



BRILL

INTERNATIONAL JOURNAL OF
JUNGIAN STUDIES (2022) 1–20

IJS

brill.com/ijjs

An Analytical Psychology Conceptualisation of Psychosis in Modern Psychiatry

Jung's Vision and Perspective

Andrew John Howe | ORCID: 0000-0001-6688-6738

South London and Maudsley NHS Foundation Trust, London, UK;
Department of Psychoanalytic and Psychosocial Studies,
University of Essex, Colchester, UK

Corresponding author
andrewjhowe@doctors.net.uk

Arsime Demjaha | ORCID: 0000-0002-1870-6410

Department of Psychosis Studies, Institute of Psychiatry, Psychology
and Neuroscience, Kings College London, London, UK;
South London and Maudsley NHS Foundation Trust, London, UK
arsime.demjaha@slam.nhs.uk

Abstract

Analytic formulation and contribution to treatment of psychotic disorders have little application in modern psychiatry. The medical model, largely based on psychopharmacology and biological conceptualisation of illness, particularly dominates the treatment of psychosis. While many analysts have worked with patients in psychotic states, it is rare to find analytic approaches to psychosis within the national health service (NHS) in the UK. We feel this a detriment to a sometimes difficult to treat patient group. Jung spent his early working years devoted to patients with psychosis at the Burgholzli hospital in Zurich. Later on in his career, Jung had personal experience of psychotic symptoms, interacting with visions and voices within his own mind, that are noted in his posthumous Red Book. Jung is, therefore, arguably one of the most experienced analysts and depth psychologists in the realm of psychosis. In this paper we describe Jung's in-depth psychological approach to the genesis of psychosis. We then discuss parallels with our contemporary understanding of the aetiology of psychosis. Our aim is to highlight the importance of an analytical approach and thinking in a) understanding the aetiology and b) contribution to treatment of such a complex and intractable disorder as psychosis.

Keywords

Jung – psychosis – schizophrenia – analytical psychology

1 Introduction

Analytic formulation and contribution to treatment of psychotic disorders have little application in modern psychiatry. The medical model, largely based on psychopharmacology and biological conceptualisation of illness, particularly dominates the treatment of psychosis. Antipsychotics are effective in treating acute psychosis and preventing relapse in chronic cases, but they are not always a solution and yet seldom are these patients exposed to additional benefits of an analytic approach. Approximately one third of patients with schizophrenia are resistant to pharmacotherapy, and a substantial majority of such patients are resistant from illness onset (A. Demjaha et al., 2017). While many analysts have worked with patients in psychotic states, it is rare to find analytic approaches to psychosis within the national health service (NHS) in the UK. Historically significant attempts have been made however, with therapeutic community style treatment in the U.K (Lucas, 2009) and Perry's Diabasis projects in San Francisco (Perry, 1990). Contemporarily there has been a resurgence in interest in an analytical psychology approach to psychosis in Italy where a small study into potential benefits was undertaken (Marchese et al., 2021). Returning to the U.K. where we practice psychiatry, other therapeutic strategies are offered however, such as Cognitive Behavioural Therapy (CBT) for Psychosis, in line with NICE (The National Institute for Health and Care Excellence, 2014) guidelines, an analytic approach to understanding and treatment of psychosis is lacking. This could be due to a lack of empirical evidence of an analytical aetiology or treatment of psychosis which are quintessential to acceptance in modern psychiatric clinical setting.

In this article we primarily use the modern term 'psychosis' to denote a mental state marked by reality distortion (hallucinations and delusions) and impairment in thinking, speech and affect that in most cases has a remitting-relapsing course. Jung used interchangeably the terms 'Dementia Praecox', created by Krapelin and 'Schizophrenia' coined by Bleuler, in his definitions (Escamilla, 2016). The term Schizophrenia is more in line with contemporary psychiatry and ten varieties of the condition are noted in the international classification of diseases volume ten (World Health Organisation, 2019). In cases where we report on scientific research that has used formal classifications of schizophrenia, we will refer to it using that nomenclature.

2 Analytic Approaches to Psychosis

Eminent psychoanalysts such as Freud and Bion have attempted to provide psychoanalytic explanations of psychosis (Bion, 1958; Zanchettin, 2018). Zanchettin's review of Freud's work on the subject (2018) notes Freud considered psychosis as a disturbance of connection between the inner and external world and as a form of autoerotic regression. While Zanchettin sees Freud's thoughts on psychosis as relevant to the present day, he notes that there was little belief in the benefits of analytic therapy for the condition. This belief was based on difficulties in the transference relationship within psychosis. On reflection, Freud's real life exposure to psychosis was limited, with much written, for example, from the diary account of Schreber, a German judge who had a psychotic illness. In our view, this subdues Freud's impact on analytical understandings of psychosis. Bion noted hallucinations to be part of an 'unconscious attempt to be cured' and a creative phenomenon. He separated out 'hysterical hallucinations', which consisted of whole objects and were associated with depression, and 'psychotic hallucinations' which were made up of part objects. Both however were to be found in patients presenting in psychotic states.

In more recent times the psychoanalyst and psychiatrist Richard Lucas developed Bion's theories further (Lucas, 2009). His book, *The Psychotic Wavelength* gives a detailed account of psychoanalysis for psychosis and its implementation in the NHS clinical settings. A focus of his approach is turning in to the psychotic wavelength that patients present with. i.e. seeing the psychotic symptomatology as meaningful. Through a series of clinical examples, he shows how psychoanalytic theories can be used on a general psychiatric ward to understand patient difficulties. Lucas's work is arguably of the most practical psychoanalytic work for contemporary psychiatry as it situates itself within that environment.

3 Analytical Psychology and Psychosis

Carl Jung, founder of analytical psychology and at one-time protegee of Freud, was surprisingly left out of Lucas's work. In our view this omission is to the detriment of comprehensive psychological understanding of psychosis. Jung spent his early working years devoted to patients with psychosis at the Burgholzli hospital in Zurich under Eugene Bleuler in 1900. Bleuler was the first to coin the term schizophrenia, superseding Kraepelin's dementia praecox. This environment provided Jung the opportunity for numerous observations of the psychotic state of mind that led to his formulation of a theories and treatment

of psychosis that was largely based in unconscious processes. While Jung was working under Bleuler, he was able to write his key works on schizophrenia. This included *'The Psychology of Dementia Praecox'*, which was the culmination of three years of experimentation and observation at the Berghölzli (Escamilla, 2016). These early professional years would come to form the bedrock of Jung's analytical psychology after he broke away from Freud. Jung's unique concept of archetypes, for example, came from his observations of psychotic patients and the content of their hallucinations which demonstrated cultural knowledge they would not have otherwise learned (Jung, 1952, para. 151).

Later on in his career, Jung had personal experience of psychotic symptoms, interacting with visions and voices within his own mind, that are noted in his posthumous Red Book (Jung, 2009). Within its pages, we find a pictorial and poetic description of Jung's own quasi-psychotic experience. The book followed Jung's split from Bleuler and Freud, which was a psychologically difficult time. Whether it would qualify as a psychotic experience according to the medical definition today is unclear. Jung himself referred to it as his own internal process. He withdrew from many of his professional and teaching roles and focussed instead on internal images and visions. He would have dialogues with the characters he met, write and paint extensively about his experiences. Jung would refer to this time as the most important in his life, confirming his discoveries thus far and a cornerstone of his work. Jung was able to keep working professionally during this time and also be with his family. Therefore, he was not debilitated in his activities of daily living, as would be the case with most people experiencing psychosis. It seems Jung never described himself as having schizophrenia but felt that he was encountering the same experiences as those with the condition. This shows the power of creativity in what was presented by his psyche and how he worked through it facilitated by painting and writing. While the connection was never made by Jung, we think it reasonable to infer that this experience would help him better understand psychosis. Jung is, therefore, arguably one of the most experienced analysts in the field of psychosis.

His work was continued by some analytical psychologists such as John Weir Perry (1990) who set up multiple public health services devoted to treatment of psychosis from an analytical psychology standpoint in the U.S. In contrast to the psychoanalytic works described earlier, analytical psychologists have more exposure to and consideration of the psychotic experience as it presents in public health services and hospitals.

In this paper we describe analytical psychology's in-depth psychological approach to the genesis and conception of psychosis. Jung himself observed that his fifty years of experience 'does not indicate any clear-cut aetiology' of

psychosis (Jung, 1958/1982, para. 577). Indeed, Jung was ahead of his contemporaries, certain that we needed to move beyond the 'one cause' idea for psychological illness and look instead at multiple contributory psychological factors (Jung, 1919/1982, para. 480). We consider the topics of ego-strength, schizophrenia as a normal process of the psyche, the autonomous complex, Jung's toxin, the meaning of symptoms, psychosis as an orgic or non-organic condition and creativity and psychosis. We compare and discuss parallels with our contemporary understanding of psychosis. Our aim is to highlight the importance of an analytical approach to psychosis and show how there may be scientific evidence for some of the concepts presented.

4 Ego Strength and Early Development

Overall Jung saw the presentation of psychosis as a manifestation of unconscious content, one that 'pierces holes in the ceiling of consciousness' (Jung, 1907/1982, para. 256). Jung thought of the generation of psychosis in two stages. First there is the primary abaissement, a relaxation of concentration permitting more unconscious material to be present. Further progression to psychosis has to do with someone's ego not being able to withstand the strength of the unconscious content it is presented with (Jung, 1939/1982, para. 520). In the present day, the concept of ego strength has not been scientifically investigated; however, the ego has found a potential physical place within the brain, the Default Mode Network (DMN). Postulated as a location for the Freudian 'ego', the DMN is composed of the medial prefrontal cortex, posterior cingulate cortex and angular gyrus (Carhart-Harris & Friston, 2010). The DMN has been shown to be active when individuals are not focused on the external environment. Specifically, it is active when individuals are engaged in internally focused tasks including autobiographical memory retrieval, envisioning the future, and conceiving the perspectives of others (Buckner et al., 2008). A recent review of the DMN in Schizophrenia showed that compared to healthy controls, those with schizophrenia had functional hyperconnectivity within the DMN (Hu et al., 2017). This could suggest that people with schizophrenia may be more internally focussed. Jung described psychosis an introverted response (Jung, 1914b/1982, para. 418). The supposition that psychosis is related to premorbid introversion has support in recent literature (Berenbaum & Fujita, 1994), particularly in males (Schothorst et al., 2006). Genetic markers related to social introversion/isolation were even found to be increased in relatives of those with schizophrenia (Lien et al., 2009). In practice Jung noted a predisposition to internal focus in this work when he commented that even the patient

who becomes gravely ill can often bring themselves out of the psychosis for a time, if a greater external distraction or concern takes over (Jung, 1908/1982, para. 360). He went as far as to suggest that the chronic cases of catatonic patients have 'disappeared' because they have something to do (1939/1982, para. 539).

The preponderance of psychotic episodes to occur during adolescence or young adulthood could also be understood from the concept of a relatively weaker ego. At a time when ego development is still taking place, the inability of the ego to assimilate primitive psychic material erupting at that crucial time of change human development could lead to the psychotic episode. From a neuroanatomical standpoint, the natural process of synaptic pruning, where extra unneeded synapses in the brain are removed, is ongoing until the mid-twenties and has been suggested to be related to development of the sense of self (Sebastian et al., 2008). In schizophrenia this process is known to be excessive and is noted to be an important part of pathophysiology though it has not yet led to any treatment interventions (Germann et al., 2021). This could support Jung's assertion that a weaker ego can lead to a psychotic episode if excessive synaptic pruning affects the process of ego development.

While not discussed by Jung, early life experiences are seen as risk factor for developing psychosis later in life by multiple post Jungian authors: John Weir Perry describes mothers 'failing to render love' in his patients (Perry, 1990, p. 26). Schmidt (2012) introduced constitutional (i.e. biological) factors and developmental factors, such as difficult childhood experiences, that can lie dormant for years but lead to psychosis later in life. A personal crisis can then rupture the persona and powerful unconscious content can overwhelm the ego. Metman (1956) advises prevention of psychosis in the form of addressing childhood trauma and difficulties when they arise in the patient's early years. In the present day clear links have been shown between early life adversity and psychosis later in life (Sideli et al., 2020).

5 Schizophrenia as a Normal Process of the Psyche

A key factor of Jung's understanding of psychosis is that it is an extreme example of normal processes which take place within the psyche. At one point he states that psychosis dwells in all of us and it is an example of the psychic struggle in which we are all engaged (Jung, 1908/1982, para. 387). As an ideological standpoint, this does much to tackle the social stigma of psychosis, as it can be found in all of us. Jung further suggests that delusions and hallucinations may be part of normal behaviour and cites cultures and religions of which visions

and myths are key parts. Here these psychotic symptoms are not seen as pathological but the opposite, venerated and revered (Jung, 1914a/1982, para. 453).

Jung draws parallels between psychosis and another normal process: dreaming. The person experiencing psychosis is described by Jung as somewhere between a dreamer and a sleep walker (Jung, 1907/1982, para. 298). He concedes that this is not a novel idea and cites multiple sources within his literature review that have come to the same conclusion (Jung, 1907/1982, para. 22). Jung asserts that in dreams the conscious ego is weakened via relaxed concentration when sleeping which leads to unconscious material coming into consciousness (Jung, 1957/1982, para. 544). His suggestion is, therefore, that psychosis should be seen and interpreted as a sort of waking dream. In analytical psychology, dreams are unconscious and archetypal laden events, rich in meaning. The psychotic experience is no different, lending it a numinous and distracting quality (Jung, 1939/1982, para. 528).

6 The Autonomous Complex

One key casual factor according to Jung was the autonomous complex. Complex theory was itself created by Jung following on from conclusions from his word association experiments (Roesler, 2017). While his methods might not adhere to modern standards of scientific research, his complex theory could be said to have an evidence base. The complex is a psychological unit, present in both normal and pathological states. In defining a complex, Jung says they are a 'fabric of ideas' which are associated with a 'feeling-tone' or affect in contemporary language. He saw them as a 'higher psychic unity' with the ego complex being the 'highest psychic authority' (Jung, 1907/1982, para. 82). Jung suggests that '*every affective event becomes a complex*' (his italics). Unless the affective event touches upon a pre existing complex, and if the affect is only of momentary significance, the new complex 'sinks' into the unconscious, waiting to be activated again (Ibid, para. 140). Over time Jung states that a person can be rid of a complex if it is pathological. This process can also be forced by displacement, best achieved by engaging in an activity that is in direct opposition to the complex itself. If a complex remains unchanged, which Jung suggests can happen due to a relatively weaker ego, then psychosis can result when the complex becomes fixed (Ibid, para. 141). Jung does not clearly define what fixing of a complex means, however it seems reasonable to assume this means it becomes an established unshakable part of the psychic make up.

Jung describes the autonomous complexes as having 'banal, grotesque, or highly exaggerated' characters that do not 'co-operate with the patient's con-

consciousness' (Jung, 1939/1982, para. 508). In schizophrenia there is not one complex (i.e. the ego complex) but several autonomous complexes that account for the presentation. The ego is 'only one of the experiencing subjects' (Jung, 1928, para. 498). This then leads to a variety of symptoms, such as the lack of self-control (Jung, 1907/1982, para. 151). He states that in the word association experiment there is proof that the connection between the ego and other complexes is completely lost in cases of dementia praecox (Jung, 1939/1982, para. 506).

Jung believed that the complex is responsible for various symptoms and signs of psychosis. For instance, he notes from his word association experiments and daily practice that touching on (or activating) a complex, even with a small trigger, can produce pathological reactions. These can be emotional outbursts, violent outbursts or inappropriate laughter, the latter is a common feature of psychosis (Ibid, para. 103,149). The consistent lack of rapport seen in patients with psychosis is related, according to Jung, to the strength and stability of the autonomous complex. Any interactions are with the complex, not the patient's ego. The only moments of rapport are reached when for some reason one can converse with the patient's ego (Ibid, para. 152). Disturbances of attention in psychosis such as 'thought block' are caused by the autonomous complex distracting from all other psychic activities (Ibid, para. 162). 'Thought withdrawal' is another common symptom of psychosis which Jung again attributes to the strength of the autonomous complex. This distracts the patient to such an extent that they cannot think of what to say. They often project the cause to an external agent. It would be reasonable to assume a similar explanation for thought insertion and broadcast, which are also common features of psychosis (Ibid, para. 175). Jung suggests that the content of a complex degenerate over time, making them less intelligible and understandable, as the chronicity of the disease sets in. He presents it as almost self-destruction of the complex, using its own psychic energy (Jung, 1957/1982, para. 546).

Within this understanding, Jung felt that there were parallels in the aetiology of psychosis and neurosis, namely that an autonomous complex is an explanation of pathology in both conditions. However, the outward presentation of the two is markedly different. Jung states that withdrawal of all emotional rapport and contact with others will most likely result in psychosis (Ibid, para. 492). This statement is in line with Jung's idea that psychosis is an introverted response (Jung, 1914b/1982, para. 418).

Recent neuroscientific research has found neural correlates of complex's and it has been shown that they can negatively affect the learning process (Roesler, 2017; Silverstein, 2014). Studies confirming a pathological complex within the schizophrenic brain are not present. However, studies in temporal

lobe epilepsy, which can be related to psychosis and shares some symptomatology, have shown that cortical networks (complexes) become isolated when there is a general weakening of cortical connectivity due to the reduction of brain receptor activity. The isolated cortical networks were shown to subsequently strengthen and enlarge (Silverstein, 2014). This could be evidence of the mechanism of abaissement and the strengthening of an autonomous complex.

7 Jung's Toxin

Throughout his work on psychosis, Jung hints at the presence of a toxin that contributes to the aetiology of psychosis. His definition of the toxin is vague, as are its mechanisms of action but it is a key a part of his understanding. At one point he describes this toxin as a 'noxious agent' that is produced by an 'excessively strong affect' (Jung, 1958/1982, para. 581). Elsewhere he suggests the autonomous complex produce it (Jung, 1907/1982, para. 195). Jung felt that due to the extreme presentation of symptoms in psychosis and its worsening of symptoms and chronicity in some cases, that a destructive toxin must be involved (Jung, 1957/1982, para. 548).

The complex interactions between neurotransmitter are hypothesized to be of particular importance for psychosis formation (M. Carlsson & Carlsson, 1990; Goff & Coyle, 2001). On reflection and in context of available evidence, it could be that any of these neurotransmitters could be a candidate for Jung's 'toxin'. It is now indeed scientifically established that altered dopaminergic function underlies the positive psychotic symptoms of the schizophrenia. Several radiolabelled DOPA positron emission tomography (PET) studies have reported increase in dopamine in schizophrenia (Demjaha et al., 2012). Furthermore, pharmacological evidence indicates that the efficacy of antipsychotic drugs is related to dopamine receptor blockade, beginning with observations that the relative clinical potencies of antipsychotic drugs closely parallels their affinity to bind and block the dopamine D₂ receptor subtype (Creese et al., 1976; Seeman et al., 1976), lending further support to dopamine hypothesis. Dopamine is a naturally occurring neurotransmitter that plays important role in cell functioning, however when increased to the levels seen in schizophrenia, it becomes 'toxic' leading to increased salience and subsequent reality distortion. However, the dopamine dysfunction is not be the only abnormality in patients with schizophrenia; the pathophysiology of such a complex disorder involves aberrations in other neurotransmitters, such as glutamate and Gamma-Aminobutyric Acid (GABA) (A. Carlsson et al., 2001).

For instance, increased dopamine levels can't explain treatment resistance where despite adequate dopamine blockade patients continue to experience severe psychotic symptoms. The first two studies to directly examine dopamine and glutamate function in treatment-resistant patients with schizophrenia, demonstrated normal dopamine but increased glutamate levels in treatment resistant patients (Demjaha et al., 2012, 2014). This could be the reason for effectiveness of clozapine, the only antipsychotic that works in these patients, as it is only a weak dopamine blocker, but instead his efficacy is mediated via glutamatergic and serotonergic pathway as indicated by recent neurochemical imaging literature (Tanahashi et al., 2012).

8 Symptoms of Psychosis

Contrary to our modern reasoning, Jung saw meaning in the symptoms of schizophrenia. He alleges that all normal aspects of the personality not found in the conscious mind are likely to be found in the unconscious (Jung, 1914a/1982, para. 449). When this unconscious content becomes manifest, it is still an aspect of the person who is psychotic. Symptoms within psychosis therefore must have a meaning. More than 'molten lead solidifying in random drops', the content of the psychosis often makes up for deficiencies in the patient's life or personality (Jung, 1908/1982, para. 347). When presenting a case study, Jung states that the patients hallucinations and delusions can be understood when you know the patients personality, social circumstances and personal history (Jung, 1907/1982, para. 294). For example, he describes the case of a woman who was in inpatient for thirty-five years who in modern medical terms could be described as intermittently catatonic. She would engage in manneristic movements with her hands that had baffled staff. After her death Jung attended the funeral and asked family members what she had been like before becoming unwell. They said that the precipitant to her psychotic episode was the ending of a romantic relationship with a shoemaker. On reflection her movements in her psychotic state were those of a shoe making (Jung, 1908, para. 358). Jung later stated that a reductionist psychoanalytic view of the symptoms of psychosis, i.e. only personal, not archetypal, may lead one to miss out on content that could be interpreted (Jung, 1914b/1982, para. 390). At other times he goes further to say that most elements of psychosis cannot fit into a personalistic understanding (Jung, 1957/1982, para. 544).

Concerning hallucinations and delusions, Jung states that they arise from unconscious content being forced across the conscious threshold (Jung, 1914a/1982, para. 454). Hallucinations and delusions were seen as 'symbolically dis-

torted fragments' of the autonomous complex (Jung, 1907/1982, para. 180). In an attempt to give an anatomical understanding to his theories, Jung suspected that hallucinations were created in the occipital lobe of the brain. He extended this idea further to say that this could be a potential location for the archetypes and the collective unconscious. Recent work has documented the temporal cortex involvement in auditory hallucinations (Kasai et al., 2002) and the occipital lobe concerned with visual hallucinations (Beniczky et al., 2002). Jung did not separate auditory and visual hallucinations so his assumption can be considered partly true.

Many symptoms of schizophrenia are related to language, particularly syntax. A common feature are neologisms, the creation of new previously meaningless words. Jung suggests that neologisms are produced by 'contamination', where several ideas are condensed into one sentence (Jung, 1907/1982, para. 49). He gives examples where several meanings can be found in one neologism laden phrase. This is cited as 'evidence of apperceptive weakness' which Jung finds to be a key in the aetiology of psychosis. Jung suggests that neologisms are the clearest aspects of abnormality that indicate the content of the autonomous complex in most cases. This is useful to Jung as neologisms can be investigated objectively with his word association tests. In these situations, he used neologisms as stimulus words and observed for delays in response. This gives the clinician an empirical method to investigate the complex at work (Ibid, para. 214). Other symptoms related to language such as clang associations and word salad are explained by Jung as patients diverting attentions away from questions that are asked of them. This is done to avoid talking about subjects relevant to the pathological complex (Ibid, para. 157). Even in conversation where language is normal, Jung describes there are no difficulties unless the topics touch on the subject of the patient's delusions (Ibid, para. 202). Jung notes that delusions can become fixed and persistent, which he attributes to the fact that the patient's attention has been fixed to such an extent on particular idea that it represses all other thoughts (Jung, 1907/1982, para. 304).

Besides language disturbances, Jung investigates and attempts to explain other common symptoms and signs of psychosis. He concludes the sleeping difficulties often found in those with psychosis, are due to the autonomous complex being stronger than the ego complex. Within the ego complex, the drive to sleep can be found and is therefore lost (Ibid, para. 181). Jung sees stereotypy, which is repetition of an act that has no obvious purpose as a variant on the normal process of automatisation, what we might contemporarily call muscle memory. Directed actions, repeated often, and as Jung suggests, with an accompanying affect, will result in the movement becoming easy and remembered with the slightest cue. The strong autonomous complex suggested

in dementia praecox can lead to cueing the same movements over and over. A sort of automatic misfiring of motor neurones. The movements or repetitions can be interpreted and will offer clues as to content of the causal complex. Jung also comments that these movements tend to continue for some time and slowly transform from their original function, making them harder to interpret. In line with this, Jung describes the case of a patient who made movements to comb their hair (to remove plaster, as related to the autonomous complex) but this progressed to combing the body. He saw this degenerative process also taking place in the way hallucinations and delusions progressed over time (Ibid, paras. 182–190).

9 An Organic or Non-Organic Condition?

Another major point in Jung's conceptualisation of schizophrenia is the genesis of psychosis and deducing whether it is of organic or non-organic aetiology. An organic illness has discernible changes in anatomy and physiology that can be attributed to that condition. A non-organic disease has no such anatomical evidence, they are often psychiatric illnesses. It is important to note that these definitions come from a time before the invention and use of modern brain scans, which permit brain structural and functional investigations and showed brain alteration in psychotic patients. The organic/nonorganic classification also lends itself to preferred treatments with organic conditions having pharmaceutical or surgical treatments and non-organic having psychological. At present, although pharmacotherapy is a mainstay of treatment of psychosis and despite documented morphometric brain changes and genetic involvement (Karlsgodt et al., 2010), psychosis is still classified as a non-organic condition. Jung's debating on the subject is still relevant today where we still do not have the answer as to what causes psychosis, but awareness that the aetiology is multifactorial involving both organic and non-organic factors.

Jung blamed the first world war and its traumatic psychological sequelae for the adage that mental illness is a disease of the brain (Jung, 1928, para. 496). He described this supposition as a dogma that needed to be dispensed with (Jung, 1908/1982, para. 322). Jung states that there are stark differences in the symptomatology of psychosis when compared to other organic diseases (Ibid, para. 471). He comments that the psyche is more than just a by-product of the brain, i.e. more than just an organic process. Jung advises removing this prejudice and asking what the psyche is aiming at in psychosis (Jung, 1914b/1982, para. 410). What Jung himself is aiming at is a psychological cause of the condition. He believed to the extent, that he had abandoned all anatomical research

at his institute in Zurich (Jung, 1908/1982, para. 332). In support of his psychological argument, he describes how many symptoms including hallucinations and delusions, are present in persons with confirmed non-organic conditions and the normal psyche (Jung, 1914a/1982, para. 453).

While a psychological cause is clearly Jung's preferred explanation for psychosis, there are points in his writing where he contradicts himself and acknowledges there could be both organic and non-organic processes at work. He suggests, for example, that psychosis has an original psychological cause, perhaps due to a predisposition. This then causes secondary organic changes in some patients (Jung, 1908/1982, para. 318). Jung also concedes that there may be a small number of primary organic causes of psychosis (Jung, 1919/1982, para. 493), stating further that psychological treatments can only go so far. If the biological and psychological treatments could be combined, then this would be the epitome of treatment (Jung, 1957/1982, para. 549). This is possible in the present day, as our biological (pharmacological) treatments in combination with available to NHS psychological treatments can treat the disease. However, we have largely traded our psychological treatments in for the biological and not combined the two as Jung suggests. Despite all the above concessions to an organic cause, Jung's last word on the subject, at least chronologically, is that on balance psychosis probably is a psychological condition (Jung, 1958/1982, para. 570).

Considering how the discussion of psychosis as an organic vs non organic condition has changed up to the present date is complicated by the changing nomenclature and further definition of psychosis. Now there are a number of established organic causes for psychosis (Joyce, 2018). Jung would only likely have been aware of the complications of neurosyphilis and some variants of epilepsy and noted that their presentations were different. Since Jung's time it has also been suggested that schizophrenia itself is an organic condition (Cutting, 1987). This was supported by the relatively higher rate of perinatal complications, increased birth rates in winter months and physical cerebral ventricular changes on computed tomography brain scans. Cutting's paper details a comparison between acute organic psychosis and acute schizophrenia. He found that delusions, perceptual disturbance and thought disorder were statistically different between the two groups. Schizophrenia therefore retained its distinct nonorganic state according to his results. This has persisted to the present day although new discoveries such as NMDA autoantibodies and their involvement in psychotic presentations (Ellul et al., 2017) brings more psychotic presentations into the organic domain. In the future, one can see the organic/non-organic debate losing its significance as psychosis becomes a multifactorial condition affected by biological and psychological factors. Remem-

bering that psychology has something to offer is what needs to be held onto in the modern era of scientific investigation.

10 Creativity and Psychosis

A unique aspect to Jung's conceptualisation of psychosis is the power of creativity in the psychotic process and framing the condition as the psyche trying to heal itself on some occasions. Jung noted that the psychosis could creatively make up for deficiencies in the patient's life or personality (1908/1982, para. 347). He saw parallels in art, such as poetry, within the psychotic process. He suggests that using art to investigate and provide answers to questions or problems often results in strange and odd creations, rather like psychosis (Jung, 1908, para. 355,385). Developing this idea, he suggests that patients should paint or drawing their current situation to give their mind distance from the unconscious and help them work through their psychosis. Jung advises that painting is one of the most effective tools as the colour choice allows the inclusion of feelings within the picture (Jung, 1958, para. 562). One cannot read this advice without being reminded of Jung's own experience in *The Red Book* (2009). As mentioned earlier in this paper, we do not think it clear that Jung's experience would qualify him for a diagnosis of schizophrenia or if the episode can be described as psychotic from a medical standpoint. However, he does experience intense multi modal hallucinations in his experiences. He also works through the process using creativity, drawing and writing out his experiences. Jung's experience as described in *The Red Book* was not discussed in public by him. However, one can assume from his advice of using art and creativity in the treatment of psychosis that it influenced his professional work.

This unique way of approaching psychosis found better expression in the work of John Weir Perry. Perry was a psychiatrist and Jungian analyst who devoted his professional life to the psychology and treatment of schizophrenia (Benveniste, 1999). In particular, he formulated theories and treatments related to brief psychotic episodes and first episodes of psychosis. Jung stayed with Perry when he visited Harvard University to give a lecture. After completing his medical training, Perry attended the Jung Institute in Zurich, was analysed by Toni Wolff and supervised by Jung. He went on to create three residential treatment programmes for young people who had experienced brief psychotic episodes. These were in the style of therapeutic communities and were named The Agnews Project, Diabasis and Diabasis II. He worked with many patients with psychosis throughout his career, including those in the acute phase of the illness. Jung himself wrote the forward to one of Perry's works, *The Self in Psy-*

chotic Process (1953). Jung comments that Perry is a prime example of his own approach to psychosis. In his work, Jung says Perry has verified his theories regarding psychosis and made them into facts.

The psychotic experience itself, Perry suggests, is nothing less than the creation of a private universe. Two of Perry's books, *The Self in Psychotic Process* (1953) and *The Far Side of Madness* (1990), afford further insight. Both works concern therapy with multiple psychotic patients and demonstrated the creativity of psychosis and the use of creative arts within the treatment. Perry comments on using drawing and painting in his work with psychotic patients. He suggests that this has a function for both the patient and the therapist. The patient can represent their delusions and enable a more objective view of the inner contents of their mind from which they need to detach themselves. For the therapist, it can give a more explicit representation of what are often fleeting thoughts and mental states (Perry, 1953, p. 12,48). Pens, paints and other kinds of drawing implements were always on hand in Perry's individual sessions (Perry, 1990, p. 160). Perry describes patients needing little encouragement to use the creative materials; in fact, there is a natural inclination to use them (Ibid, p. 143).

The use of creative expression within Perry's work had several functions (Ibid, pp. 139–147). As a form of communication, it allowed what cannot be put into words to be represented by patients. This is important due to the noted difficulties in verbal communication in psychosis. Furthermore, numinous experiences, which show parallels with the psychotic process, are often described as hard to put into words. Perry emotively describes humanity as 'crushingly incapable' (Ibid, p. 139) of accurately doing so, necessitating the need for other forms of expression, such as visual images. He sees creativity not only driving and being a natural part of psychosis but also facilitating working through the material to bring the experience to an end. Finally, he comments that given the power of creativity, patients can create aesthetically pleasing artworks. These can be in any form but include poems, paintings and prose to describe the inner experience of psychosis.

Perry's method involved taking a supportive and inquisitive stance and considering the meaning of what is created within sessions. His aim is to support the re-integration of material into the psyche. Perry saw psychosis as progressing over several stages and artistic creation giving form to these phases of transition. Through creative expression, Perry also aims to identify the patients suppressed affects. He saw whatever was created as emotionally laden and actively sought out the patient's mood when engaged in artistic work. Perry suggested that this facilitated the working through process that would result in the end of the psychotic experience.

As per Jung, he felt that the therapist could understand the patient's experience personally and at an archetypal level. In one example, he interprets a drawing of a patient's deceased grandfather in terms of the patient's developmental history and as an archetypal representation of death and renewal with parallels to the Osiris myth of Egyptian mythology (Ibid, p. 144). In psychosis, Perry saw interpretation as converting raw and archaic material into something that the therapist can understand. At the end of the psychotic process, the patient reviews the work created as a final part of working through. It is clear from Perry's works that he felt his treatment methods facilitated long-term improvement in psychotic patients' symptoms. In an interview (Henderson & Henderson, 1997) conducted towards the end of his life, he suggests that no medication is needed whatsoever to treat psychosis. The medication dampens the creative process described above and should be avoided if possible. He cites a double-blind study that he undertook comparing placebo to treatment with medication which proves this fact. However, he does not provide details of any specific results or comment on the study's publication. This opinion runs counter to modern-day treatments (NICE, 2014) and would be a controversial approach that would receive little support in the present day. However the modern day reliance on the use of medication could learn much from Jung and Perry's work. The idea that the psychotic process is the psyche trying to heal itself and that within it are opportunities for personal growth is a wholly positive approach that runs counter to the illness paradigm in modern psychiatry.

11 Conclusion

In this paper we have summarised an analytical psychology understanding of psychosis across multiple themes. In paralleling concepts to cotemporary discoveries in the field, we hope to have demonstrated how an analytical psychology approach to psychosis could have a scientific basis and is relevant to psychiatry today. Jung has been somewhat left out of the history of schizophrenia despite his close working relationship with Bleuler at the conception of the term. Amongst all of the schools of depth psychology we hope to have demonstrated that analytical psychology should at least have parity of esteem and at best be noted to have the largest body of work, both theoretically and clinically, concerning psychosis. It is our hope that more psychological interventions, based on concepts from analytical psychology, will become part of healthcare again in the future as we come to realise the limits of solely pharmacological solutions to psychosis.

References

- Beniczky, S., Kéri, S., Vörös, E., Ungureán, A., Benedek, G., Janka, Z., & Vécsei, L. (2002). Complex hallucinations following occipital lobe damage. *European Journal of Neurology*, 9(2), 175–176. <https://doi.org/10.1046/J.1468-1331.2002.00353.X>
- Benveniste, D. (1999). John Weir Perry 1914–1998. *Journal of Humanistic Psychology*, 39(2), 48–50. <https://doi.org/10.1177/0022167899392004>
- Berenbaum, H., & Fujita, F. (1994). Schizophrenia and Personality: Exploring the Boundaries and Connections Between Vulnerability and Outcome. In *Journal of Abnormal Psychology* (Vol. 103, Issue 1, pp. 148–158). <https://doi.org/10.1037/0021-843X.103.1.148>
- Bion, W.R. (1958). On Hallucinations. *International Journal of Psycho-Analysis*, 39, 341–349.
- Buckner, R.L., Andrews-Hanna, J.R., & Schacter, D.L. (2008). The brain's default network: Anatomy, function, and relevance to disease. In *Annals of the New York Academy of Sciences* (Vol. 1124, Issue 1, pp. 1–38). John Wiley & Sons, Ltd. <https://doi.org/10.1196/annals.1440.011>
- Carhart-Harris, R.L., & Friston, K.J. (2010). The default-mode, ego-functions and free-energy: A neurobiological account of Freudian ideas. In *Brain* (Vol. 133, Issue 4, pp. 1265–1283). Oxford University Press. <https://doi.org/10.1093/brain/awq010>
- Carlsson, A., Waters, N., Holm-Waters, S., Tedroff, J., Nilsson, M., & Carlsson, M.L. (2001). Interactions between monoamines, glutamate, and GABA in schizophrenia: new evidence. *Annual Review of Pharmacology and Toxicology*, 41, 237–260. <https://doi.org/10.1146/ANNUREV.PHARMTOX.41.1.237>
- Carlsson, M., & Carlsson, A. (1990). Interactions between glutamatergic and monoaminergic systems within the basal ganglia—implications for schizophrenia and Parkinson's disease. *Trends in Neurosciences*, 13(7). [https://doi.org/10.1016/0166-2236\(90\)90108-M](https://doi.org/10.1016/0166-2236(90)90108-M)
- Creese, I., Burt, D.R., & Snyder, S.H. (1976). Dopamine receptor binding predicts clinical and pharmacological potencies of antischizophrenic drugs. *Science (New York, N.Y.)*, 192(4238), 481–483. <https://doi.org/10.1126/SCIENCE.3854>
- Cutting, J. (1987). The phenomenology of acute organic psychosis. Comparison with acute schizophrenia. *British Journal of Psychiatry*, 151(SEPT.), 324–332. <https://doi.org/10.1192/bjp.151.3.324>
- Demjaha, A., Lappin, J.M., Stahl, D., Patel, M.X., MacCabe, J.H., Howes, O.D., Heslin, M., Reininghaus, U.A., Donoghue, K., Lomas, B., Charalambides, M., Onyejiaka, A., Fearon, P., Jones, P., Doody, G., Morgan, C., Dazzan, P., & Murray, R.M. (2017). Antipsychotic treatment resistance in first-episode psychosis: prevalence, subtypes and predictors. *Psychological Medicine*, 47(11), 1981–1989. <https://doi.org/10.1017/S0033291717000435>

- Demjaha, Arsime, Egerton, A., Murray, R.M., Kapur, S., Howes, O.D., Stone, J.M., & McGuire, P.K. (2014). Antipsychotic treatment resistance in schizophrenia associated with elevated glutamate levels but normal dopamine function. *Biological Psychiatry*, 75(5). <https://doi.org/10.1016/J.BIOPSYCH.2013.06.011>
- Demjaha, Arsime, Murray, R.M., McGuire, P.K., Kapur, S., & Howes, O.D. (2012). Dopamine synthesis capacity in patients with treatment-resistant schizophrenia. *The American Journal of Psychiatry*, 169(11), 1203–1210. <https://doi.org/10.1176/APPI.AJP.2012.12010144>
- Ellul, P., Groc, L., Tamouza, R., & Leboyer, M. (2017). The clinical challenge of autoimmune psychosis: Learning from anti-NMDA receptor autoantibodies. In *Frontiers in Psychiatry* (Vol. 8, Issue APR, p. 54). Frontiers Research Foundation. <https://doi.org/10.3389/fpsy.2017.00054>
- Escamilla, M. (2016). *Bleuler, Jung, and the Creation of Schizophrenias* (1st ed.). Daimon Verlag.
- Germann, M., Brederoo, S.G., & Sommer, I.E.C. (2021). Abnormal synaptic pruning during adolescence underlying the development of psychotic disorders. *Current Opinion in Psychiatry*, 34(3), 222–227. <https://doi.org/10.1097/YCO.0000000000000696>
- Goff, D.C., & Coyle, J.T. (2001). The emerging role of glutamate in the pathophysiology and treatment of schizophrenia. *The American Journal of Psychiatry*, 158(9), 1367–1377. <https://doi.org/10.1176/APPI.AJP.158.9.1367>
- Henderson, J., & Henderson, R. (1997). The spiritual foundations of madness an interview with John Weir Perry, M.D. *Psychological Perspectives*, 35(1), 42–62. <https://doi.org/10.1080/00332929708403310>
- Hu, M.L., Zong, X.F., Mann, J.J., Zheng, J.J., Liao, Y.H., Li, Z.C., He, Y., Chen, X.G., & Tang, J.S. (2017). A Review of the Functional and Anatomical Default Mode Network in Schizophrenia. In *Neuroscience Bulletin* (Vol. 33, Issue 1, pp. 73–84). Science Press. <https://doi.org/10.1007/s12264-016-0090-1>
- Joyce, E.M. (2018). Organic psychosis: The pathobiology and treatment of delusions. *CNS Neuroscience & Therapeutics*, 24(7), 598. <https://doi.org/10.1111/CNS.12973>
- Jung, C.G. (1907). The Psychology of Dementia Praecox. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G. Jung Volume 3* (3rd ed., pp. 1–316). Princeton University Press.
- Jung, C.G. (1908). The Content of the Psychoses. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G. Jung Volume 3* (3rd ed., pp. 317–387). Princeton University Press.
- Jung, C.G. (1914a). On Psychological Understanding. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G. Jung Volume 3* (3rd ed., pp. 388–424). Princeton University Press.
- Jung, C.G. (1914b). On the Importance of the Unconscious in Psychopathology. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G. Jung Volume 3* (3rd ed., pp. 438–465). Princeton University Press.

- Jung, C.G. (1919). On the Problem of Psychogenesis in Mental Disease. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G Jung Volume 3* (3rd ed., pp. 466–495). Princeton University Press.
- Jung, C.G. (1928). Mental Disease and the Psyche. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G Jung Volume 3* (3rd ed., pp. 496–503). Princeton University Press.
- Jung, C.G. (1939). On the Psychogenesis of Schizophrenia. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G Jung Volume 3* (3rd ed., pp. 504–541). Princeton University Press.
- Jung, C.G. (1952). The Song of the Moth. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G. Jung Volume 5*. Princeton University Press.
- Jung, C.G. (1957). Recent Thoughts on Schizophrenia. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G Jung Volume 3* (3rd ed., pp. 542–552). Princeton University Press.
- Jung, C.G. (1958). Schizophrenia. In H. Read, M. Fordham, & G. Adler (Eds.), *The Collected Works of C.G Jung Volume 3* (3rd ed., pp. 553–584). Princeton University Press.
- Jung, C.G. (2009). *The Red Book Liber Novus* (S. Shamdasani (ed.)). Philemon Series.
- Karlsgodt, K.H., Sun, D., & Cannon, T.D. (2010). Structural and Functional Brain Abnormalities in Schizophrenia. *Current Directions in Psychological Science*, 19(4), 226. <https://doi.org/10.1177/0963721410377601>
- Kasai, K., Iwanami, A., Yamasue, H., Kuroki, N., Nakagome, K., & Fukuda, M. (2002). Neuroanatomy and neurophysiology in schizophrenia. In *Neuroscience Research* (Vol. 43, Issue 2, pp. 93–110). Elsevier. [https://doi.org/10.1016/S0168-0102\(02\)00023-8](https://doi.org/10.1016/S0168-0102(02)00023-8)
- Lien, Y.-J., Tsuang, H.-C., Chiang, A., Liu, C.-M., Hsieh, M.H., Hwang, T.-J., Liu, S.K., Hsiao, P.-C., Faraone, S.V., Tsuang, M.T., Hwu, H.-G., & Chen, W.J. (2009). The multidimensionality of schizotypy in nonpsychotic relatives of patients with schizophrenia and its applications in ordered subsets linkage analysis of schizophrenia. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, 9999B(1), n/a-n/a. <https://doi.org/10.1002/ajmg.b.30948>
- Lucas, R. (2009). *The Psychotic Wavelength: A Psychoanalytic Perspective for Psychiatry* (1st ed.). Routledge.
- Marchese, F., Bonanno, B., Borinato, D., Burgio, S., Mangiapane, D., Marco, M., Epifania, S., & La Barbera, D. (2021). Psychosis, symbol, affectivity 2: another perspective on the treatment of psychotic disorder. *Journal of Analytical Psychology*, 66(2).
- Metman, P. (1956). The Ego in Schizophrenia. *Journal of Analytical Psychology*, 1(2), 161–176. <https://doi.org/10.1111/j.1465-5922.1956.00161.x>
- NICE. (2014). *Overview | Psychosis and schizophrenia in adults: prevention and management | Guidance | NICE*. <https://www.nice.org.uk/guidance/cg178>
- Perry, J.W. (1953). *The Self in Psychotic Process*. Cambridge University Press.
- Perry, J.W. (1990). *The Far Side Of Madness*. Spring Publications.

- Roesler, C. (2017). Complex (Jung). In *Encyclopedia of Personality and Individual Differences* (pp. 1–3). Springer International Publishing. https://doi.org/10.1007/978-3-319-28099-8_575-1
- Schmidt, M. (2012). Psychic skin: Psychotic defences, borderline process and delusions. *Journal of Analytical Psychology*, 57(1), 21–39. <https://doi.org/10.1111/j.1468-5922.2011.01949.x>
- Schothorst, P.F., Emck, C., & van Engeland, H. (2006). Characteristics of early psychosis. *Comprehensive Psychiatry*, 47(6), 438–442. <https://doi.org/10.1016/j.comppsy.2006.03.003>
- Sebastian, C., Burnett, S., & Blakemore, S.J. (2008). Development of the self-concept during adolescence. *Trends in Cognitive Sciences*, 12(11), 441–446. <https://doi.org/10.1016/J.TICS.2008.07.008>
- Seeman, P., Lee, T., Chau-Wong, M., & Wong, K. (1976). Antipsychotic drug doses and neuroleptic/dopamine receptors. *Nature* 1976 261:5562, 261(5562), 717–719. <https://doi.org/10.1038/261717a0>
- Sideli, L., Murray, R.M., Schimmenti, A., Corso, M., La Barbera, D., Trotta, A., & Fisher, H.L. (2020). Childhood adversity and psychosis: a systematic review of bio-psycho-social mediators and moderators. *Psychological Medicine*, 50(11), 1761–1782. <https://doi.org/10.1017/S0033291720002172>
- Silverstein, S.M. (2014). Jung's views on causes and treatments of schizophrenia in light of current trends in cognitive neuroscience and psychotherapy research II: Psychological research and treatment. *Journal of Analytical Psychology*, 59(2), 263–283. <https://doi.org/10.1111/1468-5922.12073>
- Tanahashi, S., Yamamura, S., Nakagawa, M., Motomura, E., & Okada, M. (2012). Clozapine, but not haloperidol, enhances glial D-serine and L-glutamate release in rat frontal cortex and primary cultured astrocytes. *British Journal of Pharmacology*, 165(5), 1543–1555. <https://doi.org/10.1111/J.1476-5381.2011.01638.X>
- The National Institute for Health and Care Excellence. (2014). *Psychosis and schizophrenia in adults: prevention and management | Guidance and guidelines | NICE*. <https://www.nice.org.uk/guidance/cg178/chapter/1-Recommendations>
- World Health Organisation. (2019). *ICD-10*. <https://icd.who.int/browse10/2019/en#/F20>
- Zanchettin, J. (2018). Sigmund Freud's clinical intuition in the field of psychosis. *Psicologia USP*, 29(1), 116–125. <https://doi.org/10.1590/0103-656420170103>