015). *Working with offenders with personality disorder*. (ed. Craissati, Joseph & Skett) National Offender Management System, UK

NICHCY (Dep. Of Education). (2004). *Reading and Learning Difficulties*. Briefing Paper FS 17 4th Ed. Retrieved Dec.14.16 from: http://www.ldaofky.org/Reading%20&%20Learning%20Disabilities.pdf

Peterson, L.R. & Peterson, M.J. (1959). *Short-term retention of individual verbal items*. Journal of Experimental Psychology, 58, 193-198

Pruessner, J. C., Champagne, f., Meaney, M. J. & Dagher A. (2004). Dopamine Release in Response to a Psychological Stress in Humans and Its Relationship to Early Life Maternal Care: A Positron Emission Tomography Study Using [¹¹C]Raclopride. Journal of Neuroscience, 24 (11) 2825-2831

Robins, E. & Guze, SB. (1970). *Establishment of diagnostic validity in psychiatric illness: Its application to schizophrenia*. Am J Psychiatry 126(7):983–7

Ramsey, A., Watson, P.J., Biderman, M.D. & Reeves, A.L. (1996). Self-reported Narcissism and Perceived Parental Permissiveness and Authoritarianism, *The Journal of Genetic Psychology*, Vol 157, No 2

Robinson, J. P at al. (1991). *Measures of Personality and Social Psychology* (ed. Robinson, Shaver & Wrightsman). London: Academic Press

Schacter, D. L. (2001) *The seven sins of memory: How the mind forgets and remembers*. Boston (Massachusetts): Houghton Mifflin

Sheslow, D. & Adams, W. (2009). *Wide Range Assessment of Memory and Learning (second edition) Interpretive and Scoring Software*. Psychological Assessment Resources, Lutz, FL

Shorvon, S. (2009). *Epilepsy*. Oxford Neurology Library

Silver, L. (2011). *What are Learning Difficulties*. Retrieved Dec.14.16 from: <u>http://www.ldonline.org/article/5821/</u>

Stewart, A. L., Sherbourne, C. N., Hays, R. D., et al. (1992). *Summary and Discussion of MOS measures*. In (ed. Stewart & Ware): Measuring functioning and well-being. The medical Outcomes Study Approach, Durham, NC: Duke University

Terry, R.D. (1999). Alzheimer Disease. Philadelphia: Lippincott Williams & Wilkins

Valenzuela, F. C. (1997). Alcohol and Neurotransmitter Interactions. Alcohol Health & Research World, vol 21.2, 144 -148

Veit, C., & Ware, J. (1983). *The structure of psychological distress and well-being in general populations*. Journal of Consulting and Clinical Psychology, 51, 730-742

Vengeliene, V., Bilbao, A., Molander, A. & Spanagel, R. (2008). *Neuropharmacology of alcohol addiction*. British Journal of Pharmacology. 154 (2): 299–315

Wiehe, V. R. (2003). *Empathy and narcissim in sample of child abuse perpetrators and a comparison sample of foster parents*. Child Abuse & Neglect, vol 27.5

Wittgenstein, L. (1975). Philosophical Remarks. Chicago, Uni. of Chicago Press

Zachar, P., Jablensky, A. (2014). *Introduction: The concept of validation in psychiatry and psychology*. In: Alternative perspectives on psychiatric validation. DSM, ICD, RDoC, and beyond (Zachar, P. et al. ed.) 3-24. Oxford: Oxford University Press