Depression, Optimism and (Ir)Rationality

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Abstract. In the popular view depression is often triggered and maintained by fundamentally *irrational* beliefs, that is beliefs not supported by the evidence. Such beliefs may relate to one's self-worth, one's skills, one's sense of control or one's future. According to cognitive theories of depression [1, 2, 3] affected people present *negativity bias* (a tendency to focus on negative aspects of themselves and the world) which implies that they are less *rational* than 'healthy' persons, who 'see things as they really are', therefore their beliefs are grounded in reality and supported by the evidence.

In this paper I expose the cognitive view as oversimplifying the complexity of the relation between depression and rationality. I want to ask whether certain symptoms of depression might be linked to more rational judgements (*depressive realism* – [4]) and what is the character of such relation. Furthermore, based on empirical evidence, I show that 'healthy' people are often prone to *positive illusions* (overly optimistic beliefs with regard to self and the world – [5]) and that these optimistic judgements, although psychologically useful, may be seen as irrational, as they are not warranted by objective data.

In Section 1 I review and assess the relation between depression and the thinking presented in philosophy and fiction, putting special emphasis on the notion of rationality. In Section 2 I summarise my research on *depressive realism* and describe its epistemic features that can be constructed as the acquisition of more accurate beliefs with regards to certain aspects of self and reality. In Section 3 I examine empirical evidence in support of the claim that being an optimist requires people to maintain psychologically useful but often irrational beliefs. Finally I conclude that the relation between depression and rationality is much more complex than explicated by the cognitive account and requires re-visiting.

1

What is the relationship between depression and thinking? Or – to put the question in a different way – does one's thinking change together with the experience of depression?

Aristotle, who claimed that the insight coming from melancholy is of great value for self-knowledge made an important discovery, significance of which has not yet been fully recognised until now. Following the development of the clinical view of depression as a mental illness which deteriorates one's cognitive and emotional processes, philosophers have mainly been focusing on illness-bounded human suffering and distempered mood. Whilst psychiatric investigations were bursting with 'clinical symptoms' and argued about 'diagnostics', countless phenomenological works offered a unique insight into personal narratives and subjective experiences of depression – an insight impossible to overestimate [6]. Similarly, striking examples of depressive narration come from the literature and other works of art, depicting intensity of human emotions weaved with pain, sadness, regret and guilt, to name only a few. It seems apparent that the cognitive side of such dramatically portrayed emotional states will be implicated as similarly impaired belief states: I am worthless, incompetent, sinful, nothing good will happen to me, and so on [7]. Thinking about oneself and about the world in depression will have to be dominated by generalised negativity, judgements of one's own failure, expectations of things going wrong, ruminating on past mistakes and – in more severe forms of the illness – by *delusions* (false beliefs not responding to available evidence). Indeed, one of the most popular psychological accounts of depression (the so-called cognitive model) provides strong empirical evidence in support of the view that depressive thinking is dominated by negative bias and other cognitive errors, such as 'learned hopelessness' [8], explicated in a situation, when one abandons an effort after previously having failed in a particular task.

What kind of insight then (if any) had Aristotle in mind when he suggested that melancholy (or chronic sadness as it was called those days) helps one acquire self-knowledge? Is not such a claim counter-intuitive to what we now know about depression, and what has been measured and evidenced in countless experimental settings? Are there any forms, or elements, of depressive thinking, which might be related to more accurate or more rational beliefs, as opposed to clinical theories of depressive thought disorders and irrationality?

There has been a surprisingly long time gap between Aristotle's claim and empirical findings which shed some light on the true meaning of his words. Only in 1979 two experimenters Alloy and Abramson (students of renowned cognitivist Seligman) accidentally discovered an intriguing relation: people who experienced symptoms of depression were more realistic than 'healthy' participants, when assessing their own control over uncontrollable (random) events. The results of this study, repeated in subsequent trials, amazed the scientific world. The suggestion, that people with depression may think in any way 'more rationally', 'more accurately', or –colloquially saying - be 'wiser' with regards to reality than healthy ones was simply counter-intuitive and denied all the earlier presumptions.

The phenomenon of 'depressive realism', as the discovery has been named, became an attractive subject of on-going debates in scientific and literary circles; the related question 'are sadder wiser?' became a central point of philosophical speculations. Quite rightfully, the wisdom-loving discipline had more interest than others in discovering the truth about depressive thinking. Perhaps Aristotle was right, after all? An idea that one's beliefs may be closer to truth when one experiences sadness sounds like an interesting one. Some argue that the best philosophers recruit from melancholics, therefore, there must be a sound link between these two [9]. 'Depressive realism' became an inspiration for novelists, who speaking about the 'sad cruelty of life' through the mouth of their fictional characters [10] kept passing on the message that life is – in its nature – bleak and unkind.

In sum, the idea that sad people 'know better' or 'know more' became an inspiration for many interpreters, artists and free thinkers and gave rise to countless works of art and intellectual

debates. However, do the 'sadder but wiser' experiments support the idea that symptoms of depression enhance rational thinking? Is the hypothesis that people with depression are 'wiser' than others true or is it merely a quasi-scientific myth?

2

Depressive realism is the thesis that people with depression make more realistic inferences than 'healthy' individuals [11]. The term refers to the phenomenon discovered in 1979 in a series of experiments designed around assessing the judgment of contingency tasks [4]. Participants are asked to press a button and observe whether or not pressing the button results in the light switching on. In reality, the experimenters have predetermined the frequency of illumination and participants have no control over its occurrence. The results of this estimation were very surprising for the experimenters. The assessments made by participants with symptoms of depression were more accurate than those made by 'healthy' individuals. People with depressive symptoms judged their control over the illumination correctly: their judgment of contingency was convergent with reality. At the same time, judgments made by individuals without depressive symptoms have been shown to exhibit a positive cognitive bias. 'Healthy' participants significantly overestimated the degree of self-control in the contingency task. The two phenomena – the accurate inferences made by people with depressive symptoms and the positively biased judgment made by 'healthy' individuals have been since referred to, respectively, as 'depressive realism' and 'illusion of control'.

The outcome of Alloy and Abramson's experiment surprised the scientific world. If the authors' conclusion was true, all that had been said about depression so far was wrong. According to at least two significant and well-established theories of depression, i.e. Beck's cognitive theory [1, 2, 3] and Seligman's 'learned helplessness' model [8] this clinical condition was associated with an overall negative bias, consisting of deeply held dysfunctional beliefs about the self, the world and the future. The implication was that in people with depression cognitions were systematically less informed by reality, and therefore more irrational than in people without depression. The new 'depressive realism' hypothesis (hereafter, DR) presented an alternative view to what had been understood so far: individuals who experience symptoms of depression are capable of making realistic and rational inferences about certain aspects of reality. What is more, they do so to a greater extent than 'healthy' individuals, at least in some circumstances.

The results achieved by Alloy and Abramson shed a new light on the phenomenon of depression. Could people who experience depressive symptoms really be closer to the truth than 'healthy' individuals? This question seems to be of vital importance for clinical research. Indeed, to find the right answer could mean a better understanding of the nature of depression-associated cognitive processes and of elements of depressive aetiology, and, most importantly, could lead to new, more effective therapies.

But to understand the phenomenon of DR is also a critical challenge for epistemologists. DR can shed light on (1) how people acquire knowledge about reality and about themselves, (2) whether they process information about themselves differently from information about others, and (3) what makes their representations more accurate in some circumstances. A reflection on the epistemic aspects of the DR hypothesis could help us understand our cognitive capacities and limitations. This, in turn, might be helpful in addressing the question of the nature of the relation between depression and rationality.

3

A thorough meta-analysis of empirical evidence confirms that people affected by low mood hold more accurate beliefs with regard to themselves and self-related circumstances. For example, they are more accurate [than happy people] when assessing their own control over random [uncontrollable] events [12, 13], when recalling their own past performance [14, 15] or when predicting future, self-related events [16, 17]. Although these results were no longer shown in cases of severe depression or when judgements referred to non-self related circumstances, the findings suggest that low mood enhances accuracy of our self-knowledge, therefore it may be seen as epistemically beneficial.

The capacity for rational judgements achieved in a due course of depressive symptoms may not sound like a quick recipe for overwhelming joy, but it certainly has the potential for delivering one's life's deeper meaning and more substantial purpose. For example, rational thinking would be of high desirability for every project based on leadership. Every good leader ought to make important decisions with equally meaningful consequences. These decisions, in turn, ought to be based on the most accurate evaluation of the circumstances; thus, it looks here like rationality would be of the best possible use and value. Take Winston Churchill, for instance. The capacity to correctly assess the situation in a country troubled by war, allowed him to make the decisions of the highest level of rationality. The results of Churchill's judgements are not to be underestimated; they led him to win the war as well as to gain the fame of one of the greatest leaders in history.

Winston Churchill is known to have lived with manic-depressive illness, battling depression for most of his life [18]. To what extent did his mental struggle affect his leadership? Numerous historians and biographers are committed to saying that the content of Churchill's mental experience was indeed depressive. However, not many hold that this particular trait was included and required in the list of necessary conditions for Churchill to win his way to glory. Nonetheless, as his personal doctor recalls, Winston Churchill suffered for most of his life, throughout his childhood and adult life, throughout his political failures and glory days, struggling with severe mood alterations. Being able to notice and rationally assess the disparity between oncoming danger and his own resources, Churchill was capable of making the best possible decisions and performed winning actions, which placed him ahead of political rivals. As Ghaemi notes:

"What made Churchill see the truth where Chamberlain saw only illusion? A key difference was that Chamberlain was mentally healthy (…) while Churchill was clearly not. (…) He had courage beyond reason (…), because he had faced death many times before (…)." [19] p.66

4

In the previous section I offered some evidence in support of the view which challenges the cognitive account of the relations between symptoms of depression and rationality. In this section I review the evidence in support of the thesis that healthy people maintain self-related beliefs which often seem to drift away from rationality. The research over the phenomenon of *positive illusions* (PI) (overly optimistic view of oneself) tells us that in order to enjoy psychological well-being, one ought to abandon certain self-related rational beliefs of oneself in favour of more optimistic, psychologically beneficial beliefs [20].

Shelley Taylor [5] presents empirical evidence for the view that certain beliefs, although not supported by evidence, enhance mental and physical well-being. Believing that one is healthier, smarter or prettier than warranted by reality, makes one happier and this – according to Taylor – benefits one's health. Positive illusions, although sometimes far from rational insight, constitute pragmatic and psychological advantage. These creative self-deceptions are particularly adaptive when one is threatened by adversity.

"Effective functioning in everyday life appears to depend upon interrelated positive illusions, systematic small distortions of reality that make things appear better than they are." [5] p.228

Accordingly, holding 'true' beliefs about the self does not contribute – according to Taylor – to psychological well-being.

"(…) individuals who are moderately depressed or low in self-esteem consistently display an absence of such enhancing illusions. Together, these findings appear inconsistent with the notion that accurate self - knowledge is the hallmark of mental health." [20] p. 197

According to Taylor and Brown [21] there are three general kinds of PI: inflated assessment of one's own abilities, unrealistic optimism about the future and an illusion of control. A classic example of positive illusions is the *better-than-most effect*. People tend to find themselves warmer, kinder, more sincere, etc., than the average person and these self-appreciating views are correlated with higher achievements. Similarly, children who overestimate their capacities develop better language, problem-solving, or motor skills [5, 20, 21]. People affected by serious illness who believe that they are coping better than other patients are found to experience reduced stress [22, 23, 24]. Another example concerns *illusions of control*. In a lottery situation, people who have been assigned random tickets prefer to swap their tickets with those they choose themselves, even if this does not impact on their chances to win [25]. People's belief that they can change external circumstances for the better (when the circumstances are such that they are possible to be changed to some extent) contributes to better adjustment in context of trauma or chronic illness [26]. Finally, *unrealistic optimism about the future* is the phenomenon by which "people anticipate that their future will be brighter than can reasonably be justified on statistical grounds" [21]. People who are optimistic in this way are more creative, and cope better with stressful situations. Taylor and colleagues [27] studied men who had tested seropositive for HIV and found that they were more optimistic about not acquiring AIDS than men who knew they were seronegative. This (illusory) optimism was correlated to health-promoting behaviour and use of positive coping techniques. Taylor and Brown have shown not only that PI are widespread in non-clinical populations, but that there are strong links between certain forms of PI and the promotion of mental health (in terms of creativity and productivity), and physical health (in terms of prolonged longevity).

For example Affleck and colleagues [28] in their interesting study found that men who had sustained a heart attack and who perceived that they had obtained some benefits from that heart attack, including a change in their philosophy of life or values, were less likely to have a subsequent attack. They also exhibited less cardiac morbidity over an eight-year follow-up period. The idea of 'benefitting' somehow from such a traumatic event as a heart attack might be perceived – to some extent – as illusory belief, as – again – not being supported by objective data. There is a broad array of further research indicating that positive beliefs, such as those that form the core of PI, might influence the course of physical disease [20, 21, 27]. The evidence frequently points at the positive affect [29], better health behaviours [27], good social relationships [21] and better sense of personal control [27] as possible links between one's enhanced beliefs and physical recovery.

Positive effects of PI seem to be most frequently acquired in the face of adversity, such as serious illness or another type of misfortune. People enhance their beliefs, which help them to cope with a traumatic event in a more efficient way. These beliefs, although to some extent irrational (as not supported by objective data), are not based on radical distortion of reality but rather on the mild or moderate alterations. The acquired benefits seem to be both significant and long-term, linking to better and quicker recovery as well as to improved life satisfaction.

5

The analysis presented here suggests that the relation between symptoms of depression and rationality is more complex than explicated in cognitive theories. Although people suffering from clinical forms of depression may present significant negativity bias in their judgements, people experiencing mild or moderate forms of depression often maintain more rational beliefs with regards to themselves than 'healthy' individuals. The empirical research over the phenomenon of positive illusions shows that 'healthy' people hold overly optimistic beliefs with regard to themselves. Such beliefs, although psychologically advantageous, often are not warranted by available evidence, and therefore cannot always be accounted for as rational. These findings indicate the possibility that under certain circumstances beliefs maintained by the person suffering from depressive symptoms might be more rational than those of a 'healthy' mind. Further empirical research is needed to confirm such hypothesis.

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