Journal of Philosophy and Ethics in Health Care and Medicine, No.7, pp.3-17, December 2013

Scientific Contribution

The tenacity of delusion and existential feelings

Yukihiro NOBUHARA

(The University of Tokyo,

E-mail: cnobu@mail.ecc.u-tokyo.ac.jp)

Abstract:

Delusions are tenaciously maintained. I explore how the tenacity of delusion can be explained. Firstly, I examine whether the two-factor theory can explain it. In this theory, delusions are caused by two factors: an anomalous experience and an abnormality in belief evaluation. I argue that this theory may explain the tenacity of delusion but has difficulty in explaining its restrictedness. Delusion is restricted to just a few false beliefs; patients do not similarly hold on to the vast majority of their false beliefs. Secondly, I examine whether the one-factor theory can explain both the tenacity and restrictedness of delusion. In this theory delusions are caused only by an anomalous experience. I argue that to explain the restrictedness there must be a division among anomalous experiences; those which cause delusions and those which do not. Existential feelings seem to provide a promising division, but thirdly, I argue that the one-factor theory relying on existential feelings may explain either restrictedness or tenacity but not both. I conclude that we must return to the two-factor theory and suppose that the abnormality in belief evaluation is small. Serious anomalies in experience and slight abnormalities in belief evaluation can explain both the tenacity and restrictedness of delusion.

Keywords: delusion, one-factor theory, two-factor theory, tenacity, restrictedness, existential feeling, jumping to conclusions

Introduction

Delusions are obstinately maintained in spite of rational persuasion

from other people[1]. For example, a male patient with the Capgras delusion may believe that the woman in front of him is an impostor replacing his wife. Doctors or nurses may attempt to persuade him that the woman is really his wife, citing obvious evidence or reasons. Yet the patient will not accept their arguments, and continue to hold his belief.

Why are delusions so tenacious? In this paper I explore how the tenacity of delusions can be explained and, through this exploration, attempt to clarify the nature of delusion. The theme of this paper belongs to philosophy of psychiatry, which is one of the burgeoning areas in philosophy of medicine. The aim of philosophy of psychiatry is to clarify the true nature of mental illness. The clarification is important in itself, but it is also important from an ethical point of view. Treatment of mental illness involves intervention in the human mind. We must be careful about what treatment is ethically permissible and this depends deeply on how to consider the true nature of mental illness.

There are two influential theories of delusion at present, the one-factor theory and the two-factor theory. The two-factor theory is more predominant than the one-factor theory. Firstly, I will examine whether the two-factor theory can explain the tenacity of delusion. In the two-factor theory delusion is supposed to be caused by two factors, an anomalous experience and an abnormality in belief evaluation. The tenacity of delusions might seem to be sufficiently explained by abnormality in belief evaluation. However I argue that the two factor theory has difficulty in explaining the restrictedness of delusions. Delusions are narrowly restricted to a few false beliefs; patients with delusions do not obstinately maintain most of their false beliefs.

The restrictedness of delusion might be more easily explained by the one-factor theory. Therefore, secondly, I will examine whether the one-factor theory can explain both the tenacity and restrictedness of delusion. According to the one-factor theory delusions are caused by a single factor, anomalous experience. Clearly the restrictedness of delusion cannot be explained if any anomalous experience causes a delusion. There

must be a division among anomalous experiences; those which cause delusions and those which do not. Existential feelings seem to provide a promising division. I argue, however, that the one-factor theory making use of the notion of existential feeling may explain either restrictedness or tenacity but not both.

After all, then, it seems that we must return to the two-factor theory. If so, however, how can we explain the restrictedness of delusion? I argue, finally, that it can be explained if the abnormality in belief evaluation is slight. Serious anomalies in experience and slight abnormalities in belief evaluation can explain both the tenacity and restrictedness of delusion.

1. The two-factor theory and the problem of restrictedness

A belief process can be divided into two sub-processes: a belief formation process and a belief evaluation process. When we believe that it is raining now, we first form the belief on the basis of some evidence such as hearing the sound of falling rain, and then evaluate whether it is really true or not. We maintain the belief if it is evaluated as true and reject it if not.

According to the two-factor theory delusions are caused by abnormalities both in the belief formation process and in the belief evaluation process[2]. Anomalous experiences are typical examples of abnormality in the belief formation process. There are no similarly typical examples of abnormality in the belief evaluation process, though a tendency to jump to conclusions is sometimes mentioned as an example.

A patient with the Capgras delusion, for example, feels unfamiliar with the woman in front of him, though she is actually his wife. This is due to a problem in the interface between the face recognition system and the autonomic nervous system. The patient recognizes the woman's face correctly, so that he is aware that the woman looks exactly like his wife. However, his autonomic nervous system does not activate in response to the recognition of the face. Thus he does not feel familiar with the woman.

The two-factor theory claims that anomalous experiences are not sufficient to cause a delusion. There must be an abnormality in the belief evaluation process. If there is no such abnormality, the patient would be able to evaluate correctly whether the formed belief is true, hence would be able to recognize its falsity and to reject it. If, therefore, he continues to maintain the obviously false belief, he must have an abnormality in the belief evaluation process.

The tenacity of delusion can be simply explained by the two-factor theory. Patients with delusions cannot be rationally persuaded by other people because their belief evaluation is abnormal. Doctors or nurses may attempt to persuade the Capgras patient that the woman is really his wife by assuring him, or explaining that he has a feeling of unfamiliarity due to an abnormal lack of activations in his autonomic nervous system. However, the patient cannot be persuaded because he has a deficit in his belief evaluation mechanism. He continues to yield to the anomalous experience which presses him to believe that the woman is an imposter replacing his wife.

Thus the two-factor theory can simply explain the tenacity of delusions. However this simplicity has its cost; it is difficult for the theory to explain the restrictedness of delusions. Patients with delusions do not *in general* obstinately maintain their false beliefs. Delusions are narrowly restricted to one or a few false beliefs. Patients with the Capgras delusions tenaciously believe that their spouse is an imposter, but they do not, for example, tenaciously believe that a straight stick half in water is bent. Patients with the Cotard delusions tenaciously maintain the peculiar belief that they are dead, but they do not tenaciously maintain other false beliefs.

Delusion is restricted in this way[3]. However, false beliefs ought in general to become delusional if there were an abnormality in the belief evaluation process. A straight stick looks bent when one half of it is in water. A delusional patient might mistakenly believe that it really is bent. If she had formed the belief, the purported abnormality in her belief

evaluation process ought to stop her from rejecting it. Other people might attempt to persuade her that the stick is actually straight, but she ought not to be persuadable. When the stick is pulled out of water, she would see its straightness, but even then she might think that, though it is straight when out of water, it is bent when half in water.

Thus it seems difficult to explain the restrictedness of delusions using the two-factor theory. Most false beliefs ought to become delusional if the belief evaluation process is abnormal. Instead, the one-factor theory might best explain the restrictedness of delusions since it does not posit abnormality in the belief evaluation process. In the next section I will examine whether the one-factor theory can explain both the restrictedness and tenacity of delusion.

2. The one-factor theory

According to the one-factor theory, delusions are caused by an abnormality in the belief formation process only[4]. An anomalous experience of unfamiliarity is sufficient to cause delusion in Capgras patients. There need not be any abnormality in the belief evaluation process.

Maher (1999, pp.550-1) emphasizes that the reasoning processes in belief evaluation are intact even in delusional patients. Delusions, he argues, are nothing but rational responses to anomalous experiences. Rational people cannot help holding a delusion if they have these anomalous experiences.

However, it is difficult to understand why patients obstinately maintain their false belief if their belief evaluation process is normal. It may be rational to form a false belief on the basis of an anomalous experience. But it is not rational to maintain that belief in the face of strong counter evidence or persistent arguments by other people that the belief is false. They ought to reject the belief if there are no abnormalities in their belief evaluation system.

The one-factor theory, however, need not be limited to Maher's version. It can include a causal version. In this version, an abnormality in the belief formation process causes abnormality in the belief evaluation process. In the Capgras delusion the feeling of unfamiliarity temporarily warps the evaluation process so that the patient cannot correctly evaluate the belief related to that anomalous experience. What is important here is that the abnormality caused in the evaluation process concerns only the evaluation of the belief related to the anomalous experience; it does not affect the evaluation of other beliefs.

I think that we can regard the causal view as a version of the one-factor theory because there is ultimately only one factor that causes the delusion. To regard it as a version of the one-factor theory, however, we need reformulate the two-factor theory. This is the theory that there are two *independent* factors which cooperate to cause delusion. The causal version of the one-factor theory supposes that there are abnormalities both in the belief formation process and in the evaluation process, but they are not independent. The former abnormality causes the latter. So the causal version does not belong to the two-factor theory.

The causal version of the one-factor theory seems to be able to provide a good explanation for restrictedness of delusions. According to this version, an abnormality in the belief formation process causes an abnormality in the evaluation only of the belief related to it. So only this belief is obstinately maintained. Other false beliefs unrelated to the abnormality in the formation process can be evaluated correctly so that it is possible to reject them.

Taking the patient with the Capgras delusion as an example again, the feeling of unfamiliarity when seeing the woman causes an abnormality in the evaluation of the belief that the woman is an imposter. The patient becomes unable to evaluate correctly only this belief. He is able to evaluate any other beliefs correctly because his belief evaluation mechanism is not independently damaged; it is basically intact. Therefore only the belief that the woman is an imposter becomes delusional; other

false beliefs are rejected sooner or later.

In this way the causal version of the one-factor theory seems to provide a nice explanation of restrictedness of delusions. In fact, however, it does not succeed in explaining restrictedness. According to the causal version any anomalous experience, including ordinary illusions, should cause delusions. A straight stick half in water looks bent. This anomalous experience should also cause abnormality of the evaluation of the belief related to it. So the patient should not correctly evaluate the belief that the stick is bent. This belief would become delusional. Thus the patient would have many delusions related to ordinary illusions (in the same way, normal people also would have many such delusions).

In the causal version of the one-factor theory there is no delusion without some anomalous experience, but equally there will always be a delusion when there is an anomalous experience. Patients with a delusion would have many delusions since they have many ordinary illusions. This means that the causal version of the one-factor theory fails to explain the restrictedness of delusion.

If we pursue further an explanation of restrictedness in the causal version of the one-factor theory we should perhaps divide anomalous experiences into two kinds—those which cause abnormal belief evaluation and those which do not. Ordinary illusions are those which do not cause abnormal evaluation. Only extremely anomalous experiences cause abnormal evaluation. Maher (1999, p.566) suggests that anomalous experiences which cause delusions are much stronger and more persistent or repetitive than usual anomalous experiences.

Maher's suggestion is vulnerable to counterexamples; some people do not have a delusion in spite of seemingly having the same kind of anomalous experience as patients with that delusion (Davies et al. 2005, pp.16-7). However, there might be a better suggestion. The notion of existential feeling is sometimes advanced as providing this. Next I will examine whether it provides an adequate division between the two types of anomalous experience.

3. Existential feelings (1): McLaughlin's view

McLaughlin (2009) suggests that anomalous existential feelings cause abnormality in the belief evaluation process. What is an existential feeling? It is, for example, feeling of being familiar or unfamiliar, significant or insignificant, safe or dangerous, under one's control or out of one's control, real or unreal. McLaughlin characterizes existential feelings as feeling of things as they are related to oneself (ibid., p.152). I feel familiar with my friends. Familiarity is a property that my friends have because they have a certain relation to me. It is not a property that they have by themselves. Existential feelings concern how things are related to oneself[5].

McLaughlin regards existential feelings as having intentionality (ibid., p.152-3). They represent relational properties of things to oneself. They are true or false depending on how things are related to oneself. Patients with the Capgras delusion feel unfamiliar with a person who is in fact familiar to them. They do not have the correct feeling with regard to that person. Their feeling of unfamiliarity is false because it does not correctly represent the objective property of familiarity that the person has to them.

Patients with the Fregoli delusion, on the other hand, feel familiar with many people who are in fact strangers. Based on this feeling they have the delusion that those people are a familiar person in disguise. Their feeling of familiarity is false because it does not correctly represent the objective property of unfamiliarity that those people have to them.

Existential feelings can be illusory, just like perception. Perception has intentionality. It represents objective properties. If a straight stick looks straight, the perception of the stick correctly represents the property of straightness, so it is true. If the stick looks bent, the perception does not correctly represent straightness, so it is false. It is an illusion in this case. Just as perception can be illusory, existential feelings can be illusory.

In McLaughlin's view, anomalous existential feelings, which cause abnormalities in the belief evaluation process, are just false or illusory existential feelings. How do such anomalous existential feelings cause abnormalities in the belief evaluation process? False existential feelings make it very difficult to evaluate correctly beliefs which rely on them. The feeling of unfamiliarity in the patient with the Capgras delusion overwhelms him so that he cannot help believing that the woman is an imposter. But why is it so difficult to evaluate correctly the beliefs which rely on false existential feelings?

McLaughlin appeals to the idea that we do not have the ability to evaluate these beliefs (ibid., p.157). We automatically believe contents informed by existential feelings and do not examine whether they are true or not, because we lack the ability to do so. Thus, if existential feelings are false, we are captured in the false beliefs.

McLaughlin claims that although we do not have the ability to evaluate beliefs which rely on existential feelings, we have the *capacity* to do so; capacity is the ability to acquire an ability (ibid., p.157). Therefore, it is not impossible to have the ability to evaluate these beliefs. However we usually do not have the ability. In contrast, we usually have the ability to evaluate belief brought about by ordinary anomalous experiences such as a stick looking bent when half in water. We do not have delusions related to ordinary anomalous experiences; delusions are restricted to those related to anomalous existential feelings.

An obvious question will immediately arise about this view. Why don't we have the ability to evaluate beliefs which rely on existential feelings in spite of having the capacity to acquire it? Why is it so difficult to acquire the ability to evaluate beliefs relying on existential feelings while it is not so difficult to acquire the ability to evaluate beliefs relying on ordinary anomalous experiences? What is unique about existential feelings that make evaluation of beliefs relying on them so difficult?

No explanation of this is found in McLaughlin's writing. He does nothing but indicate that we do not have the ability to evaluate beliefs

relying on existential feelings while we have such ability with regard to beliefs relying on ordinary anomalous experiences. McLaughlin might provide an explanation of the restrictedness of delusion by distinguishing existential feelings from ordinary anomalous experiences, but he fails to provide an explanation of the tenacity of delusion since he does not explain the uniqueness of existential feelings that make evaluation of beliefs relying on them so difficult.

4. Existential feelings (2): Ratcliffe's view

Ratcliffe's notion of existential feelings might provide an explanation of the tenacity of delusions. He emphasizes the fundamentality of existential feelings: they concern the fundamental relationships of the world to us. They are not just experiences about a specific object in the world, but about the world as a whole or in general. We have specific experiences or beliefs against the background of existential feelings (Ratcliffe 2008, p.2).

There are two important points for us in Ratcliffe's notion of existential feelings. One is that existential feelings constitute the content of a specific experience (ibid., p.158). For example, when the patient with the Capgras delusion feels unfamiliar with the woman, he has an experience whose content is that the woman is an imposter replacing his wife. The feeling of unfamiliarity constitutes the element "an imposter replacing his wife" in the content.

The patient cannot escape the false experience as long as he has the false existential feeling because the content of the experience is constituted by the feeling. In contrast, he can escape the false experience of, say, a stick looking bent even if there is no change in his existential feelings. He can have the experience of the stick looking straight just by pulling it out of water.

The contrast suggests that it is more difficult to reject beliefs which rely on false existential feelings compared to those which rely on ordinary

false experiences. However, it does not yet provide a sufficient explanation for the tenacity of delusions. The patient still ought to be able to reject the belief because his belief evaluation process is intact. He may be unable to escape the false experience, but should be able to reject the belief by taking seriously rational arguments from others.

The other important point in Ratcliffe's notion of existential feeling might provide an explanation for the tenacity of delusions. According to Ratcliffe, existential feelings influence the method of evaluating beliefs (ibid., p.160). The patient's feeling of unfamiliarity with the woman is not just directed to the woman; it is a feeling directed to people in general. The patient feels unfamiliar not just with the woman but also with people in general. For him all people look not like a human being but a humanoid robot. So he cannot accept other people's testimony as such (ibid., p.162). He is unwilling to trust their arguments. Thus he cannot reject the belief that the woman is an imposter replacing his wife; he tenaciously maintains it.

Ratcliffe's notion of existential feeling might provide an explanation of the tenacity of delusions, but at the cost of an explanation for restrictedness. The feeling of unfamiliarity is not just directed to a particular person but to people in general. The patient has the experience whose content is not just that the woman is an imposter replacing his wife but that every person is a humanoid robot. Consequently, he must have the delusion that every person is a humanoid robot if he has the delusion that the woman is an imposter. The delusion would not be restricted to a particular person, but would be diffused towards people in general. However, the Capgras delusion is restricted to one or a few particular persons. Existential feelings in Ratcliffe's sense, therefore, fail to explain the restrictedness of delusions.

5. Slight abnormality in belief evaluation

So far we have seen that existential feelings, either in McLauglin's

sense or in Ratcliffe's, cannot provide an adequate explanation of both the tenacity and restrictedness of delusions. Existential feelings in Mclaughlin's sense are a specific type directed to a specific object or a few limited objects. It may explain the restrictedness of delusions but not tenacity. On the other hand, existential feelings in Ratcliffe's sense are a general type directed to a kind of objects in general. It may explain the tenacity of delusions but not restrictedness.

These considerations seem to suggest that we must adopt the two-factor theory after all. There must be an independent abnormality in the belief evaluation process. But then, how can we explain the restrictedness of delusions? The most serious problem with the two-factor theory is that it seems to be unable to provide an explanation of restrictedness. If there is an independent abnormality in the belief evaluation process, any false belief ought to become delusional. If there is any false belief which becomes delusional because the abnormality in belief evaluation makes its rejection impossible, all other false beliefs should become delusional for the same reason.

In order to avoid this consequence, I suggest that abnormality in belief evaluation is minor. It is not so serious as to make it impossible to reject any false belief. It makes impossible rejection only of those beliefs which are based on an unusual type of anomalous experience such as false existential feelings. It is possible to reject the beliefs which are based on ordinary types of anomalous experience such as perceptual illusions.

Anomalous experiences of an unusual type force us persistently to believe the false content of the experiences. If the belief evaluation process is intact, it ought ultimately to be possible to overcome the pressure from the experiences and evaluate the belief correctly. However, it may not be possible to do so if there is even a slight deficit in the belief evaluation mechanism. In contrast it is possible to overcome pressure from more common anomalous experiences if the deficit in belief evaluation is slight, because these experiences do not force us so vigorously to believe their false content.

What are concrete examples of slight abnormality in belief evaluation? One candidate is a slightly stronger tendency to jump to conclusions[6]. We ordinarily have a tendency to conclude without sufficient consideration of the evidence or arguments, but we can overcome this tendency by taking a cautious attitude. On the other hand, patients with delusions are known to have a slightly stronger tendency to jump to conclusions. They cannot completely overcome this tendency even if they take a cautious attitude. So they continue to hold beliefs based on unusual types of anomalous experience. However, they can reject beliefs which arise from more usual types of anomalous experience because their increased tendency to jump to conclusions is not that strong.

There may be other examples of minor abnormalities in belief evaluation[7]. At any rate, I conclude that in order to explain both the tenacity and restrictedness of delusions there must be some slight abnormalities in the belief evaluation process which are independent of anomalous experiences[8]. This combination of serious anomalous experience and slight abnormality in belief evaluation could cause restricted tenacious delusions.

Acknowledgement

This study was supported by JSPS KAKENHI（24300293).

Notes

[1] By the term “delusion” I mean pathological delusions in this paper. Pathological delusions are tenaciously maintained while non-pathological ones may not. Tenacity is the definitive characteristic of pathological delusions.
[2] See Langton and Coltheart (2000) and Davies et al. (2005) for the two-factor theory.
[3] I distinguish restrictedness from circumscription. We usually attempt to keep our belief system consistent. In order to maintain one false belief, therefore, we must produce many false ones. However, patients who have a delusion do not necessarily produce many false beliefs in order to maintain that delusion. They separate it from other beliefs and do not care about whether it is consistent with other beliefs. Monothematic delusions are circumscribed in this sense. In contrast the restrictedness of delusion does not concern consistency of the belief system.
[4] See Maher (1999) for the one-factor theory.

[5] McLaughlin (2009, p.152) distinguishes existential feelings from bodily sensations. However, we may say that existential feelings include bodily sensations. Ratcliffe (2008, p.2) characterizes existential feelings as both feelings of the body and ways of finding oneself in a world. Existential feelings strongly influence our way of thinking. If we feel unfamiliar with a town, it is difficult for us to think of it as a nice town even if we know it contains excellent restaurants, theaters, parks, and so on. This may be because existential feelings include bodily sensations.

[6] Many experiments show that people with delusions have a stronger tendency to jump to conclusions. See Dudley et al. (1997), Dudley and Over (2003), and White and Mansell (2009).

[7] For example, McKay (2012) suggests a bias towards explanatory adequacy.

[8] There might be cases where a slight abnormality in the belief evaluation process is caused by an anomalous experience. The two-factor theory as it is could not accommodate these cases. However, even in these cases, the slight abnormality would warp evaluation of every belief, not just beliefs which rely on the anomalous experience. So the causal version of the one-factor theory could not accommodate these cases, either. I think it would be better to reformulate the two-factor theory to accommodate them.

References

Davies, M., Aimola Davies, A, and Coltheart, M. (2005). Anosognosia and the Two-factor Theory of Delusions. *Mind & Language*, 20(2), 209-236.

Dudley, R. E. J., John, C. H., Young, A. W., and Over, D. E. (1997). Normal and abnormal reasoning in people with delusions. *British Journal of Clinical Psychology*, 36, 243-258.

Dudley, R. E. J. and Over, D. E. (2003). People with Delusions Jump to Conclusions: A Theoretical Account of Research Findings on the Reasoning of People with Delusions. *Clinical Psychology and Psychotherapy*, 10, 263-274.

Langton, R. and Coltheart, M. (2000). The Cognitive Neuropsychology of Delusions. *Mind & Language*, 15(1): 184-218.

Maher, B. (1999). Anomalous Experience in Everyday Life: Its Significance for Psychopathology. *The Monist*, 82(4), 547-70.

McKay, R. (2012). Delusional Inference. *Mind & Language*, Vol. 27, No. 3, 330-355.

McLaughlin, B. P. (2009). Monothematic Delusions and Existential Feelings. Bayne, T. and Fernández, J. eds. *Delusion and Self-Deception: Affective and Motivational Influences on Belief Formation*, Psychology Press, 139-164.

Ratcliffe, M. (2008). *Feeling of being: Phenomenology, psychiatry and the sense of reality*. Oxford: Oxford University Press.
White, L. O. and Mansell, W. (2009). Failing to Ponder? Delusion-Prone Individuals Rush to Conclusions. *Clinical Psychology and Psychotherapy*, 16, 111-124.