# PSYCHIATRIC CLASSIFICATION AND DIAGNOSIS. DELUSIONS AND CONFABULATIONS.

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#### Introduction

In psychiatry some disorders of cognition are distinguished from instances of normal cognitive functioning and from other disorders in virtue of their *surface features* rather than in virtue of the underlying mechanisms responsible for their occurrence. Aetiological considerations often cannot play a significant classificatory and diagnostic role, because there is no sufficient knowledge or consensus about the causal history of many psychiatric disorders. Moreover, it is not always possible to uniquely identify a pathological behaviour as the symptom of a certain disorder, as disorders that are likely to differ both in their causal histories and in their overall manifestations may give rise to very similar patterns of behaviour.

Consider delusions as an example. It wouldn't be correct to *define* delusions as those beliefs people form as a result of a neurobiological deficit and a hypothesis-evaluation deficit (as some versions of the two-factor theory of delusions suggest), because for some delusions no neurobiological deficit may be found, and reasoning biases and motivational factors may be contributors to the formation of the delusion (e.g. McKay *et al.*, 2005). Moreover, it would be a mistake to *define* delusions as symptoms of schizophrenia alone, because they occur also in other disorders, including dementia, amnesia, and delusional disorders. Thus, aetiological considerations may appear in the description and analysis of delusions, but do not feature prominently in their definition.

In this paper I argue that the surface features used as criteria for the classification and diagnosis of disorders of cognition are often epistemic in character. I shall offer two examples: confabulations and delusions are defined as beliefs or narratives that fail to meet standards of accuracy and justification. Although classifications and diagnoses based on features of people's observable behaviour are necessary at these early stages of

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neuropsychiatric research, given the variety of conditions in which certain phenomena appear, I shall attempt to show that current epistemic accounts of confabulations and delusions have limitations. Epistemic criteria can guide both research and clinical practice, but fail to provide sufficient conditions for the identification of delusions and confabulations, and fail to demarcate pathological from non-pathological narratives or beliefs. Another limitation of current epistemic accounts – which I shall not address here – is the excessive focus on epistemic *faults* of confabulations and delusions at the expense of their epistemically neutral or advantageous features (see Bortolotti and Cox, 2009). This may lead to a misconception of delusions and confabulations, and to an oversimplification in the assessment of the needs of people who require clinical treatment for their psychotic symptoms.

In section 1, I shall introduce epistemic definitions of delusions and confabulations. In section 2, I shall detail three ways in which delusions and confabulations infringe norms of rationality for beliefs. In section 3, I shall ask whether the pathological character of delusions and confabulations can be cashed out in terms of their epistemic faults. I shall conclude that it cannot, because even if delusions and confabulations are irrational, most non-pathological beliefs are also irrational, maybe to a lesser extent, but in qualitatively similar ways. In order to make this point, I shall show how the conditions listed in current epistemic definitions are not sufficient to distinguish clinical cases of delusions and confabulations from beliefs and behaviours that are common in the general population and are not necessarily associated with any psychiatric disorder.

## 1. Delusions and confabulations

Both delusions and confabulations are defined on the basis of their surface features (e.g. how people with delusions and confabulations behave) and these features are described in epistemic terms, that is, they make explicit reference to the notions of truth, rationality, justification and belief. In particular, the epistemic features attributed to people with delusions and confabulations have been interpreted either as infringements of norms of rationality for beliefs (including resistance to counterevidence, inconsistencies, lack of evidential support, failure of action guidance) or as failures of self-knowledge (such as distorted sense of one's personal boundaries, double bookkeeping, inaccurate autobiographical narratives). These epistemic faults are often assumed to be the source of the pathological nature of the phenomena of delusion and confabulation, and

are listed as criteria of demarcation between pathological and non-pathological beliefs.

Here are some examples of definitions where there is no *specific* reference to aetiology or to the psychiatric disorders in which delusions and confabulations occur:

Delusion. A false belief based on incorrect inference about external reality that is firmly sustained despite what almost everyone 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 [DSM-IV-TR], 2000, p. 765).

A person is deluded when they have come to hold a particular belief with a degree of firmness that is both utterly unwarranted by the evidence at hand, and that jeopardises their day-to-day functioning (McKay *et al.*, 2005, p. 315).

Confabulations are typically understood to represent instances of false beliefs: opinions about the world that are manifestly incorrect and yet are held by the patient to be true in spite of clearly presented evidence to the contrary (Turnbull *et al.*, 2004, p. 6).

In the broad sense confabulations are usually defined as false narratives or statements about world and/or self due to some pathological mechanisms or factors, but with no intention of lying (Örulv and Hydén, 2006, p. 648).

Key terms used in the above definitions include "belief", "proof", "evidence", "judgement", "warrant", "falsehood" or "incorrectness". What is in common between delusions and confabulations is that people report a statement, explain an event or answer a question in a way that is inaccurate, but they seem to genuinely believe that what they are saying is true. Reports are endorsed with conviction in spite of there being no strong evidence for their being true, and are tenaciously maintained in the face of conflicting evidence, testimony or argument. A woman whose facial recognition capacities are impaired may lose affective responses to familiar faces and come to believe that her son has been replaced by an impostor, maybe an alien abductor or a clone with almost indistinguishable features (Capgras delusion). Family members may attempt to persuade her that her son has not been substituted by offering evidence of his identity, but they usually fail. A man with attentional and attributional biases may come to

think that his work colleagues hate him, talk behind his back and intend to cause him evil – maybe get him fired (delusion of persecution). The evidence for these beliefs is often very weak, and subject to alternative and more plausible interpretations: a colleague may have looked away in the corridor not because he was hostile, but because he was absent-minded. Delusions such as Capgras and delusions of persecution become very distressing and often have pervasive and disruptive effects on people's lives.

One attempt to distinguish between delusions and confabulations is to argue that confabulations are associated with conditions characterised by memory impairments (such as amnesic syndromes), whereas delusions seem to appear even when memory is intact. This may not always be the case, as people with no memory impairments can engage in confabulation (e.g. people with anosognosia, the denial of illness) and delusions can occur in dementia and amnesia. Here are some "narrow" definitions of confabulation make an explicit reference to memory capacities:

Confabulations are false memories produced without conscious knowledge of their falsehood (Fotopoulou, 2008, p. 543).

An extreme form of pathological memory distortion is confabulation, i.e. the production of fabricated, or distorted memories about one's self or the world, without the conscious intention to deceive (Fotopolou *et al.*, 2008, p. 1429).

Once again, the key terms are all epistemic in character: "memory", "fabrication", "deception", and so on. Having partially lost access to relevant autobiographical memories in the context of amnesia or dementia, people "make up" stories about their identity, their geographical location, their occupation, or their family, in order to better navigate the surrounding environment and interact socially with others (see Örulv and Hydén, 2006; Fotopoulou, 2008). For instance, a patient with Alzheimer's disease may come to believe that the person assisting him is a paid nurse, because he does not recognise her as his daughter; or he may not remember that his wife had died years earlier and come to explain her continued absence with a long trip abroad.

### 2. Epistemic faults of delusions and confabulations

As we saw, psychiatrists and psychologists are usually happy to define delusions and confabulations as beliefs. However, in the philosophical literature, there is a lively debate on the nature of delusions among the philosophers who offer an epistemic account of delusions. Some identify delusions with intentional states that are different from first-order beliefs, such as acts of imagination (Currie, 2000), acceptances (Frankish, 2009), hybrid states (Egan, 2008) or attitudes towards representations (Stephens and Graham, 2006). Some argue that the phenomenon of delusions is not exhausted by the reporting of beliefs states, and comprises experiences, mood, and a variety of affective and cognitive states (Gallagher, 2009). Other philosophers defend the belief-status of delusions (Bayne and Pacherie, 2005; Bortolotti, 2009).

I suspect that, if we want to understand the current criteria for the classification and diagnosis of delusions and confabulations, and flesh out what makes delusions and confabulations epistemically faulty, we need to use a notion of rationality for beliefs (see Bermúdez 2001; Bortolotti 2005). Such a notion is sensitive to the interaction between belief states and experience; belief states and other intentional states; belief states and affective states; and belief states and behaviour. As such, it may do justice not just to the epistemic character of doxastic accounts of delusions and confabulations, but also to that of hybrid accounts.

There are at least three ways in which belief states can be irrational: they can be badly integrated with the subject's other intentional states (procedural irrationality); they can be insufficiently supported by or responsive to the evidence available to the subject (epistemic irrationality); and they can be inconsistent with other instances of the subject's observable behaviour. In this case, they can fail to be supported by the subject's reasons, or fail to guide the subject's action (agential irrationality). Delusions and confabulations can be irrational across these three dimensions.

Here are some examples of the irrationality of delusions. Breen and colleagues (2000, p. 91) describe the case of a woman with reduplicative paramnesia who claimed in the same stretch of conversation that her husband had died four years ago and was cremated (true) and that he was a patient in the same ward of the hospital where the woman was being cared for (false). The woman in question is procedurally irrational, in that she reports two beliefs that cannot both be true. Jordan and colleagues (2006, p. 787) describe the case of a woman with erotomania who tenaciously believed that the man she loved also loved her, and could not live without her. She said this was confirmed by his messages, presented to her as the licence plates on cars of a certain state, and as the colour purple. In this case of erotomania, the subject offers reasons to prove that the man she loves is in turn in love with her, but the "evidence" she mentions (e.g.

messages he sends her by means of licence plates) is not only insufficient to support her belief, but also seems to have no obvious connection to the content of the belief. Gallagher (2009) describes typical cases of double-bookkeeping, when believing the content of the delusion does not explain or is not consistent with the behaviour of the subject. A person with persecution may claim that doctors and nurses in the hospital want to poison him, and yet he eats the food he is given. Similarly, people claim they are dead (Cotard delusion), and yet they do not act dead.

Let me offer one example of the irrationality of confabulation. Ramachandran (1996) reports the case of a woman (FD) who suffered from a right hemisphere stroke and, as a result, she was affected by left hemiplegia. FD cannot move without a wheelchair and cannot move her left arm. But when she is asked whether she can walk or engage in activities which require both hands (such as clapping), she claims that she can. Not only that: when the doctor asks her whether she is clapping, FD says that she is, although her left arm remains motionless. This is a case of anosognosia, the denial of illness, which presents obvious failures of procedural and epistemic rationality. FD does not seem to "register" the perceptual evidence of her impairment, and she even reports events that do not happen, such as the movements of her left arm. One explanation of this puzzling phenomenon is that in normal subjects, the left hemisphere produces confabulatory explanations aimed at preserving the status quo ("I'm not ill"), but the right hemisphere does its job and detects an anomaly between the hypotheses generated by the left hemisphere and reality. So, it forces a revision of the belief system (for more details about the theory of hemispheric specialisation, see Gazzaniga 1985). In patients such as FD, this discrepancy detector in the right hemisphere no longer works.

Hirstein (2005, ch. 8) offers a detailed description of the epistemic faults of confabulators which we can use to make sense of the epistemic faults in FD's behaviour.

Jan confabulates that p if and only if:

- Jan claims that p.
- Jan believes that p.
- Jan's thought that p is ill-grounded.
- Jan does not know that her thought is ill-grounded.
- Jan should know that her thought is ill-grounded.
- Jan is confident that p.

This list of conditions shows us what is (epistemically) wrong with confabulation: there is a belief that is not well-grounded on the available evidence and the subject should know that the belief is not well-grounded (but she doesn't, and instead she reports it with confidence). In the case of FD, she claims that her left arm can move and that she can engage in actions which require moving her left arm (such as clapping with both hands). But the claim is false, as FD's left arm is paralysed. FD should know that her claim is ill-grounded, because she should be able to remember what she was told about her arm being paralysed, and she should be able to see that her arm does not move.

# 3. The irrational and the pathological

There are cases of "ordinary" reports which fit the epistemic accounts of delusions and confabulations that we have been considering so far. In this section I shall show that epistemic considerations are not sufficient to distinguish irrational beliefs from pathological ones.

One set of beliefs that cannot be easily distinguished from clinical delusions on epistemic grounds is that of religious beliefs, especially those religious beliefs that are not accepted by the whole community to which the subject belongs. Although there can be arguments for and against religious beliefs, and some of these arguments have premises that can empirically tested, it is not uncommon for some religious beliefs (for instance, those involving the existence or causal efficacy of supernatural beings or powers) not to be grounded on observable phenomena or to be held in the face of current scientific theories. Thus, religious beliefs are a good example of mental states that play a role in people's mental economies and influence people's behaviour, but are not necessarily responsive to evidence.

Those who have studied the differences between religious beliefs and religious delusions have noticed many elements of continuity between the two phenomena, including certain reasoning patterns, among which a general tendency to ascribe responsibility of events (especially negative events) to external factors of a religious nature.

[R]eligious beliefs are fairly common and are not pathological. Religious people demonstrate an external attributional bias. A proportion of people will experience psychotic experiences, some of which will involve auditory hallucinations. There will be an attempt to make sense of these experiences and the religious people in particular are more likely to make sense of their psychotic experiences by developing religious delusions. These religious experiences and delusions may

help the person to deal with the negative life events which they are faced with. (Siddle *et al.*, 2002, p. 131).

The most common religious delusions consist of hearing voices and having hallucinations, combined with the attribution of these voices or visions to the intention of God to communicate. In comparison to other delusions, religious delusions have been found to be more strongly held and less amenable to revision than other types of delusions. Although the presence of religious delusions is much more marked in cultures with a strong religious tradition, criteria aimed at telling religious beliefs apart from religious delusions have been identified. Religious delusions can be distinguished from religious beliefs because: (a) both the reported experience of the subject and her ensuing behaviour is accompanied by psychiatric symptoms; (b) other symptoms are observed in areas of the subject's religious beliefs; (c) the subject's lifestyle after the event giving rise to the report indicates that the event has not been for the subject an enriching spiritual experience (Siddle *et al.*, 2002).

For our purposes it is important to notice that none of the criteria concerns epistemic features of the report and one criterion (possibly the central one) specifically refers to the effects of the report on the well-being of the individual (see also Fulford, 2004). The assumption seems to be that the experience leading to the reporting of a religious belief has a comforting and positive effect on subsequent behaviour, whereas the experience leading to the reporting of a religious delusion has a disruptive and negative effect. The approach revealed by this assumption speaks in favour of there not being a sharp demarcation between religious delusions and religious beliefs on epistemic grounds. The main body of the DSM-IV definition of delusion would struggle to explain why some religious beliefs are not delusions, given that some religious beliefs share their unresponsiveness to evidence with delusions. That is probably why a clause has been added to the DSM-IV (that the delusions is not an article of religious faith) to avoid the problem.

But the DSM-IV might encounter similar problems with respect to other types of irrational beliefs. In other words, the definition provided in terms of epistemic criteria applies equally well to delusions and other types of beliefs, such as those prejudiced or superstitious beliefs that are not dominant in a community:

• The belief is false.

- The belief is based on incorrect inference about external reality.
- The belief is firmly sustained despite what others believe and despite evidence to the contrary.

Beliefs about alien abductions or about nights of full moon causing accidents share many of the epistemic features of delusions. They are false, they are not well-supported by the available evidence, and they are often resistant to counter-evidence or counter-argument.

Are there also instances of confabulation in our everyday lives? Young children end up believing with conviction narratives that they were encouraged to make up at an earlier time (Ceci, 1995), and adults provide post-hoc explanations for their reported attitudes that are not likely to match the psychological causes of those attitudes (Nisbett and Wilson, 1977). Here is an example.

Subjects in a shopping mall were presented with an array of four sets of items (e.g. pairs of socks, or pantyhose), and they were asked to choose one of them as a free sample. (All four sets of items were actually identical). Subjects displayed a marked tendency to select the item on the right-hand end of the display. Yet no one mentioned this when they were asked to explain why they had chosen as they did. Rather, subjects produced plainly confabulated explanations, such as that the item they had chosen was softer, it had appeared to be better made, or that it had a more attractive colour (Carruthers, 2005, pp. 142-3).

Nisbett and Wilson (1977) argue that, in the experiment, verbal introspective reports were driven by judgements of plausibility rather than by direct knowledge of the mechanisms by which one selected the items. It is more plausible for me to think that I chose one nightgown over another due to its qualities, say, its softness and colour, rather than due to its position on a rack.

The epistemic definition of confabulation offered by Hirstein (2005) can be applied to the behaviour of patients with anosognosia, but also to the behaviour of subjects who are not aware of the effects of the position of items on their own choices, or, more generally, are mistaken about the reasons for their own judgements. When I choose a nightgown because it is on my right, but then claim that the reason for my choice is that this nightgown has a more subtle colour than the alternative, I also have a false and ill-grounded belief. It is not true that the nightgown I chose has a more subtle colour, as it is identical to the other one. As I had the opportunity to see whether there were any differences between the two items, my

judgement is not well-grounded on the evidence available to me, and I should have realised that. But I didn't.

In recent papers (e.g. Mullen, 2003; Jones, 2003; Hamilton, 2007), it has been argued that there is a categorical distinction between delusions and beliefs, and that the phenomenon of clinical delusions and confabulations cannot be understood within the framework of folk-psychology. Authors are impressed by our frequent failure to fully understand delusional reports, by the inappropriateness of the context in which delusions emerge, and by the observed discrepancies between the content of the delusion and the background beliefs shared in the subject's cultural and social context.

However, our observations about current definitions of delusions and confabulations lead us to reject the view that there is a categorical distinction, and support the idea that there is a continuum between delusions and non-delusional beliefs, and between pathological and normal instances of confabulation. This appeal to continuity between delusions and confabulations and beliefs has important implications for the prevention, diagnosis, and treatment of psychosis, and contributes to a less stigmatised conception of the mentally ill in public perception and in healthcare. In support of the continuity thesis, epidemiologists have noticed that demographic, social and environmental risk factors for schizophrenia, such as victimisation, use of cannabis and urbanicity, are also correlated with the occurrence of delusion-prone tendencies in the general population (Rutten et al., 2008). Johns and van Os (2001) argue that there is distribution of psychotic symptoms in people who are not diagnosed with psychiatric disorders, and these symptoms include delusions and hallucinations. «To the extent that psychotic-like beliefs are prevalent in the non-patient population, they can be labelled as normal. The question then becomes to what degree the normal beliefs expressed by the non-patients are truly discontinuous with the abnormal beliefs expressed by patients» (Delespaul and van Os, 2003, p. 286).

These considerations suggest that one need not be diagnosed with a psychopathology to report beliefs that are as epistemically faulty as delusions and confabulations. It is not to be ruled out that clinical delusions and confabulations deviate from norms of rationality to a higher degree than other irrational beliefs that are not pathological. But the nature of the epistemic faults involved does not seem to be different, and does not justify the claim that the reporting of delusions and confabulations defies our folk-psychological understanding.

### Conclusions

In this paper I first argued that delusions and confabulations are defined in terms of their epistemic features, and then I suggested that the conditions listed in epistemic definitions are not sufficient to distinguish clinical delusions and confabulations from delusion-like ideas and confabulatory behaviour found in the "normal" population.

A definition of delusions and confabulations based exclusively on surface features of an epistemic kind (resisting counterevidence, being false, not being justified, etc.) will not demarcate successfully delusions and confabulations from other irrational beliefs. So, what makes delusions and confabulations pathological? One could argue that, although delusions and confabulations are on a *continuum* with irrational beliefs, you are likely to find them towards the "very irrational" end of the line, where the degree of rationality tracks both how much they deviate from norms of rationality for belief and how many norms of rationality they deviate from. Another possibility worth-exploring is that delusions and confabulations are pathological because they negatively affect the well-being of the subjects who report them (Bolton, 2008). Irrational beliefs that do not come to the attention of mental health professionals seem not to cause as much distress.

There is an assumption that delusions and confabulations are more puzzling in content than other irrational beliefs. But this is not a claim that can be generalised. Not *all* delusions are puzzling and easily detectable: delusions of jealousy or religious delusions are not puzzling in certain contexts and it might take some questioning to ascertain that the subject reporting them has a mental health issue. Moreover, it is not clear what the puzzling nature of some delusions or confabulations implies. It may be a contingent fact (contingent on human history and culture) that we find the belief that a clone has replaced one's relative much more puzzling and disturbing than the belief that all Jewish people are after money, black people are violent, or women never make good scientists. The puzzling content of some delusions and confabulations is not necessarily an indication of their being pathological, unless "pathological" means "statistically unusual".

In conclusion, epistemic accounts of delusions and confabulations play an important role in guiding research and clinical practice, and cannot be replaced by merely aetiological definitions at this stage of neuropsychiatric research. But we should not expect the epistemic faults that define delusions and confabulations to act as criteria of demarcation between pathological and ordinary beliefs.

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