

Irrationality and pathologization of delusions

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Abstract

Pathological delusions are special because they are considered symptoms of illness; which judgment is made based on coexisting information that makes the delusions symptom-like, rather than based on delusions' irrationality. When a delusion is judged pathological, we do not treat and evaluate the patient holding it as we treat and evaluate those who believe its content. The development of pathological delusions is a sign that an illness has worsened. Pathological delusions' behavior sometimes resembles that of typical beliefs; however, this marks patients' more distant departure from normality, and their illness' further aggravation.

1. Introduction

Delusions are usually understood as 'incurable false beliefs.'¹ Recently, however, writers have

¹ The diagnostic and statistical manual of mental disorders, fifth edition (DSM-5) defines delusion as follows:

A false belief based on incorrect inference about external reality that is firmly held despite what almost everybody else believes and despite what constitutes incontrovertible and obvious proof or evidence to the contrary. The belief is not one ordinarily accepted by other members of the person's culture or subculture (e.g. it is not an article of religious faith). When a false belief involves a value judgment, it is regarded as a delusion only when the judgment is so extreme as to defy credibility. (American Psychiatric Association, 2013, p. 819)

The DSM-5 defines delusions as incurable false beliefs that are not 'ordinarily accepted by other members of the person's culture or subculture.' I have not included this clause in this paper's definition of delusion for the sake of convenience. This point is discussed in section 2.1.

Two additional points require mention. First, the standard terminology of psychiatry classifies false but persistent suspicions that do not reach conviction 'ideas' or 'ideations,' and distinguishes them from delusions. For instance, whereas false and incurable convictions that 'events, objects, or other persons in one's immediate environment are seen as having a particular and unusual significance' are called 'delusions of reference,' feelings or suspicions with the same content are termed 'ideas of reference' (APA, 2013, p. 819, 823). In the context of cognitive behavioral therapy, delusion is defined broadly, to incorporate a spectrum of conviction, which subsumes both delusions in the narrower sense and ideations. Regarding this point, see also section 3.2. This paper adopts terminology that distinguishes delusions from ideas. Emphasizing this distinction need not negate the possibility of transition between delusions and ideas. It is known that ideas of reference often develop into delusions of reference with the aggravation of illness. Nonetheless, the distinction between ideas and delusions retains its significance, since the notion of delusion has the connotation that the illness is sufficiently serious that the patient's agency and autonomy are

doubted that delusions may be considered as beliefs, because of delusions' profound irrationality.² Those who deny that delusions are beliefs are termed 'anti-doxasticists' regarding delusions. For instance, Currie (2000) contends that delusions represent a type of imagination, rather than belief. Egan (2009) termed delusions 'bimagination'—an idiosyncratic mental state that possesses characteristics of both belief and imagination. Hohwy and Rajan (2011) consider delusions the kindred of illusions. Schwitzgebel (2011) asserts that delusions are in-between mental states, regarding which 'it is neither quite right to say the subject determinately believes the delusive content nor quite right to say that she determinately fails to believe that content.' Against these, so-called 'doxasticists,' such as Bortolotti, contend that delusions do represent a type of belief (Bayne and Pacherie, 2005; Bortolotti, 2005; 2010; 2011; 2012; Stone and Young, 1997).

Recent debates of whether delusions are beliefs have focused on delusions' irrationality, and whether that quality prevents delusions' classification as beliefs. However, another point bears on delusions' doxicity, to wit: whether delusions' status as symptoms of illness prevents delusions' treatment as a belief type.

The philosophy of mind has had problems accommodating irrational intentional states since Davidson showed the interconnection between intentionality and rationality. This problem has been well discussed in connection with such phenomena as self-deception and weakness of will (Davidson, 1969; 1986). Delusions are irrational intentional states; hence, this problem also applies to delusions. Indeed, Evnine (1989) discussed the validity of considering delusions as beliefs from this viewpoint. The problem of irrationality is not specific to delusions, however; rather, delusions are special because they are considered symptoms of illness. To show delusions' particularity, the significance of their symptomhood should therefore be analyzed. No extant paper has addressed this point.

This paper aims to illustrate on what basis delusions are judged as symptoms of illness, and

partially intruded upon. Compare this with the distinction between compensated and decompensated heart failure. Although transition exists between these, the differentiation's importance is not lost. Regarding the relationship between the presence of delusion and illness severity, see also section 4.2.

Second, Jaspers distinguished delusions proper (*echte Wahn*) from delusion-like ideas (*Wahnhafte Ideen*) based on their relative understandability (Jaspers, 1963b, p. 96). This distinction roughly coincides with the distinction between primary and secondary delusions in Anglo-American psychiatry (Sims, 2008, p. 214f); however, the DSM classifies both as delusion. I will follow the terminology of the DSM in this paper.

² Many counterexamples have been raised against the idea that delusions are necessarily false in content. Those counterexamples include such cases as that of a wife who has a delusion of jealousy, whose husband really is having an affair (Jaspers, 1963b, p. 106), and cases of the hypochondrical delusion that is expressed in a persistent claim of having gone 'mad' (Fulford, 1989, p. 203f). Some writers have therefore proposed that falsehood is not a necessary condition of delusion. For example, Spitzer defines delusions as 'statements about external reality which are uttered like statements about a mental state, i.e., with subjective certainty and incorrigible by others' (Spitzer, 1990). This definition, however, cannot exclude what Wittgenstein called 'framework propositions,' which constitute our basic and undoubted worldview, and which include such statements as 'the Earth has existed since time immemorial' and 'I have two hands' (Wittgenstein, 1969), since these are also incorrigible and stated with subjective certainty. I assert that falsehood is a necessary feature of delusions. There are certainly delusions the central content of which happens to be true; however, in these cases, the patients hold them based on wrong reasons or in concert with other false beliefs. If a belief's central and collateral content is true, it is impossible to deem it a delusion.

what connotations follow when they are judged as such. I believe that this will provide a novel viewpoint on recent philosophical discussion concerning whether delusions are beliefs.

The present paper's structure is as follows: In section 1, I will introduce the notion of mental states' belief-likeness, which is determined by their degree of conformation to what Bortolotti defined as the norms of rationality. Recent debate regarding delusions is then reviewed, showing in what regards delusions are and are not belief-like. In section 2.1, characteristics heightening delusions' symptom-likeness are enumerated, and examples of pathological and non-pathological delusions are given. Section 2.2 describes typical psychiatric attitudes towards patients with pathological delusions, and illustrates that we do not treat and evaluate patients with pathological delusions as believing their delusions. In section 3.1, referring to Bortolotti, I will review doxasticism about delusions. I will then show that no argument can demonstrate doxasticism's superiority over anti-doxasticism. In section 3.2, the role of cognitive behavioral therapy for delusion is briefly reviewed, and its implications are discussed. In Section 4.1, Maher's theory of delusion, in which delusions are considered rational rather than irrational, is critically reviewed. In section 4.2, the relationship between pathological delusions and rationality is discussed. It is argued that pathological delusions partially conform to the norms of rationality because they are formed by mechanisms that, in ordinary circumstances, participate in the formation of rational mental states and actions.

2. Belief-likeness of Delusions

Bortolotti (2010) conceptualized beliefs' typical features in terms of three norms of rationality.

Epistemic rationality: A belief is formed based on sufficient evidence, and reformed when contradicting evidence appears.

Procedural rationality: A belief is consistent with other beliefs and other mental states.

Agential rationality: A belief is reflected in its owner's actions.

Beliefs are deemed rational if they conform to the norms of rationality described above. That is, the more closely a mental state conforms to those norms, the more belief-like it is. Bortolotti uses the term 'surface features' to refer to the profile of mental states; this profile is specified in terms of conformity or nonconformity to the norms of rationality (Bortolotti, 2012, p. 41). The 'surface features' thus specify only mental states' behavior, and not their causal structure. In this respect, delusions are not belief-like since they do not behave like typical beliefs. The following section will briefly review the behavior of delusions.

Delusions do not conform to the norms of epistemic rationality, as they are held without sufficient evidence, and are by definition incorrigible even in the face of compelling evidence to the contrary. Regarding delusional perception, which is sometimes observed among patients with schizophrenia, awkward and unusual significance is attributed to mundane situations. Schneider described a man who saw a dog sitting in front of a convent, and who was suddenly convinced that he had received a divine revelation (1959, p. 105). Some delusions are supported by prima facie evidence: for example, a patient who falsely holds that her food is poisoned may cite its strange taste as evidence. However, evidence patients cite in support of delusions is always insufficient to warrant the delusion's content. Patients with severe depression sometimes develop a delusion of poverty, and falsely hold that they are destitute although they have adequate savings. In such cases,

the delusion may persist though the patient is shown a financial record that indicates abundant wealth.

Second, most delusions lack procedural rationality; inconsistency with other beliefs held by the individual does not move the individual. Consider Cotard's delusion—the patient says that he is dead. It does not matter to the patient that he would be unable to say so if he were in fact dead (McKay and Ciolotti, 2007). In contrast, some patients devise various 'auxiliary hypotheses' to address inconsistencies between delusional content and their other beliefs. For example, a patient with de Clérambault syndrome (erotomania) who has the delusion that she is loved by a famous Hollywood actor may explain that she has received no contact from the actor because her family is interrupting their love (Kennedy et al., 2002). In these cases, however, the delusional system is not fully consistent with other beliefs, and the delusional system itself often contains inconsistencies.

Third, most delusions deviate from agential rationality. For instance, a man with Capgras delusion, who holds that his wife has been replaced by an impostor, may not ask the police to search for his 'real' wife, nor attempt to avoid the believed impostor (Young, 2000). Patients with chronic schizophrenia often exhibit what is termed 'double bookkeeping' (*doppelte Buchführung*) (Bleuler, 1911, p. 47). In the state of double bookkeeping, patients live both in the real and delusional world, without falling into confusion between them. Bleuler described a female patient who falsely thought the doctor in charge had been her former sweetheart, but acknowledged that he was her doctor when she received medical examination (*ibid.*).

The judgment that an individual has a delusion is not made based on neurophysiological monitoring such as electroencephalography or functional magnetic resonance imaging, but rather on interaction with that individual, through what Dennett terms 'intentional stance,' in which a person's behavior is explained in terms of intentional mental states.³ Generally, we find that a person holds a delusion that p through her utterance that p . This is because, by assuming that she believes that p , we are able to partly explain her sincere utterance that p . That is, the delusion that p is similar to the belief that p in that it causes a sincere utterance that p . In order for the intentional stance to allow discovery of delusions, delusions must at least have minimal belief-likeness.⁴

To summarize, delusions are minimally belief-like, but not very belief-like, mental states. From a functionalist point of view, epistemic, procedural, and agential norms of rationality *define* belief. If delusions are held not to conform to those norms, delusions are functionally not beliefs by definition. Some of anti-doxasticists about delusion, such as Schwitzgebel (2011), defend a 'sliding-scale' conception of mental states. They contend that questions about mental states' status as beliefs are not answerable in a categorical manner, and that intermediate mental states exist between beliefs and non-beliefs. Accordingly, delusions are considered 'not-quite-beliefs' (Tumulty 2011). This answer reflects the fact that delusions are minimally belief-like but not particularly belief-like.

The contention that delusions are mental states other than beliefs also reflects the fact that delusions are not particularly belief-like. Currie (2000) held that delusions, especially among patients with schizophrenia, are imaginings that patients misidentify as beliefs. Assuming that delusions are imaginings explains why delusions may be held without, or in the face of experiential evidence, and rarely correspond to actions. A person who believes he can fly may jump from a rooftop; a person who only imagines so will not. The fact that delusions often form internally consistent systems, which are inconsistent with the patient's other normal beliefs, may parallel the typical experience of reading or listening to a fictional story.

Some authors maintain that delusions are more similar to illusions (e.g. Hohwy and Rajan,

³ Regarding the notion of intentional stance, see (Dennett, 1987).

⁴ Bortolotti also notes this point. See (Bortolotti, 2010, p. 163).

2011; Jones, 2003). In contrast to beliefs, which belong to what Fodor termed the central systems of the brain, perception, which belongs to the peripheral systems, is modular. Perceptive systems are very efficient, but unresponsive to input from other systems in the brain (Fodor, 1983). For example, in the Muller-Lyer optical illusion, one line still seems longer than the other, even after we have checked that their lengths are equal. Delusions are thus similar to illusions inasmuch as they are not changed by counterevidence.

3. Pathologization of Delusions

Delusions have long been considered the central feature of psychosis (Jaspers, 1963b, p. 93). However, it is uncomfortable to generally consider delusions symptoms of illness. First, those who have delusions do not acknowledge that their delusions are symptoms of an illness. It is common for doctors and patients to discuss changes in the patient's symptoms. For example, a physician asks 'how is your cough?' and the patient answers 'it is getting better.' Psychiatrists also discuss symptoms such as depressive mood and anxiety with patients, and treatment plans may be better chosen based on shared understanding of the illness. The treatment of delusion, however, cannot proceed that way: if a psychiatrist asks 'how is your delusion?' the patient will not answer 'my delusion is getting worse.'

Although hallucinations are also characteristic of psychosis, patients may apprehend them as a symptom of their illness. By contrast, patients suffering from delusions do not understand that they are a symptom of their illness *by definition*.⁵ From the patient's perspective, they do not passively suffer from delusions, but are actively committed to what they consider their attitudes. A hallucination (i.e., a perception-like experience without an external source) does not disappear if the patient realizes that it is a hallucination. By contrast, a delusion ceases to be a delusion if the patient has the insight that it is a false belief caused by his illness—that is, if the patient realizes that his delusion is a delusion.

Second, though delusions are generally considered 'incurable false beliefs,' not all incurable false beliefs are symptoms of illness. It is not unusual for people to adhere to false beliefs, and most of those cases do not require psychiatric attention. In practice, psychiatrists naturally think that not all incurable false beliefs are symptoms of illness; however, the basis on which psychiatrists may distinguish symptomatic delusions is unclear. In section 2.1, I will review this basis; section 2.2 will then consider the implications of judging delusions to be symptoms of illness.

3.1. Symptom-likeness of Delusions

Jaspers proposed that the term *Wahn* ('delusion') should be specifically applied to phenomena accompanied by peculiar experiences and changes in personality, as typically seen among patients with schizophrenia (Jaspers, 1963b, p. 106). His terminology has not prevailed, however. Currently, the word 'delusion' is sometimes used to name incurable false beliefs in general; in other cases, it refers to incurable false beliefs that are caused by illness. In this paper, 'delusions' refers to any false beliefs that are firmly held even when the holder is confronted with clear counterevidence. Further, 'pathological delusions' shall refer to delusions that are symptoms of illness. The distinction is important, as not all delusions are pathological. Whether a given delusion is pathological may be judged only after surveying the overall picture of the subject's life history and

⁵ Lewis stressed that insight regarding the illness is '*ex hypothesi* impaired' in those with delusions (Lewis, 1934, p. 332).

present state. In the following, I will enumerate points that are important to such a judgment. Since a symptom is a symptom *of* some illness, information that suggests a given delusion is pathological nearly overlaps that which would suggest the holder of the delusion is sick.⁶ Psychiatry first diagnoses the patient's illness; in consideration of this diagnosis, her delusions are then judged as pathological.

Bizarre delusions are more symptom-like.

Delusions with bizarre content were considered indicative of schizophrenia until the fourth edition of the diagnostic and statistical manual of mental disorders (DSM-IV).⁷ For example, the delusion that a neighbor is intentionally generating ultralow-frequency sound to annoy you is not bizarre, since the delusion's content could be the case. By contrast, the delusion that 'an outside force has removed the patient's internal organs and replaced them with someone else's organs without leaving any wounds or scars' is more symptom-like, since its content is unrealistic and bizarre.⁸ Bizarre delusions are likely to be caused by abnormal and peculiar experiences; they therefore suggest some physical or mental dysfunction.⁹

Delusions accompanied by, or covariant with, other psychological or physiological disturbances are more symptom-like.

Delusions are more symptom-like when observed alongside hallucination, insomnia, loss of appetite, disorganized behavior, or similar, than when observed alone. Similarly, delusions that are observed only when the subject suffers from severe depressive mood, and not when the depressive mood is alleviated, are more symptom-like than those that persist irrespective of affective or behavioral disturbances.¹⁰ This is because the observation of multiple psychological and physiological disturbances in a single subject suggests that an underlying anatomical or physiological abnormality is causing their co-occurrence and covariance (Cohen, 1955).

Acute-onset delusions are more symptom-like than ones that develop gradually over a long period.

Jaspers emphasized that delusions that emerge 'as a break in the normal life-curve' rather than 'as a

⁶ There are cases in which these two do not match. Not all delusions held by patients with psychiatric illness are symptomatic. Imagine a patient with schizophrenia, who has held racist beliefs since long before her schizophrenia's onset. Her beliefs are strong and deviant enough to satisfy the definition of delusion. It is difficult to regard her racism as a symptom of her schizophrenia, however, since no relationship exists between her having racist beliefs and her having schizophrenia.

⁷ See APA (2000, p. 312). As disturbances of self-experience (Ich-störung), which Schneider considered specific to schizophrenia, are not a *sui generis* category of psychiatric symptoms in the DSM, they are understood as a subtype of delusions (Cermolacce, Sass, & Parnas, 2010).

⁸ This example is cited from APA (2013, p. 87).

⁹ McKay, Coltheart & Langdon indicate that bizarre delusions are caused by abnormal experiences we never encounter in daily circumstances (McKay, Langdon, & Coltheart, 2005).

¹⁰ DSM diagnostic criteria defines most mental disorders based on the co-occurrence of multiple psychological and physiological disturbances. For instance, to diagnose major depressive disorder, five or more of the following must be present: depressive mood or irritability, loss of interest, change in appetite, sleep disturbances, lack of energy, psychomotor retardation or agitation, diminished ability to concentrate, feeling of guilt or worthlessness, and suicidal ideation (APA, 2013, p. 160f). Alone, each of the above is a discomfort not uncommon in daily living; multiple disturbances' coincidence in one subject indicates illness.

part of the continuum of personality development,' signal by their abruptness a pathological process (Jaspers, 1963b, p. 98). The multiple axes diagnostic system, which was used until the fourth edition of the DSM (APA, 2000, p. 27-29), reflects the idea that acute alterations in behavior and mentality are more illness-like than chronic ones. That system registers acute and more illness-like mental disorders such as schizophrenia and mood disorders in the first axis, while chronic or lifelong ones, such as mental retardation and personality disorders, are registered in the second axis. Two cases will illustrate the difference. In the first, George, who was naturally suspicious, believed with gradually increasing strength that his neighbors were hostile towards him over the course of ten years of friction between his neighbors and himself, and finally developed the delusion that an old man living next to him had designs on his estate. In the second, Anna who had historically been sociable, suddenly developed the delusion at age 25 that an old man living next to her was wiretapping her conversation. Anna's delusion is more symptom-like than George's is.

Delusions accompanied by decreased levels of functioning are more symptom-like.

Some patients with delusions are able to care for themselves, while others are not. Delusions are more symptom-like in the latter cases, since the decrease in functioning suggests an underlying cognitive and/or volitional dysfunction that is symptomatic of illness.¹¹ Decreases in levels of functioning must be greater than is expected from any interpersonal problems attributable to the existence of the delusions themselves.

Delusions that emerge after the onset of organic diseases known to be associated with delusions are more symptom-like.

Capgras delusions are known to be associated with right cerebral hemispheric damage (Coltheart, 2007); hence, if a person develops Capgras delusion on experiencing a right cerebral infarction, there is a prima facie reason to consider that the delusion is a symptom of the infarction. Readers may wonder that this criterion alone is privileged, since this defines a delusion as symptomatic. However, the association between organic abnormality and psychiatric symptoms is only statistical. Numerous patients with coarse brain abnormality exhibit no or few psychiatric symptoms, and conversely, most patients with delusions show no detectable brain abnormality. Hence, even if delusion and brain abnormality are found in the same patient, it is premature to conclude that the delusion is symptomatic of the brain abnormality by that concurrence alone.

Understandable delusions are less symptom-like.

Fish noted that a person of deviant personality may face difficulty because of her personality, may gradually form wrong-headed or overvalued ideas thereby, and that those overvalued ideas may become so persistent and so divergent that they finally fit the definition of delusion. Fish insisted that we should accommodate the 'concept of delusional states which are not due to the functional psychoses' (1967, pp. 11-12). He provides an example: '[a]n insecure suspicious man with an unstable childhood background may develop ideas of jealousy about his wife, and as the stress of the marital situation continues, the ideas develop into delusions of marital infidelity.' (Ibid.) Such delusions are less symptom-like, since we are able to understand the transition of the patient's mind, and why he finally developed delusions.

¹¹ This is one of the differentiating features between delusional disorder and schizophrenia. In the former, '[a]part from the impact of the delusion(s) or its ramifications, functioning is not markedly impaired' (APA, 2013, p. 90), whereas in the latter, 'level of functioning in one or more major areas, such as work, interpersonal relations, or self-care, is markedly below the level achieved prior to the onset' (Ibid., p. 99), which is associated with volitional or cognitive impairment (Ibid., p. 100-101).

Here, I would like to explain the notion of genetic understandability, as introduced by Jaspers. Genetic understanding signifies ‘perceiving the meaning of psychic connections and the emergence of one psychic phenomenon from another’ (Jaspers, 1963b, p.27). The transitions of psychical states are understandable when we are able to psychically relive them in ourselves. Jaspers insists that delusions found among patients with schizophrenia are not genetically understandable.

Rationality is a sufficient, but not necessary, condition for one’s mental states or behaviors’ genetic understandability. Mental states are genetically understandable when their developmental trajectories may occur under normal life circumstances. To be weak-willed, narrow of focus, and self-deceptive is human, and we may empathize with those irrationalities. We apply norms of rationality, and attribute irrationality, to others as far as we are able to understand them. The principle that guides genetic understandability is the principle of humanity, which asks the question ‘would a normal person would do that?’ (Grandy, 1973). Whereas irrationality is a deviation from rationality, un-understandability is a deviation from normality. A lack of genetic understandability is a sign of pathology, since it indicates breakdown in the neurological functioning that mediates daily psychical life.

Cooper considers understanding as a channel of recognition that utilizes one’s own mental processes to simulate those of another person (2007, pp. 67-82). One’s life history is a ‘scaffold’ on which we may simulate another person’s mind. A person is genetically understandable when her actual behavior and psychical transition is a possible result in our simulation. This is parallel to checking if a person has a fever by putting your forehead on hers: we examine whether a person’s mind is normal by measuring it against our own. Such examination has various limitations. Judgments of normality may vary between examiners, for instance: when the examiner and examinee do not share a cultural or socio-economic background, the simulation becomes more difficult and we become biased towards incomprehensibility.¹² Nonetheless, if we keep these limitations in mind, simulation is still a useful means to probe others’ minds.

Delusions (beliefs) shared by other members of the person's culture or subculture are less symptom-like.

The DSM states that any beliefs that are ‘ordinarily accepted by other members of the person’s culture or subculture’ are not delusions, even if they are false and firmly held.¹³ This exclusion criterion’s intention is apparent if we consider that beliefs shared among one community may be regarded as false or odd by people who belong to another community. This is a cultural or social phenomenon, and medical explanation is out of place. Shared ‘delusions’ usually have external causes. When a mass outbreak of febrile illness is observed, we estimate that the illness is infectious. Similarly, when false beliefs are shared among a group of people, we estimate that they are spread by testimony. By contrast, when a person holds a false belief the content of which is idiosyncratic, it is more likely to have internal causes, such as illness. Hence, even when a false belief is spread among a group of people, it is symptom-like with regard to its originator. If a new religion’s adherents promote strange or unacceptable beliefs, the founder is more likely to be sick than the followers.¹⁴

¹² For example: in the United States, where white doctors outnumber black or Hispanic ones, black and Hispanic patients with bipolar disorder are at a higher risk than whites of misdiagnosis as schizophrenic (Mukherjee, Shukla, Woodle, Rosen, & Olarte, 1983).

¹³ See footnote 1.

¹⁴ Should it be considered that all founders of new religions are mentally ill? The answer seems to be ‘no.’ Even if religious beliefs cannot be empirically justified, they may be abductively conceived, since their supposition gives a harmonic and integrative meaning to life, just as the supposition of

Delusions are pathological not because they are profoundly irrational, but because they are symptoms of illness. Delusions seem as more symptom-like when they seem to be caused by illness, and when they seem unlikely to have psychological or social causes. A delusion's status as pathological implies that it is the effect of certain causes. In this regard, the notion of symptom-likeness is distinguished from the notion of belief-likeness, which captures delusions' 'superficial' features.

A given delusion is chiefly judged pathological not by virtue of its internal characteristics, but rather in consideration of surrounding collateral information: mental disorder is diagnosed based on the combination and timeline of multiple mental and physiological disturbances, rather than the existence of a single abnormality. The DSM's definition of mental disorders reflects this. For example, co-occurring symptoms such as hallucination must be present in addition to delusion in order to diagnose schizophrenia, and those symptoms must both persist for more than six months and be accompanied by decreases in levels of functioning (APA, 2013, p. 99).

It has long been debated whether chronic delusions are symptoms of illness if they are without bizarre content, unaccompanied by other psychological or physiological abnormality or impairment of functioning, but not amenable to simple understanding.¹⁵ Currently, this problem is left standing, and such delusions are lumped together as 'delusional disorders.' More schizophrenia-like conditions (formerly termed paraphrenia), and more personality-disorder-like conditions (formerly termed paranoia) are included together in this category.

Jaspers reviewed the details of several cases that exhibited delusions of jealousy (Othello syndrome). He argued that some seemed the result of pathological processes (Prozeß) inasmuch as they developed over a short period in the patients' middle age without obvious external causes, and were accompanied by subtle psychological disturbances such as hypomania and delusions other than of jealousy. He considered that some other delusions are understandable as the results of the development (Entwicklung) of deviated personalities, given that they are typically observed among people who are naturally suspicious or paranoid, that the delusions form in response to external events throughout the patients' lifetime, and that they develop without obvious collateral psychological disturbances (Jaspers, 1963a). Finally, he illustrated intermediate cases of delusion, and emphasized that illnesses cannot be strictly separated from deviations of personality.

Schneider once asserted that a clear dividing line exists between illness and non-illness (Schneider, 1959, p. 1). By contrast, Lilienfeld and Marino proposed that such a dichotomy is not sustained, and that every clinical condition may be located on a continuum between illness and non-illness (Lilienfeld and Marino, 1995). Regarding psychotic disorders such as schizophrenia, it has gradually become acknowledged that a continuous transition exists from normality to psychosis (Strauss, 1969; van Os et al., 2000). Hence, we cannot simply assume that a given psychiatric condition is either an illness or a non-illness. Nonetheless, clear and evident cases of illness and of non-illness do exist.

Mental states exist, which satisfy the definition of delusion, but which are difficult to regard as symptoms of illness. The word 'delusion' is as frequently used in political contexts as in the

the point at infinity deepens our understanding of geometry. Sims proposes that newly conceived religious beliefs are distinguished from religious delusions on the ground that the latter conform to typical symptoms of known psychiatric illness, are accompanied by other recognizable symptoms of mental illness in other areas of life, and derange the subject's lifestyle, rather than enriching personal experience (Sims, 1992, 2008, p. 140).

¹⁵ This topic was actively discussed in German psychiatry early in the 20th century, and is named *Die Paranoiafrage* ('the paranoia problem') by Lange (1927).

psychiatric context. When we claim our opponent is ‘deluded’ during political controversy, we mean (suspending the validity of the statement) that she firmly holds a false belief because of her narrow-sightedness and persistence, and her error cannot be corrected. If the criticism is warranted, we must admit that she is deluded, but we do not mean by this that she suffers from some illness.¹⁶

Self-deception sometimes satisfies the definition of delusion (McKay, Langdon, & Coltheart, 2005). When a delusion develops due to obvious motivational influences, it is difficult to consider it a symptom of illness. Imagine a man whose girlfriend had announced to him that their relationship was over. Since he was unable to accept that she had ceased to love him, he began to stalk her, believing that she still loved him, and that she was acting coldly toward him in order to challenge his fidelity. Such a case satisfies the definition of delusional disorder, however, the patient requires not medication but juridical intervention (or counseling). Such cases rarely attract psychiatric attention, except when they result in crimes, and psychiatric tests are subsequently requested. In the past, patients with schizophrenia were referred to as ‘the schizophrenic.’ This term’s political correctness was criticized, since it implied that the patients are inseparable from their illness, and that the patients themselves are split-minded. By contrast, referring to the man described above as ‘a patient suffering from delusional disorder’ is simply excessive pathologization.

3.2. The Consequences of Pathologization

Psychiatric diagnosis is made based on the thorough examination of the patient’s life and family history, present state examination, living environment, and so on. The border between understandable responses to external events and pathological alteration of the mind is often unclear. Psychiatrists may agree whether a given case is pathological, yet diverge regarding other cases. Nevertheless, psychiatrists do diagnose mental illness. Diagnosis is a clinical decision to differentiate illness from non-illness, and one type of illness from another, even if no natural boundaries exist. This is sometimes termed ‘pathologization’ or ‘medicalization.’¹⁷

In the following, I will concentrate on delusions that are judged the symptoms of illness. Our attitudes toward pathological delusion are very different from our attitudes toward mundane irrational beliefs. In the following, I will identify four distinctive features of attitudes towards specifically pathological delusions.¹⁸

Involuntary hospitalizations and treatments.

In principle, no medical intervention is justified without the patient’s informed consent. The patient’s sense of value is not the same as the doctor’s, and patients are not forced to receive treatments that are beneficial from a medical point of view. This remains true when the disagreement between the patient and doctor stems from false beliefs on the part of the patient regarding the nature of their illness or

¹⁶ Although pathological delusions with political themes are a common type of delusion, we should remember that psychiatry was abused by the former Soviet Union as a tool of political repression through the involuntary hospitalization of political dissidents with the diagnosis of ‘sluggish schizophrenia’ (Van Voren, 2010).

¹⁷ The words ‘pathologization’ and ‘medicalization’ are often used to refer to a change of social climate, in which problems that had formerly been treated outside medicine are deemed medical. In this paper, however, I use them at the level of the individual, in which process a person’s complaint is interpreted in the context of medicine, and is considered a symptom of illness.

¹⁸ Fulford points out that one of psychiatry’s distinctive features is the existence of involuntary hospitalization and treatment. He indicates that, in addition to the insanity defense in criminal justice, these features bear on the problem of pathological delusions. Regarding this point, see Fulford (1989, pp. 186-243).

medical treatment. By contrast, when patients refuse psychiatric treatment based on pathological delusions, it is sometimes justified for psychiatrists to force those patients' hospitalization or treatment, based on paternalistic concern.

This divergence in justification may be explained by reference to the nature of pathological delusion: Pathological delusions that cause a patient to refuse medical treatment are precisely the symptoms of illness for which treatment is needed. In such cases, the psychiatrist should not regard the patient's refusal of medical intervention as a true decision.¹⁹ If the patient were not ill, he would agree that to develop an illness that makes one so delusional as to refuse medical intervention *is* indeed grounds for medical intervention. Some patients who receive involuntary treatment, after recovering, regain the insight that they were in an abnormal mental state that impeded their judgment regarding medical treatment.

Medical treatments.

If a delusion is a symptom of illness, we must treat the illness in order to correct the delusion. The mainstream of treatment is physical rather than psychological, including good rest, separation from stimulants, psychotropic medication, and sometimes electro-convulsive therapy. Patients in an acute psychotic state who have persecutory delusions do not require discussion of their delusion's content, but rather adequate rest and antipsychotic medication. Likewise, patients with Alzheimer's disease who have delusions that their belongings have been stolen do not require persuasion, but rather time in which they may forget their delusions, which themselves are caused by their forgetfulness.

Negation of illocutionary forces.

Pathological delusions become problematic when their holders act on them. Delusion-based actions are treated differently depending on whether they are speech acts. First, consider the treatment of delusion-based speech acts. Imagine a patient with Capgras delusion, who states that the woman living with him is not his wife but a disguised CIA spy. Mental health professionals (and members of his family who are familiar with the situation) pay no serious attention to his utterance, since they recognize that arguing against the delusions makes matters worse. Similarly, if a patient with schizophrenia who has the delusion of grandeur that she is a foreign king's love-child promises us that 'I will give you a million dollars next week,' we do not become angry with or accuse her on the event of her failure to bring us the million dollars, since we do not regard her promise as serious.

In ordinary settings, too, we often disregard the utterances of those who repeatedly claim what seems to be false or unwarranted. In such cases, however, we evaluate the person negatively, and consider him at fault. By contrast, when similar utterances originate from pathological delusions, we not only consider them as not given in earnest, but also refrain from negative evaluation.

To formally describe our attitude towards delusion-based speech acts, we consider them as void illocutionary acts and negate their illocutionary force. Assertions and promises are types of illocutionary acts. Assertion's effect is 'to commit the speaker (in varying degrees) to something's

¹⁹ Involuntary hospitalization and treatment is justified for patients with mental retardation or dementia, since these patients do not have the general cognitive capacity to understand their circumstances and give true consent. By contrast, Kress notes that it is sometimes difficult to identify cognitive impairment in patients with delusion (2004). He considers that involuntary hospitalization and treatment is justified in such cases, since these patients lack the insight to realize that they suffer from illnesses that require medical treatment. This piece of information is critical when deciding on treatment plans. Patients with pathological delusions are unable to give *informed* consent, because of their illness.

being the case, to the truth of the expressed proposition' (Searle, 1979, p. 12); promising's effect is 'to commit the speaker (again in varying degrees) to some future course of action' (Ibid., p. 14). The assertion that *p* therefore renders the utterer accusable if it is not the case that *p*. A promise to *q* obliges the utterer to *q*, and exposes the utterer to blame if the promise is not kept. To negate speech acts' illocutionary force is to deny that those acts have their usual effects in the present situation.²⁰ Deluded patients lose part of their ability to issue effective illocution; however, the loss protects them from unwanted and unnecessary ill consequences.

Berrios contends that delusions are simply 'empty speech acts' (Berrios, 1991, p. 8). I consider that to regard delusion itself as a type of speech act is a category mistake. If, however, he in fact intended that speech acts caused by pathological delusions are empty, I perfectly agree with him.

Absent or diminished criminal responsibility.

Pathological delusions sometimes result in acts in other modes than speech. Most are avoidant behaviors; e.g., escaping from a man whom the patient wrongly considers to be an agent of a hostile organization. Though less frequent, pathological delusions may cause patients to take actions that break social norms (Buchanan & Wessely, 1998). Unlike speech acts, behavioral acts (for instance, physical violence) cannot be managed simply by varying their significance. In modern jurisprudence, it is generally agreed that patients are less or not criminally responsible for illegal acts committed due to pathological delusions (Rosner, 2000, pp. 213-5). For example, the Model Penal Code of the United States writes:

A person is not responsible for criminal conduct if at the time of such conduct as a result of mental disease or defect he lacks substantial capacity either to appreciate the criminality [wrongfulness] of his conduct or to conform his conduct to the requirements of law (The American Law Institute, 1962, p. 66).

Patients whose pathological delusions cause criminal conduct are more overwhelmingly dominated by their pathology than those whose delusion-based acts are confined to speech. That pathological delusions result in criminal conduct is itself among the clearest evidence that the actor lacks part or all of the 'substantial capacity either to appreciate the criminality [wrongfulness] of his conduct or to conform his conduct to the requirements of law.' Of course, other features of criminal conduct, such as premeditation, rationality, consistency, and the existence of self-protective behavior are also considered to determine the degree of criminal responsibility.²¹

Prima facie, illegal acts that result from pathological delusions are comparable to those that result from false beliefs. Contrast the following two cases: John hit and injured his friend who approached him at night in the street, because he mistook his friend for a burglar, and tried to defend himself. This is called 'mistaken self-defense.' Paul hit and injured his wife at his house because he had the Capgras delusion that the woman living with him is not his wife, but rather an imposter disguised as his wife. These two cases seem essentially the same.

In fact, their judicial treatment is completely different. John's sentence is reduced, because it is judged that he injured his friend not deliberately but negligently (Dubber and Hörnle, 2014, p. 414-5). Regarding Paul, by contrast, the degree of criminal responsibility is the point at issue. If it is judged that he lacked criminal responsibility, he cannot be charged, regardless of whether he acted

²⁰ This is reflected in the judicial convention that contracts made by incompetent parties are deemed void. Regarding this point, see Rosner (2000, pp.314-5).

²¹ On this point, I referred to National Institute of Mental Health (2009).

deliberately or negligently.

The difference between attitudes towards ordinary irrational beliefs and towards pathological delusions.

Ascribing beliefs to others enables us to explain and predict their actions. This effect is diminished, however, when the beliefs ascribed do not conform to the norms of rationality. Nonetheless, in such cases, we ascribe beliefs with the intention to treat and evaluate the owner of those beliefs under the norms of rationality.²² We ask a person who has a belief why they believe it, point out its falsehood and request that the person correct it, and praise their wisdom or criticize their foolishness. Ascribing a belief imposes stricter norms on the believer than ascribing an imagining to them. In this way, we sometimes excuse ourselves by saying ‘this is just a fancy’ or similar, to avoid the strict norms accompanied by the ascription of belief.

A person is responsible for her behaviors that are caused by her beliefs, since her beliefs partly constitute her agency. By contrast, a person is not responsible for behaviors that are caused by an illness, because the illness is not constitutive of her agency. Behaviors caused by an illness are, in a sense, not the person’s behaviors, but accidents that befell her. If delusions are symptoms of illness just as a cough is a symptom of pneumonia and blood discharge is a symptom of a gastric ulcer, delusions are something patients passively suffer from, and patients are exempt from responsibility for their consequences. In ordinary circumstances, irrational beliefs are negatively evaluated. Pathological delusions, however, are located outside the realm of the rational or irrational, since they are natural accidents comparable to a flood or lightning strike. Let what is outside the realm of the rational and irrational be termed ‘arational,’ by analogy with ‘amoral’—what is outside the realm of the moral.²³ This terminology recognizes pathological delusions as arational rather than irrational.

Patients who are diagnosed as suffering from illness, and whose delusion is judged a symptom of that illness, escape from the negative evaluation that they are irrational. Pathological delusions, in some ways, *conform* to the norms of rationality, and therefore they are partly belief-like. It is apparent that considering the delusion a belief enables one to *predict and explain* its holder’s behavior to the extent that the delusion conforms to the norms of rationality. What is inappropriate is to *apply* the norms of rationality to pathological delusions, and to *treat and evaluate* patients with delusions as we treat and evaluate those who have beliefs of the same content. People who have non-pathological delusions are considered foolish. People who have pathological delusions are victims of illness. Reflecting this variation in significance, psychiatric practice regarding pathological delusions is very different from its treatment of mundane irrational beliefs.

Bayne, who is a doxasticist regarding delusion, writes as follows (2010, p. 334):

If delusions are beliefs, then we can quite properly hold those who are delusional to account for failing to live up to the norms of belief. For example, we can criticize the delusional individual for holding to be true something that is inconsistent with other things that he or she believes. More generally, we can criticize those who are delusional for not ‘caring’ about the truth of their delusions—for not treating them as things that they do indeed hold true. Of course, such ‘criticism’ might not be warranted from a moral or clinical perspective—my point here is only that it is ‘theoretically’ warranted. If, on the other hand, delusions are not beliefs,

²² This way of understanding of belief ascription is also seen in Bayne. He considers belief as a kind of commitment of the believer, and stress the normative aspect of belief ascription (Bayne, 2010).

²³ Hursthouse uses the word ‘arational’ similarly in (1991).

then the norms of belief do not apply to them, and it would be inappropriate to subject those who are delusional to the criticisms just outlined.

Bayne's intention is not completely clear in claiming that criticizing patients with pathological delusions may be 'theoretically' warranted. It is crucial, however, that while we may apply the norms of rationality to daily irrational beliefs, we do not apply them to pathological delusions. We should say in the *indicative* mood what Bayne has said in the *subjunctive* mood: It is inappropriate to criticize those who have pathological delusions for failing to live up to the norms of belief.

Incidentally, patients are often disinclined to receive merciful treatment; instead, they may defend their delusions by citing evidence. For instance, they may say 'Doctor, though you may think I am mentally ill, this is a fact!' Psychiatric patients often most strongly resist pathologization; here we again confront the paradox of delusion stated at the beginning of this section. Pathological delusion is a symptom of illness for which the possibility of the patient's acknowledging it as a symptom is excluded *by definition*. Pathologization of delusion is therefore necessarily performed *in spite of* the patient's opinion.

Pathologization of delusions *reduces* the patient's total irrationality, since the delusions are removed from the list of things associated with the patient the rationality of which is evaluated. In this respect, pathologization of delusions coincides with the principle of charity, as far as it is understood as the requirement that we should so interpret others as to maximize their rationality (Blackburn, 1994, p. 62).

4. Are Pathological Delusions Beliefs?

This section discusses whether pathological delusions are beliefs with reference to the discussion in previous sections. I will cite an argument by Bortolotti, who has centrally contributed to the development of doxasticism about delusion (2010, 2012).

4.1. Psychiatric Practice and Doxasticism about Pathological Delusions

Bortolotti defends doxasticism about pathological delusion, attacking arguments that derive anti-doxasticism about pathological delusions from the observation that they do not conform to the norms of rationality (2010). Her argument has two steps.

In the first step, Bortolotti emphasizes that, in ordinary circumstances, mental states that are regarded as beliefs sometimes fail to conform to the epistemic, procedural, and agential norms of rationality. Consider several examples from her collection: Studies examining human irrationality have found that the pattern of human preferences often contains inconsistencies (Ibid., p. 79f). Those who are highly educated and of a scientific worldview often have superstitious beliefs that contradict their scientific beliefs (Ibid., p. 85). People tend to prematurely conclude that a causal relationship exists between two events that occurred consecutively (Ibid., p. 140f). False and groundless beliefs about racial discrimination are widespread (Ibid., p. 149f). Hypocrisy is prevalent, and people's behavior often does not correspond to their verbally expressed attitudes (Ibid., p. 172f). Most people have what is termed 'self-serving bias,' and remember good things about themselves disproportionately more often than bad things (Ibid., p. 146f). We sometimes fail to realize the true reason of our actions: ingenious experiments have shown that we sometimes unintentionally give false reasons for our actions (Ibid., p. 198f). Based on an ample number of examples, Bortolotti proposes that the three norms of rationality are not constraints, the violation of which excludes a mental state from beliefhood; rather, they are criteria that determine if a belief is rational (Ibid., p.

156).

In the second step, she notes that the difference between mundane irrational beliefs and pathological delusions is a matter of degree, with respect to their irrationality. Combining these two steps, she concludes that there is no reason to reject the doxastic conception of delusions, inasmuch as the definition of delusion refers exclusively to delusions' surface features (Ibid., p. 259).

The above argument aims to 'challenge the existence of a necessary link between rationality and belief ascription' (Bortolotti, 2012, p. 45). The above argument therefore defends doxasticism as a possible option. She writes; 'I am not looking for a victory of the doxastic account over the competing perceptual account—I shall settle for a tie' (Ibid., p. 41). However, doxasticists cannot be satisfied with her explanation, since it is not yet clear why they should insist that pathological delusions are *beliefs* rather than other mental states, such as imaginations or illusions. Such arguments remain to be supplied.

Bortolotti states that belief ascription should make intelligible the past behavior of those who are ascribed beliefs, and make their future behavior predictable (Bortolotti, 2010, pp. 99-102). This proposal does not usefully promote doxasticism, however. Ascription of a belief to a subject makes her more intelligible if the mental state so ascribed behaves in a sufficiently belief-like way. Since pathological delusions are at least minimally belief-like, regarding them as beliefs may partly explain or predict the patient's behavior.²⁴ However, pathological delusions are not only somewhat belief-like, but also somewhat imagination-like, somewhat illusion-like, and so on. Hence, the argument goes on: considering pathological delusions as imaginations or illusions similarly makes the patient more intelligible and predictable. That is, if Bortolotti may with justification regard pathological delusions as beliefs, we may with similar justification regard them as imaginations and illusions. While we concentrate on pathological delusions' superficial features, doxasticism cannot overcome anti-doxasticism.

Bortolotti has yet to demonstrate doxasticism's superiority over anti-doxasticism. However, it seems that doxasticists may effectively construct such a demonstration by slightly modifying Bortolotti's argument. The argument consists of three parts. First, the doxasticist insists that beliefs are mental states to which we *apply* the norms of rationality, and which we treat and evaluate according to those norms. Second, ordinary irrational beliefs are still beliefs, since we apply these norms to them, and we in fact treat and evaluate them as typical beliefs even if they fail to conform to the norms. Third, the doxasticist claims that norms of rationality also apply to pathological delusions, since the difference between pathological delusions and ordinary irrational beliefs is one of degree, with respect to their nonconformity to the norms.

Fundamental defects exist in the third step of this argument, however. First, as stated in section 2.2, norms of rationality are not applied to pathological delusions in psychiatric practice, and we do not treat and evaluate patients with pathological delusions as we treat and evaluate those who believe the same content. There *is* a difference between our attitudes towards ordinary irrational beliefs and towards pathological delusions. We *do* apply the norms of rationality to ordinary irrational beliefs, even if they do not entirely conform to those norms, and we *do not* apply the norms of rationality to pathological delusions, even if they do partly conform.

Second, and as is explained in section 2.1, the difference between our attitudes towards ordinary irrational beliefs and towards pathological delusions is not based on varying degrees of irrationality, but rather on varying degrees of symptom-likeness. Delusions are pathological, not because they are extremely irrational, but because they are symptoms of illness.

This is not a refutation of doxasticism; however, since the argument intended to demonstrate

²⁴ It seems that this is a basis of our plain understanding that delusions are 'incurable false beliefs.'

doxasticism is unsuccessful, we must go back to the start. For a doxasticist to complete his position, he must establish criteria that classify some mental states as beliefs, and then argue that pathological delusions are beliefs (rather than another kind of mental state) according to his criteria.

Bortolotti defends doxasticism about pathological delusions by exclusively focusing on delusions' irrationality. Yet, pathological delusions' key feature is that, in contrast to other irrational mental states, such as weakness of will and self-deception, they are considered symptoms of illness. That a delusion is pathological implies its etiology: it is caused by some illness. If we confine our attention to delusions' surface features, we overlook problems that arise specifically regarding pathological delusions.

4.2. Doxasticism and Cognitive Behavioral Therapy for Psychosis

The recent success of cognitive behavioral therapy (CBT) in treating psychosis is sometimes cited as corroborating doxasticism about delusion (Bayne & Pacherie, 2005, p. 185; Bortolotti, 2010, pp. 116-7; 2012, p. 41-2). CBT is a type of psychotherapy that was first developed to treat anxiety disorders and depression. CBT was later applied to a broader range of, and to more severe, mental disorders. Recently, CBT has also been used to treat patients with psychosis, such as schizophrenia, and evidence of its effectiveness is gradually accumulating (Morrison et al., 2014). The National Institute of Clinical Excellence (NICE), which issues guidelines for medical and healthcare practice in the United Kingdom, recommends administering CBT to patients with schizophrenia (2014).

Since psychotherapy treats patients thorough verbal interaction, working psychotherapeutically with patients to remove their delusions constitutes treating patients as believing the content of their delusions. In this regard, psychotherapeutic practice contrasts with practice based on the medical model. Whereas the latter locates patients in the context of illness and symptoms, the former locates the patients' difficulties in the 'realm of everyday experience' (Beck, 1976, p. 20). This critical feature of CBT, termed 'normalizing,' is diametrically opposed to pathologization. In CBT for schizophrenia, delusions and hallucinations are not regarded as categorically different from normal beliefs and perceptions. Rather, the continuity between normal perception, illusion, and hallucination is emphasized, and between genuine belief, overvalued idea, and delusion. In CBT sessions for treating schizophrenia, the therapist may explain to the patient 'considerable number of people without obvious mental illness reported having experienced hallucination. It is known that people who are deprived of sleep or who experience extremely stressful circumstances tend to have hallucinations.' Also, 'different people believe different things, you know, lots of people believe in ghosts and telepathy' (Kington & Turkington, 1995, pp. 141-143). These considerations are offered to indicate that delusions and hallucinations are *normal*. Normalizing hallucinations and delusions encourages patients, by suggesting that they are not helpless victims of catastrophic illness, and that they have the means and the responsibility to cope with their situation. CBT's recommendation for the treatment of psychosis may therefore seem decisive evidence that we should treat patients' pathological delusions as beliefs.

We must acknowledge that interventions based on the medical model are, although suitable for acute illness, insufficient for management of chronic illness. Since most psychiatric illness is chronic, treatment of patients with psychiatric illness should include not only interventions based on the medical model, but also psycho-social support through psychotherapy and social work. Two major considerations are required, however, before doxasticism about pathological delusions may be defended based on CBT's success with psychosis.

First, we must distinguish between CBT for *psychosis* and CBT for *psychotic symptoms*. The latter is a constituent part of the former. In addition to collaborative work targeting hallucinations and delusions, CBT for psychosis includes psychological interventions targeting depressive mood

and anxiety of patients with psychosis, assisting patients with daily tasks, and promotion of the patient's adherence to pharmacotherapy. The NICE guidelines recommend these be delivered as a package. It has long been thought that psychotherapeutic and rehabilitational interventions significantly ameliorate negative symptoms, such as flattened affect and social withdrawal, and cognitive dysfunction among patients with psychosis. Nonetheless, pharmacotherapy is still centrally important to treating psychotic symptoms such as hallucinations and delusions. Pharmacotherapy's effects are well established. CBT for delusion, then, is an auxiliary treatment, added when pharmacotherapy is insufficient, or a challenging alternative to pharmacotherapy to be used alone when the latter is impossible.

Second, the multiplicity of available definitions causes problems. If we take seriously delusions' definition as '*incorrigible* false beliefs,' whatever is treatable by CBT is not delusion by definition. Of course, CBT therapists are not attempting the logically impossible; they simply adopt a different definition of 'delusion' than does this paper. In CBT, delusions are located on a continuum ranged over the dimension of the degree of conviction, from vague suspicion to absolute confidence. Regarding CBT, therefore, false ideas that are not incorrigible convictions are also included in delusions broadly considered. Moreover, delusion is conceptualized as a multi-dimensional phenomenon, which includes a range not only of conviction, but also of preoccupation and distress (Peters, Joseph, & Garety, 1999). Hence, when we hear that 'delusions are treatable with CBT,' we should bear in mind that the 'delusions' mentioned are defined using this broadened sense of the term. Additionally, CBT's main aim regarding delusion is not to cause patients to disavow their delusions, but to lessen their preoccupation with, and alleviate distress caused by, their delusions. It is in consideration of this aim that therapists sometimes need to 'work within delusions' (Johns, Jolley, Keen, & Peters, 2014).

Bortolotti emphasizes the continuity between ordinary irrational beliefs and pathological delusions. In doing so, her technique is strikingly similar to that of normalization in CBT for psychosis. If this analogy is appropriate, Bortolotti's oversight is evident: her argument fails to consider that, in psychiatric practice, we *pathologize* delusions more often than we *normalize* them. Currently, it is sometimes said that psychiatry over-pathologizes the human psyche, converting distressing but normal psychological disturbances into symptoms of mental illness (Frances, 2013). Over-pathologization is more of a concern in mild mental illness, such as non-psychotic depression, anxiety disorders, child temper, mild developmental disorders, etc. Regarding psychotic disorders, however, the concern of over-pathologization is groundless.

5. Delusions and Rationality

Pathological delusions are symptoms of illness. If this consideration is taken seriously, that delusions even partly conform to the norms of rationality is mysterious. This section discusses the relationship between pathological delusions and rationality. In section 4.1, I will critically review Maher's theory of delusions, in which delusions are thought of as rational rather than irrational. In section 4.2, explanations of pathological delusions' partial conformity to the norms of rationality is discussed, focusing on pathological delusions' developmental process.

5.1. Maher's One-Factor Theory of Delusion

Von Domarus hypothesized that delusions arise from impaired inferential capacities (1944). Experiential evidence did not support this hypothesis, however (Williams, 1964). In contradiction to this, Maher insisted that intense abnormal experience is the necessary and sufficient condition for pathological delusions' development, and that patients may become deluded even if their inferential

capacities are normal (Maher, 1974; 1988; 1999; 2005). He held that patients reach wrong conclusion not because they wrongly infer from correct premises, but because they correctly infer from wrong premises. I agree that there are cases in which abnormal experience is the sole cause of pathological delusion; however, I would like to attribute an entirely different significance to this claim.

Maher held that abnormal experience is the culprit of pathological delusion. Delusion is a kind of hypothesis, which the patient advances in order to make sense of his or her experience, just as scientists form unique hypotheses in order to explain unusual observations. Maher states that delusions are ‘rational, given the intensity of the experiences that they are developed to explain’ (1974, p. 105). Maher considered that delusions are incorrigible because they are ‘the best’ explanations patients are able to advance for their experiences. We cannot cause patients to abandon their delusions, just as the Roman inquisitors could not cause Galileo to abandon his heliocentric theory.

Maher’s theory coincides with mine to the extent that both consider patients with pathological delusions *not irrational*. Beyond this consensus, however, Maher and I diverge. As discussed in section 2, a patient is redeemed from irrationality if her delusion is a symptom of illness, since her symptom is *arational* (that is, it is outside the domain to which evaluations based on rationality apply). By contrast, Maher held that the patients are *rational* given their intense abnormal experiences.

Maher’s position is categorized as a ‘one-factor’ theory of delusion, since it assumes that abnormal experience alone is sufficient for the formation of delusions. It has therefore received criticism from those who insist that a ‘second factor’ is necessary for delusions’ development (McKay et al., 2005; Mckay, 2012; Stone & Young, 1997). Two-factor theories of delusion agree that belief-forming mechanisms’ input (i.e. abnormal experiences) must be abnormal, but hold also that belief-forming processes and belief-appraising mechanisms must be disordered or dysfunctional, in order for delusions to develop and be sustained.²⁵ Two-factor theory emphasizes that not all patients who have abnormal experiences develop delusions. Let us call this ‘the first focalization problem.’ If abnormal experiences alone are sufficient to the formation of delusions, all those who have abnormal experiences must form delusions. This is not the case. The discrepancy between abnormal experience and the formation of delusions suggests that additional conditions are involved in delusions’ formation. Advocates of two-factor theory note that to form delusions because of abnormal experience is *not rational*, given the range of the patient’s other accumulated beliefs with which the delusion does not accord. Stone and Young emphasize that in forming beliefs based on our experience, we must balance two principles—observational adequacy and conservatism (1997). Observational adequacy requires us to form ‘beliefs that do justice to the deliverances of one’s perceptual systems,’ whereas the principle of conservatism requires us to form ‘beliefs that require little readjustment to the web of belief’ (Ibid., p. 349). In light of this, patients who form and maintain delusions based on their abnormal experiences in isolation are mistaken, since they preserve observational adequacy at the expense of conservatism.²⁶

²⁵ The two-factor theory treated in this paper was formulated by Stone & Young; however, Coltheart, a most energetic defender of two-factor theories of delusion, formulates two factors in a different manner (Coltheart, Langdon, & McKay, 2007; Coltheart, Menzies, & Sutton, 2010; Coltheart, 2007; Langdon & Coltheart, 2000). According to him, the first factor is that which explains the specific content of the delusion, and the second factor, in combination with the first, explains why the delusion develops. (Langdon & Coltheart, 2000, p. 184).

²⁶ McKay also attempts to explain the delusion formation process through a modified version of Bayesian inference, which incorporates what he calls a ‘bias toward explanatory adequacy’ (Mckay,

Two-factor accounts of delusion have their own problems, however. If the second factor of delusion formation is patients' general cognitive tendency to overvalue current experience and undervalue consistency with their other beliefs, delusions should form whenever patients have misleading experiences. However, patients with pathological delusions are not also likely to form a delusion that a stick is crooked on seeing a straight stick half-immersed in water. If general cognitive dysfunction is necessary for delusion formation, that patients with pathological delusions do not necessarily form delusions in every case of misleading experience requires additional explanation (Davies & Coltheart, 2000, pp. 25-26). Let us call this 'the second focalization problem.'

In fact, Maher's theory is able to manage both focalization problems – that is, that not everyone who has abnormal experiences forms delusions, and that not every misleading experience induces delusion. Regarding the first problem, variation in the quality and quantity of abnormal experiences is vital. Maher states that experiences that cause delusions are not only abnormal, but also intense. He characterizes delusion-inducing abnormal experiences as 'vivid' (1974, p. 108), 'overwhelming' (Ibid., p. 104), and 'prolonged over considerable periods of time' (Ibid., p. 108). He emphasizes that such experiences are sufficiently intense that 'the possibility of tolerating ambiguity by suspending explanation is therefore very much attenuated' (Ibid., p. 104).²⁷ Maher implies that, among abnormal experiences, only those that are intense cause delusions. This is a simple and straightforward solution for the first focalization problem.²⁸

Second, since Maher's theory does not require general cognitive dysfunctions for the formation of delusions, it is not concerned to explain why those with delusions do not develop delusions from every illusory experience. Nonetheless, it must address the fact that when patients form delusions due to abnormal experience, they are mistaken inasmuch as they promote observational adequacy at the expense of conservatism. If this mistake is not due to the patient's general cognitive dysfunction, its explanation is still wanting.

Indeed, this mistake is also explained by the abnormal experiences' intensity. Imagine, as a similitude, that you are waiting in a queue when a gangster shouts 'get out of my way', and that, in your fear, you allow him or her to cut in front of you. It is not the case that you have a general inclination to set individual requests above social codes. If a normal citizen, and not a gangster, acted the same, you would demand that he or she go to the rear of the queue. You could not help but put the gangster's request above the social code at the time, since the threat was intense. The intensity of the abnormal experience plays a similar role to the intensity of the gangster's threat. That is, those who form delusions based on abnormal experiences prioritize observational adequacy *regarding those experiences* above conservatism, *because they are intense*. This does not entail that those patients have a general inclination to put observational adequacy before conservatism.

2012).

²⁷ Charles Bonnet syndrome is a condition in which patients experience vivid and elaborate hallucinations without a sense of imminence (Gold & Rabins, 1989). Patients with this condition soon realize that their experiences are unreal, and do not form delusions.

²⁸ Maher himself indicates this. See (1999, p. 566). Davies criticizes the idea that differences in the intensity of abnormal experience explain why delusions are not formed in all cases, emphasizing that the intensity of experience is inferred from the fact that delusions are formed, and therefore the *explanans* is semantically dependent on the *explanandum* (Davies, Coltheart, Langdon, & Breen, 2001, p. 146). This criticism is unwarrantedly behavioristic about human experience, however: differences in the quality of experience are related to, but not identical with, differences in observable behavior. Qualitative differences of experience may, in the future, be measured by differences in the patient's neurophysiological state.

The above discussion shows that the two focalization problems are soluble given Maher's theory of delusion. Yet, his theory has its own problem: to over-prioritize observational adequacy is, even if induced entirely by the intensity of an experience, *not rational*. This difficulty indicates a fundamental concern. It is that to compare patients' development of pathological delusions from abnormal experiences with scientists' advancing unusual hypotheses to accommodate strange data is half-right but half-wrong. The analogy of scientist has two points. First, scientists *form* hypotheses. Second, scientists *compare* hypotheses and *select* one that best explains data. Patients and scientists are comparable as for the first point; there is no doubt that patients, in a sense, *form* the content of delusions. For patients to be able to form the content of pathological delusions, their cognitive function must be substantially intact. With respect to the second point, however, the analogy collapses. As Maher himself emphasizes, experiences that cause pathological delusions are so intense and overwhelming that the person involved cannot judge them calmly. The analogy of the scientist therefore misses the sense of imminence that disallows deliberate judgment. Considering this, forming delusions from abnormal experience is more similar to being overwhelmed by duress, and yielding to it in confusion.

We should not confuse *the intensity of experience* that induces pathological delusions with *the strength of evidence* we seek in order to justify our hypotheses. For instance, the results of a study of 100 subjects give stronger evidence than those of a similar study of 10 subjects; eyewitness testimony is considered stronger evidence than hearsay; and a security camera recording is stronger evidence than eyewitness testimony. By contrast, the intensity of experience is comparable to the loudness of the shout of threatening gangster. Intense experience influences the subject to take a certain attitude, *regardless* of its strength as evidence.

McDowell's description clarifies the difference between Maher's and my understanding of delusion. McDowell objected to the view that our beliefs about the external world may be justified by virtue of causal constraints imposed on us by the world, through what he calls 'the Given,' which resides outside the realm of what we can conceptually grasp. He states the following (1996, p. 8):

Now perhaps this picture secures that we cannot be blamed for what happens at that outer boundary, and hence that we cannot be blamed for the inward influence of what happens there. What happens there is the result of an alien force, the causal impact of the world, operating outside the control of our spontaneity. But it is one thing to be exempt from blame, on the ground that the position we find ourselves in can be traced ultimately to brute force; it is quite another thing to have a justification. In effect, the idea of the Given offers exculpations where we wanted justification.

McDowell insisted that normal perceptual experiences should not be considered causal constraints imposed from outside the realm of concepts. I want to claim, regarding abnormal and intense experiences that induce pathological delusions, precisely that to which McDowell objected regarding normal perceptual experiences: that intense abnormal experience is a 'brute force' that assails the patients from 'outside the control of their spontaneity.' It therefore *exculpates* rather than *justifies* patients. Given their experience's intensity, deluded patients are exempt from rational scrutiny regarding their delusions. Maher's assertion that delusion is rational seems to stem from his confusion of intensity of experience and strength of evidence, and of exculpation and justification.

5.2. 'Rationality' is Involved in the Development of Pathological Delusions

To say that norms of rationality are not applied to pathological delusions is consistent with the fact that delusions partially conform to these norms, just as local laws are sometimes not applied to visiting diplomats, even if the diplomats conform to the laws. Pathological delusions' partial

conformity to the norms of rationality requires explanation, however.

Most symptoms of illness—not specifically mental illness—result from interactions between pathological processes and bodily responses to them. For example, a fever that develops when we catch a cold is generated by the body in order to overcome the pathogen. Phlegm accompanied by pneumonia is the remains of white blood cells that fought germs. It is characteristic of mental illness that bodily responses to pathological processes occur in the mechanism that typically generates rational mental states and actions. Pathological delusions fit this description.

The mechanisms that typically generate rational mental states and actions may also generate dreams. Imagine a dream of winning a million dollars in a public lottery. The mechanism that generates this dream must overlap, if it is not identical with, that which would be engaged in the waking thought of winning a million dollars. Hence, the dream takes a functional role somewhat similar to the waking belief. For example, the dreamer might—in his dream—exult at his fortune, and buy a sports car.

Pathological delusions are similar to dreams in several regards. First, the mechanisms that ordinarily produce rational mental states and actions participate in the genesis of delusions and of dreams. Because of this, both delusions and dreams, although imperfect, enter a rational relationship with other mental states and actions. Second, holders of pathological delusions and dreamers both have the impression and memory of holding delusions and of dreaming, although they do not realize that they are delusions—nor dreams—at the time. When one awakes from a dream, one remembers the dream as what one has dreamt. Similarly, some patients who recover from a psychotic state remember that they had delusions. Third, in spite of the first two characteristics, we do not regard the content of dreams and pathological delusions as things patients *believed*, even if they are experienced as veridical during sleep or a psychotic state. Those who suffer from pathological delusions are, as it were, caught in a never-ending nightmare.

Some evidence suggests that the existence of delusions is *correlated* with the existence of abnormal experiences or cognitive dysfunction.²⁹ No available empirical evidence indicates, however, that one or both of these are *necessary* to the development of delusions. It is clearly necessary that one's generative mechanisms of rational mental states and actions work normally to a certain extent, in order for delusions to develop; not *cognitive dysfunction*, but *sufficiently normal cognitive function* is necessary for the genesis of delusion. That patients with severe mental retardation or advanced dementia *never* develop delusions illustrates this.

Patients who ultimately develop delusions may only have had abnormal experiences and related suspicions in the earlier stages of their illness. Compared with patients who have abnormal experiences and related suspicions, the illness of those with delusions is more serious. The delusional mood is a frequent precursor of psychotic episodes of schizophrenia.³⁰ Depressive mood and anhedonia usually precede psychotic depression. In the earlier stages of illness, patients are aware that something is wrong, even if they do not explicitly realize that they have fallen ill. This insight regarding illness has been called the 'feeling of illness' (David, 1990).

As the illness worsens, however, and patients develop pathological delusions, they lose the insight that something is wrong, and begin to interpret their problems as caused by other people, or

²⁹ For example, Garety et al. found that patients with delusions were biased towards 'jumping to conclusions,' and tended to reach conclusions on the basis of smaller amounts of information, compared with those without delusions (Garety, Hemsley, & Wessely, 1991).

³⁰ Conrad vividly described the prodromal phase of schizophrenia. In this phase, which he called the *Trema* ('stage fright') phase, the patients feels that something very important is about to happen (Conrad, 1958).

by their own faults. For instance, delusional mood in schizophrenia may evolve into a persecutory delusion of CIA observation. Depressive mood in depression may evolve into a delusion of guilt of an irrevocable sin.³¹ In this regard, the development of delusion is a sign that the illness has worsened.

Delusions are called ‘circumscribed’ when they calmly coexist with and are insulated from other beliefs or immediate experiences that contradict them. Such delusions violate the procedural norms of rationality, since obvious inconsistencies are left unsolved. In other cases, delusions are elaborated, when confronted with contradicting beliefs or experiences, to address inconsistencies. Such delusions finally form intricate and self-referential systems, in which apparent inconsistencies are ‘explained’ by additional ad-hoc delusional assumptions.³² What is of note here is that although elaborated delusions are more ‘rational’ than circumscribed ones with respect to procedural rationality, elaborated delusions are severer as symptoms of illness.

The same consideration applies to agential rationality. In many cases, delusions are not expressed in the patients’ actions outside of speech, and patients with florid delusions often adjust well to daily life. Such ‘double-bookkeeping’ illustrates delusions’ failure to conform to norms of agential rationality. In other cases, delusions are acted upon, and the act may have tragic consequences. Delusions seem more ‘rational’ with respect to the agential norms of rationality, when they are acted upon, than they are not. Yet, again, the former scenario is a severer symptom of illness than the latter.

It is evidently false that patients come closer to normality as their pathological delusions conform more fully to the norms of rationality. On the contrary, delusions that behave more like typical beliefs are severer symptoms of illness. In this regard, illnesses that induce delusions bear comparison to autoimmune diseases, which are diagnosed when one’s immune system attacks one’s own organs, misidentifying them as foreign objects. Rheumatoid arthritis, for example, is a type of autoimmune disease; the patient’s immune system attacks joint tissues, which causes severe pain and joint deformation. Autoimmune diseases are complicated by the action of one’s own immune system; the more the immune system is involved in the self-destructive process, the more serious one’s condition becomes. Similarly, the more deeply that mechanisms ordinarily generative of rational reactions become involved in the development of delusions, the more serious the patient’s condition becomes.

6. Conclusion

This paper described the grounds on which a delusion is judged a symptom of illness, and the consequences that follow from that judgment. Not all delusions, which are broadly defined as incorrigible false beliefs, are symptoms of illness. The factors that increase delusions’ symptom-likeness are: bizarreness of content; covariance with other psychological or physiological disturbances; acute progress; concurrent decreases in levels of functioning; and detection of organic diseases known to be associated with delusions. By contrast, when delusions are influenced by the patient’s culture or subculture, or their progression is understandable, their symptom-likeness is

³¹ Using Fulford’s terminology, the patient initially recognizes that his actions fail because something is ‘wrong with’ him; however, on developing delusions, he interprets his actions’ failure as resulting from something ‘done by’ himself, or something ‘done to’ him by others (Fulford, 2004).

³² For the contrast between circumscribed and elaborated delusions see Bortolotti (2010, p. 25f).

reduced.

When judging a delusion as pathological, we do not treat and evaluate the patient with the delusion as we would treat and evaluate a person who believed the same content. The difference in attitude is apparent in practice: allowing involuntary medical interventions; prioritizing physical interventions—such as good rest and psychotropic medication—over psychological ones; denying illocutionary force to delusion-based utterances; and eliminating or diminishing the criminal responsibility of patients who act illegally due to delusions. Although patients with pathological delusions do not acknowledge their delusions as symptoms of illness, we regard them as such, and exempt these patients from responsibilities that might otherwise be associated with their holding their delusions.

Delusions are identified through the intentional stance of the examiner. Because of this requirement, delusions must have at least minimal belief-likeness. On the other hand, delusions do not behave like typical beliefs. Because of this characteristic, it has been proposed that delusions are not really a type of belief, but rather another type of mental state, such as imagination, illusion, or an intermediate mental state located between belief and non-belief.

Against these proposals, doxasticists about delusion may defend their position by slightly modifying Bortolotti's argument: Many mundane irrational mental states are regarded as types of beliefs, and are treated and evaluated according to the norms that govern beliefs; since the difference between mundane irrational beliefs and pathological delusions is one of degree regarding their irrationality, we should also regard pathological delusions as a type of belief, similarly to ordinary irrational belief.

This line of argument has two major defects. First, our attitudes towards mundane irrational beliefs and pathological delusions diverge, since we refrain from treating and evaluating patients with pathological delusions as we treat and evaluate those who have ordinary irrational beliefs. Second, the differentiation is not made based on varying irrationality, but on the consideration that the latter alone is a symptom of illness.

Maher contended that pathological delusion is a result of correct inference from wrong premises, and that delusions are rational, given the intensity of the abnormal experiences that engender them. Considering pathological delusions rational, however, overlooks the vital distinction between the processes of forming unusual hypotheses to accommodate strange but compelling evidence, and of submitting to intense experiences. Given the intensity of the experiences that generate delusion, patients are *exculpated from*, rather than *justified in* holding their delusions. Maher was right, in that the cognitive mechanisms that usually produce rational mental states and actions must substantially function normally in order for delusions to develop. In developing delusion, however, those mechanisms work to destroy the autonomy and agency of the patient. These mechanisms' greater participation in delusion's development is equivalent to more serious illness.

This paper does not decisively refute doxasticism about delusion; however, it shows that no existing argument is able to demonstrate doxasticism's correctness at the expense of anti-doxasticism. To recapitulate, this contention's three central points are as follows. First, regarding surface features, delusions are mental states that are minimally, but not particularly, belief-like. Second, when delusions are pathological, we refrain from applying norms of rationality to them, and do not treat and evaluate the patients holding them as we treat and evaluate those who believe them. Third, pathological delusions sometimes behave like typical beliefs, but this marks patients' more distant departure from normality, and their illness' aggravation.

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