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Misevaluating the Future: Affective Disorder and Decision-Making Capacity for Treatment – A Temporal Understanding

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Keywords

Decision-making capacity · Mental capacity · Phenomenology · Affective disorder · Depression · Mania

Abstract

Background: Within psychiatric practice and policy there is considerable controversy surrounding the nature and assessment of impairments of decision-making capacity (DMC) for treatment in persons diagnosed with affective disorders. We identify the problems of “cognitive bias” and “outcome bias” in assessment of DMC for treatment in affective disorder and aim to help resolve these problems with an analysis of how time is experienced in depression and mania. **Sampling and Methods:** We conducted purposeful sampling and a qualitative phenomenological analysis of interview data on patients with depression and mania, exploring temporal experience and decision-making regarding treatment. **Results:** In both severe depression and mania there is a distinctive experience of the future. Two consequences can follow: a loss of evaluative differentiation concerning future outcomes and, relatedly, inductive failure. This temporal inability can compromise an individual's ability to appreciate or “use or weigh” treatment information. **Conclusions:** The decision-making abilities required for self-determination in-

volve an ability to evaluate alternative future outcomes. Our results show that, within severe depression or mania, anticipation of future outcomes is inflexibly fixed at one end of the value spectrum. We therefore propose a temporal model of decision-making abilities, which could be used to improve assessment of DMC in affective disorder.

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Introduction

Within psychiatric practice and policy, considerable debate surrounds the assessment of impaired decision-making capacity (DMC) in affective disorders. We argue that within the context of affective disorder, a temporal understanding of decision-making ability, which focuses on an individual's evaluation of potential future outcomes, could assist in assessment of DMC for treatment by showing two specific patterns of distortion in the decision-making process that function as tipping points for decision-making ability/inability.

We start by reviewing the key issues in the DMC debate regarding affective disorder before moving on to show how an analysis of temporal experience can help resolve these issues.

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“Cognitive Bias” and “Outcome Bias”

The concept of DMC puts the emphasis on assessing the decision-making *process* rather than the decision-making *outcome*. The English Mental Capacity Act, for example, as one of its principles states that “a person is not to be treated as unable to make a decision merely because he makes an unwise decision” [1]. In applying this standard, the analysis of decision-making abilities is what matters. However, most legal formulations of these abilities have attracted criticism that they overemphasise cognitive abilities and do not adequately detail the non-cognitive, or evaluative, abilities, which can be required to make decisions about treatment. This can be called the problem of “cognitive bias,” which threatens to compromise the legal standard of DMC. The tendency to treat someone as unable to make a decision because they make an unwise decision can be called the problem of “outcome bias,” which also threatens to compromise assessments of DMC under the legal standard.

The medical ethicist Louis Charland has called the cognitive bias problem “a legal noose around the theoretical neck of capacity” [2] and clinicians have complained that legal definitions of decision-making abilities may well be irrelevant to the subtle evaluative impairments of decision-making associated with affective disorders that can impact upon the “rationality” of decisions made by patients [3–6].

Attempts to resolve the cognitive bias problem have focused on the concept of “appreciation,” sometimes meaning “the ability to apply information, abstractly understood, to oneself” but also encapsulating a notion of “irrational” belief. Kim, following Grisso and Appelbaum, has argued that a refusal of treatment shows a lack of appreciation ability if the belief underpinning the refusal is “substantially irrational, unrealistic, or a considerable distortion of reality” and due to a “cognitive or psychiatric condition” [7, 8].

This appreciation ability is helpful for assessing DMC for treatment in cases of psychosis where delusions may be impacting upon decision-making [9], although even in this context, potential problems surround the judgement that irrational beliefs, arising from a mental disorder, are underpinning refusal. In the case of affective disorders, however, where delusions may not be present, or overt, or where consent may be as controversial as refusal (e.g., electroconvulsive therapy), this operationalisation of appreciation is far more problematic and returns us to the problem of “outcome bias.” For even if appreciation helps us with the “cognitive bias” problem, how might it help avoid the difficulties of outcome-based assessments? How, without resorting to judgements as to what constitutes a “seriously

irrational” decision outcome, would the appreciation ability capture how “hopeless-helpless” thinking impacts on the treatment decision-making process in depression? Similarly, how would it show why behavioural changes in the early phases of mania do not simply represent a capacious re-evaluation of future plans?

In England and Wales, the Mental Capacity Act [1] (S3(1)(c)) includes an inability to “use or weigh” relevant information in the process of deciding, rather than an inability to “appreciate,” and one of its aims was to avoid reference to a “rationality” requirement [10]. It also includes the requirement that relevant information include “*reasonably foreseeable consequences* of – (a) deciding one way or another, or (b) failing to make the decision” (Mental Capacity Act 2005; S3(4); emphasis added).

If we are to arrive at an interpretation of “appreciation” or “use or weigh” that is fit for purpose in affective disorder, we need research that does not prejudge the interpretation using extant forms of measurement [11, 12] and which gives a more detailed and empirically grounded understanding of how such abilities might be compromised.

A potential way forward is to analyse temporal experience within affective disorders and how temporal abilities within the decision-making process can be distorted by depression and mania.

Temporal Experience

Temporal experience is a classic theme in psychopathology – for example, in Jaspers’ *General Psychopathology* [13] or work by Lewis [14]. In affective disorder, key symptoms and signs revolve around temporality and speed (e.g., slowed/speeding thoughts; hyperactivity, psychomotor retardation), and classic phenomenological psychiatrists such as Minkowski and Binswanger had regarded manic depressive insanity (the old Kraepelinian category for what we now call “severe unipolar depression” and “bipolar affective disorder”) as essentially a disorder of temporality [15, 16]. Contemporary psychopathologists and philosophers of psychiatry continue to express significant interest in the theme [17–21]. This is a rich literature, but clarity and consistency remain problematic [22, 23], and, to our knowledge, the study of temporal experience has not, before our work, been extended to problems in DMC.

Using in-depth analysis of interview data, we aim to show the centrality of temporality to DMC in affective disorder and to use this to propose an understanding of how the ability to appreciate or use and weigh treatment can be impaired in affective disorder. Our aim was to integrate the empirical and conceptual into a clinical and legal context [24].

Methods

We investigated the temporal structure of treatment decision-making using open structured in-depth interviews with patients with depression and mania. We used a method drawing upon interpretative phenomenological analysis [25] adapted to interviews in clinical research settings. An interview topic guide was developed, and the interviews guided the participants to consider their past, present and future in relation to real-time treatment decisions with room left to clarify the meaning of participants' spontaneous comments. The analysis started with close reading of the transcribed texts and, through a process of textual coding, moved toward thematisation. The phenomenological method and analysis is described and illustrated in more detail elsewhere [22, 23, 26]. Interpretative phenomenological analysis aims to purposefully collect homogeneous samples to address a question about subjectivity or experiential structure. To enquire into the experiential structure of other people there need to be rich, in-depth data with a multi-perspective analysis. For these reasons, sample sizes must not be too large.

Interpretative phenomenological methods are indicated for two reasons. Firstly, research on the nature of DMC in affective disorders is a context in which discovery and hypothesis generation is needed – as discussed above, we cannot presuppose we have valid measurements of the relevant decision-making abilities. Secondly, case-based interviews are the main form of evidence in DMC assessment, where clinicians and courts need to reach decisions, based on an analysis of single-case evidence. An interpretative framework for collecting and presenting evidence on single cases is therefore relevant to DMC assessment.

Sampling was purposeful, with all cases belonging to the category of “affective disorder.” The cases were carefully selected so there was no significant comorbidity. All the depression cases had previously experienced depressive episodes, with no history of mania/hypomania. All mania cases had established histories of bipolar affective disorder with several prior affective episodes. The case selection, clinical ratings and interviews were conducted by G.S.O., a senior psychiatrist.

The interviews typically lasted 1–2 h and involved a follow-up interview within a few days. After transcription, coding and analysis were conducted within an interdisciplinary research group comprising psychiatric, legal, phenomenological and service user expertise. This was done to provide different perspectives of relevance to the material and to withdraw it from an exclusively “clinical” frame. The illustrative excerpts included below are drawn from a much larger body of interview data.

Results

Sample Characteristics

Depression

Twelve participants satisfied the DSM-5 criteria for major depressive disorder. These were split into what we will call “severe depression” (D1–6) and “non-severe” depression (N1–6). D1–6 were sampled from acute psychiatric care settings in the South London and Maudsley NHS Foundation Trust. All 6 cases had recurrent epi-

sodes, the current episode being severe with melancholic features. Their Hamilton Rating Scale for Depression scores were in the range of 32–46, with 3 cases showing psychotic features. All patients faced treatment decisions, and all but 1 were inpatients. Their ages ranged from 57 to 77 years; 3 patients were male and 3 were female.

N1–6 were sampled from non-acute psychological outpatient treatment settings in the South London and Maudsley NHS Foundation Trust and had histories of primary care in South East London. All 6 cases had recurrent episodes, the current episode being mild to moderate with anxious distress. Their Beck Depression Inventory II scores were in the range of 17–36. All patients faced decisions about whether to start cognitive behavioural therapy. Their ages ranged from 22 to 74 years; 3 patients were male and 3 were female.

Mania

Six participants satisfied the DSM-5 criteria for bipolar I disorder, the current episode being manic (BP1–6). They were all inpatients in the South London and Maudsley NHS Foundation Trust. All manic episodes were severe according to the DSM-5 criteria. The patients' Young Mania Rating Scale scores ranged from 23 to 48, with 4 patients showing psychotic features. All patients faced treatment decisions. Their ages ranged from 32 to 57 years; 2 patients were female and 4 were male.

Phenomenological Analysis of Decision-Making in Affective Disorder

Selected interview excerpts for severe depression, non-severe depression and mania are shown in Table 1.

Severe and Non-Severe Depression

What is it like to make decisions about treatment when depressed? Our interviews present rich data suggesting the relevance of temporality. While lack of hope for improvement, combined with wishing for such hope, was common in both severe and non-severe cases, the severe depression cases revealed a distinct and dominant temporal pattern – a future of negative evaluative inflexibility and stifling negation or nothingness. While those with severe depression appeared able to envisage a future, it appeared rigidly closed to positive possibilities (see excerpts 1 and 2).

Related to this future experience of negation or nothingness was the experience of death, well expressed by D4 in excerpt 3. What D4 is expressing is not a thought about wanting/not wanting to die, but a more fundamental experience of death coming toward him. Here and else-

Table 1. Selected interview excerpts for severe depression, non-severe depression and mania

Excerpt No.	Mental state
Severe depression	
1	<p>Interviewer: What does tomorrow look like for you? What does tomorrow feel like?</p> <p>D2: Oh I don't know. I have to get through tonight.</p> <p>Interviewer: Yeah.</p> <p>D2: Just lying there.</p> <p>Interviewer: Does it feel like an eternity?</p> <p>D2: Mmm.</p> <p>Interviewer: An eternity of what?</p> <p>D2: Dark.</p>
2	<p>Interviewer: What about tomorrow?</p> <p>D5: I don't know. Same as today – nothing.</p>
3	<p>Interviewer: How would you describe your feelings now?</p> <p>D4: I'm anxious again. You know...everything's a distraction,...to take me away from what's going to happen. You know I go back to my room and lie there ready, that's why I lie in my room.</p> <p>Interviewer: Ready for what?</p> <p>D4: Ready for death.</p>
4	<p>Interviewer: Does it help to know what the time is?</p> <p>D2: It's worse.</p> <p>Interviewer: It's worse?</p> <p>D2: Mmm.</p> <p>Interviewer: Why is it worse to know what time it is?</p> <p>D2: I know how long I gotta go...till what? Till what? This is terrible.</p>
5	<p>Interviewer: So, you're in hospital at the moment and there's the decision about whether to stay here or not stay here. There's this decision about whether to stay in hospital.</p> <p>D4: Yeah.</p> <p>Interviewer: How do you see yourself in time to come, like in the next few weeks or months? What do you hope for?</p> <p>D4: Don't know.</p> <p>Interviewer: You don't know?</p> <p>D4: I don't know whether I've got a few weeks.</p>
6	<p>Interviewer: I also spoke to...your Care Co-ordinator. And she was telling me a little bit about how things have been for you in the past...two years ago now, after the treatment that you had in hospital you were very good. You felt well. She said that you were very...</p> <p>D5: I was well once.... I was well, I don't know what year it was, but I was well.... But now...I'm no good again now....</p> <p>Interviewer: Do you hope to get better?</p> <p>D5: There's no chance of that.</p> <p>Interviewer: No chance? How do you know?</p> <p>D5: Because I know.</p> <p>Interviewer: Sorry? How do you know there's no chance? You got better before.</p> <p>D5: That was a long time ago.</p> <p>Interviewer: Couldn't you get better again?</p> <p>D5: No.</p> <p>Interviewer: How do you know that?</p> <p>[no reply]</p> <p>Interviewer: Possible?</p> <p>D5: No.</p> <p>Interviewer: Not possible to get better?</p> <p>[non-verbal negation]</p> <p>Interviewer: How come you got better before then?</p> <p>D5: I dunno. Maybe it's the treatment I had.</p>

Table 1 (continued)

Excerpt No.	Mental state
	<p>Interviewer: Could the treatment make you better again? D5: It did then. It must have done. Interviewer: Could it do it again? D5: No. Interviewer: Are you sure about that? D5: Yes. Yes.</p>
Non-severe depression	
7	<p>Interviewer: So this [opting for CBT] is, in a sense, about wanting the future to be different, or wanting some sort of change? N1: Mmmm, wanting the future to be different? Wanting more say in it, I suppose. Wanting more control over it and not feeling like I'm just coasting and just being pulled in a direction that I'm not necessarily happy with. I suppose it is about having a bit more control over my mind, and therefore my day to day existence.</p>
8	<p>Interviewer: How does the future seem for you? N2: Bleak.</p>
9	<p>N5: The pain is going to continue, the pain of being depressed and the pain of everything I feel. And it feels like you're consumed with negative thoughts over and over again.</p>
10	<p>N5: And in the future, from all the treatments or self-help that I am doing I would like to achieve just genuine happiness where the majority of my days I'm happy, and if I am upset about something I can confront it properly and deal with it in an appropriate and mature manner.</p>
Mania	
11	<p>BP7: It's bright, it's very bright. It's as bright as the sun is. ... The light is part of me. ... I'm part of the circle of life; I'm part of the energy of life.</p>
12	<p>BP6: Charlie and the Chocolate Factory. You know when the elevator smashed through the roof? ... Reach the peak and it's...through the roof, through the ceiling. ... Not nasty. It's like it's being free. He looked down and he could see everything, and everything was his.</p>
13	<p>BP4: You think that everything's great and God's coming, and stuff like that. Or you're a part of God, or you're making a change in the world. So you don't care about yourself...</p>
14	<p>Interviewer: So when you think about the future now, how does the future seem to you? BP9: It's great, it's golden, it's wonderful. It's going to be full of all the things that I could potentially have, create for myself. ... I know that my life will be full of abundance [clicks fingers] if I keep this synchronistic approach.</p>
15	<p>Interviewer: Do you have worries about the future, or do you feel that the future's...? BP5: No. I don't fear about the future, the future will take care of itself.</p>
16	<p>Interviewer: What can you see if you look into the future? BP6: Palm trees, whitewashed buildings, hot sun. Anywhere, like that. But not just that, you know. Places where I haven't been.</p>
17	<p>Interviewer: And what does it seem filled with, your future? BP7: It seems filled with kind of ambition, and drive, and.... I don't really know how to describe it really. Like, hope and er...positivity, creativity, enervation [sic!]. I could just list off... Interviewer: Does the future seem good to you? BP7: It does seem good to me. It seems great to me. It seems great, and I can't wait for it.</p>
18	<p>BP9: I can't even imagine one [future manic episode]. ... I'm through it. I've not peaked and gone down. I'm in a different arena. This is a new game now.</p>
19	<p>Interviewer: So what you're saying is that all the issues about mania, and managing mania, in the past are... BP4: Fizzling out.</p>

where, death is overwhelmingly present, a future which shapes present experience.

The ability to project oneself into the future is essential to self-determination, which presupposes an ability to experience one's present task of deliberation and choice as shaping one's future. Nevertheless, decisions about one's own treatment require the ability not simply to project oneself into a future, but to experience this future as "evaluatively differentiated," insofar as it has a potential variety of different values and meanings. A future experienced with only one possible meaning or value becomes rigidly closed to the possibility of being shaped. Self-determination is, accordingly, threatened.

As we have said, our data show projection into a future – but a future keenly sensed as dark with anticipatory anxiety. Excerpt 4 illustrates this: the participant indicates that the act of attending to the future is at the heart of the experience of depressive terror.

In all severe depression interviews, the ability to experience one's future, in relation to treatment, as open and amenable to shaping was absent, or severely threatened. In excerpt 5 we see how anticipated death or nothingness prevents any possible future evaluative differentiation and how decision-making is clearly affected by how an anticipated future shapes the experience of the present. A further pattern of impaired decision-making ability also emerged in how interviewees failed to assimilate past experiences into making inferences/judgements about their future. The pattern is shown in excerpt 6. Here, a clear acknowledgement of past variability and recovery is accompanied by a *simultaneous* belief that the future lacks this potential. There is no movement from the premiss of past regularities (my mood has shown change) to its inductive conclusion (changes in mood will likely continue and recovery is possible). What is striking here is how the future is experienced as *radically* different from the past. For someone in the throes of such an experience, ordinary inductive reasoning no longer gets much traction. This impaired reasoning can be understood as a consequence of how the *future* is being experienced – through the category or lens of death and negation.

By contrast, in non-severe depression the experience of the future as evaluatively differentiated in relation to treatment was evident in all our cases. Excerpt 7 gives an example. Evaluative differentiation was occurring in the non-severe cases even though symptom loads were high and the future was typically experienced as bleak and painful (excerpt 8). With N5, for example, there was a seemingly agonising anticipated future (excerpt 9). Nev-

ertheless, this was counterbalanced by the future possibility of alleviation through treatment (excerpt 10).

Mania

Current classifications place mania at the opposite pole of depression within a single disease entity, *bipolar* affective disorder. The notion of an oppositional and symmetrical relation was supported by our data on temporal experience. The mania interviews were rich with references to life, possibilities and salvation – the very opposites of depressive death, nothingness or hopelessness. Excerpts 11–13 give examples of these categories of experience.

Again, these categories are futural – possibilities relate to future potential as opposed to what is now actualised; one looks forward to salvation. Indeed, we found plentiful evidence of a strong and immediate experience of the future, with excerpts 14–17 as illustrations.

As with depression, the future does not admit the possibility of evaluative differentiation and is fixed inflexibly – in the case of mania, within positivity. Yet, while this experience of the future shapes the experience of the present (the present seems "pulled" towards the future), significantly, it does not extend to shaping the past, where, in particular, past episodes of mania were typically recalled accurately and *without* any pervasive positive valence. Here we once again see a distinctive impairment of inductive abilities, similar to that which occurred with depression, since the dominance of manic futurity appears to prevent any accurate recollection of past episodes from being used to make future predictions. Past episodes were, quite literally, experienced as irrelevant to future mood management – as excerpts 18 and 19 illustrate.

Experience of the Future in Severe Depression and Mania

As experienced in mania and severe depression, the future and its dominance over the present appear fixed at polar ends of the value spectrum. Within mania, the future is bright, the present without sickness (excerpts 11 and 14); within depression, the converse seems true (excerpts 1 and 3). This undermines the ability to draw evaluative distinctions between future possibilities (excerpts 5, 14 and 15). Yet, deciding for oneself about mental health treatment requires, as we have said, *an ability to project oneself into a future with potentially different value outcomes*. We shape our futures both by selecting current and anticipated positives and by navigating negatives. Without future negatives *experienceable* (as in mania) or without future positives *experienceable* (as in severe de-

pression), the future becomes closed to the possibility of the individual shaping it and thereby closed to self-determination. Moreover, within this future, previous regularities of mood *variation* become irrelevant to reasoning about mood management (excerpts 6, 18 and 19), and the process of using relevant information from the past (inductive reasoning) appears to break down. Notice that this failure need not reflect any general impairment of reasoning abilities; indeed, relative to the distorted temporal experience, the reasoning itself may well be valid.

Discussion

Based on our phenomenological interviews, we have proposed a temporal understanding of decision-making ability in affective disorder. In both severe depression and mania, *the future* can be experienced in a radically anomalous way which can undermine DMC for treatment.

Limitations

We did not have interview data on hypomania, bipolar depression or mixed states, which limits our analysis across the full range of affective disorders. Further data on these additional states would be desirable. Whilst we had a comparison group with non-severe depression in which temporal abilities were evidenced, the study did not include a healthy control group.

From a more ethical-legal angle, questions remain related to the decision-specific nature of DMC in affective disorder. We found some evidence that in severe depression and mania, some day-to-day decision-making, such as planning to take a shower (severe depression) or remembering to pay for a TV licence (mania), could be *uninfluenced in their temporal operation* despite a temporal inability concerning treatment. This suggests potential support for decision specificity and the need to ensure that impairments of temporal abilities are related to the specific decision under consideration, without any global assumptions about the decision-making ability. Further analysis would be needed to consider non-mundane decisions such as research participation or financial management.

Finally, although the temporal understanding focuses on the decision-making process rather than outcome, the extent to which it escapes value judgements can be questioned. For example, a strong religious belief about salvation or despair comes with a predestined exclusive positivity or negativity (in this sense an evaluative inflexibility). If we accept that such a belief is consistent with exercising self-determination, might it be argued that our

temporal understanding is then based on a value judgement which discriminates against those with affective disorder? Yet, law and psychiatry do create exclusion criteria for culturally sanctioned religious beliefs, and there may well be sound phenomenological evidence for why these cases are distinct. Comparative interview data involving people with such religious beliefs, without affective disorder, could be helpful to address this question.

Experience of the Future in Affective Disorder

Both severe depression and mania lead to experienced futures fixed at polar ends of the value spectrum without differentiation – in mania, a positive valence structured around limitless possibility and creation, and in severe depression, a negative valence structured around negation and death. As argued, an ability for evaluative differentiation in relation to future options is a necessary condition for self-determination, and through this lens, we can see a common structure to DMC for treatment in severe affective disorder across very different mental states (depression and mania). This also helps us to solve some puzzles that have existed regarding affective disorder in relation to the clinical concept of insight. There is evidence suggesting that insight is a good proxy for DMC for treatment in mania, whereas in severe depression it is a poor proxy [27]. The temporal understanding helps us to see why. With a future experienced as having inherent positive valence, an awareness of illness and relabelling of symptoms as pathological (core dimensions of the insight construct) become impossible self-conceptions, whereas with a future experienced as having inherently negative valence, the core dimensions of insight become salient self-conceptions.

Moreover, in both affective states, the process of inductive reasoning can break down in a similar way, with the inflexibly positive or negative future rendering any past transitions in health irrelevant to current treatment decisions. Within severe depression, the negativity of one's future rules out the consideration of possible recovery. Conversely, within mania, a future destined to be positive makes past experiences of illness irrelevant to future health.

In both mania and severe depression, this constricted experience of the future occurs phasically within the natural history of the illness. Given the fluctuating nature of capacity loss in severe affective disorder, it is also important to point out the time-dependent nature of the suggested temporal inabilities. This phenomenon of changing temporal abilities is supported by studies showing that severe affective disorders are associated with regaining DMC for treatment over time [28]. When the tempo-

ral structure in severe depression or mania is present, it limits how the patient's past experience of illness can be used as a relevant guide to treatment. This is because the concept of treatment itself revolves around the notion of future health, which will, during episodes of severe depression or mania, be experienced radically differently than at other times. For severely depressed patients – such as D4 and D5 (see excerpts 3 and 6), experiencing a future of negation and death – why would treatment not be futile and possibly even cruel? For manic patients – such as BP7 (see excerpts 11 and 17), anticipating an entirely bright future of boundless possibility – what potential benefit could treatment have?

Both impairments of the decision-making process (loss of evaluative differentiation and breaks in inductive reasoning) are likely to impact on the ability to appreciate, or use and weigh, information about reasonably foreseeable consequences of treatment. We therefore suggest that those assessing DMC in cases of affective disorder should determine whether these distinctive forms of evaluative inflexibility and inductive failure are occurring.

As we discussed at the outset of this article, the debate surrounding assessment of DMC in affective disorder faces something of an impasse in relation to the problems of “cognitive bias” and “outcome bias.” Early discussions about how to manage the cognitive bias of ability tests of DMC for treatment have made limited progress. For example, the view that we need to consider whether a decision is “seriously irrational,” proposed by Culver and Gert [6], or whether it involves recognisable or pathological values, proposed by Charland [2], both tend toward an outcome test of DMC – i.e., whether you have DMC will depend on whether a treating clinician (or judge) thinks your decision is irrational or valuable. Yet, within pluralistic, democratic societies, there is scepticism surrounding such outcome tests, and many jurisdictions instead value an analysis of the decision-making process itself. Bursztajn et al. [29] focused on risks and benefits, suggesting that with affective disorders, individuals may minimise or deny benefits of treatment and overemphasise risks. Yet, the question still remains as to *how* the values assigned to risks and benefits of treatment are interfered with by affective disorder.

The “appreciation” measures, designed to assess the non-cognitive elements of DMC, are, as we have discussed, still subject to difficulties. The criterion of “rational belief” puts delusion at the centre, but in affective disorder delusion is not always present or the relevant clinical feature and – in some jurisdictions at least – there is unsettled opinion on whether “rational belief” is a legiti-

mate legal standard. Without a more detailed and tailored understanding of how DMC is affected by mood disorders, it is difficult to avoid the problems of arbitrariness in assessment of decision-making ability or a reliance on “outcome-based” assessments.

We suggest that our temporal understanding of decision-making abilities in affective disorder might be one way of helping to break through the impasse regarding “cognitive bias” and “outcome bias.” In applying this understanding, the assessor is not focused on whether particular values and beliefs are driving the decision-making process or whether the decisional outcome itself is rational or valuable. Rather, the assessor focuses on whether a distinctive temporal phenomenology is occurring or not. If it is occurring, serious distortions of the risk/benefit appraisal of treatment will result which may constitute an inability to “use or weigh,” or “appreciate,” treatment information.

We found that in our data it was not difficult to find evidence of the temporal *abilities* (in the non-severe depression cases) and that evidence for the temporal *inabilities* in the severe depression or mania cases was often surprisingly clear once it was understood what to look for. Borderline or marginal temporal abilities did not emerge as a major theme in our data. This moderates some of the possible concerns that because affective symptoms are a matter of degree, temporal abilities will be too and the problem of imposing arbitrary cut-off points on borderline, or marginal, cases will arise. The changes in temporal abilities across non-severe to severe depression suggested that distinct qualitative shifts are possible.

Clinical Relevance of the Research

Our temporal understanding of decision-making ability in affective disorder is based on a notion of distortion of future experience with loss of evaluative differentiation and breaks in inductive reasoning. Given that this understanding stems from dynamic clinical processes and patient experience rather than legal definitions, it is clinically favourable. Furthermore, its focus on the decision-making process rather than outcome makes it compliant with DMC law. We hope, therefore, that this temporal understanding can assist in bringing more detailed structure to assessments of DMC for treatment in affective disorder, help to identify relevant tipping points in decision-making ability/inability, and reduce arbitrary or idiosyncratic values and rationality-based assessments. Future work will have to address the translatability of this understanding to practical assessment tools and the acceptability of it to policymakers and judges.

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Statement of Ethics

The study was approved by the Camberwell and St Giles Research Ethics Committee, and the rules of the Mental Capacity Act 2005 regarding research were followed.

Disclosure Statement

The authors have no conflicts of interest to disclose.

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References

- 1 The Mental Capacity Act 2005. Section 1(4) [last accessed 2018 Nov 15]. Available from: <https://www.legislation.gov.uk/ukpga/2005/9/contents>.
- 2 Charland LC. Decision-making capacity [Internet]. Stanford Encyclopedia of Philosophy [last accessed 2018 Apr 30]. Available from: <https://plato.stanford.edu/entries/decision-capacity/>.
- 3 Roth LH, Appelbaum PS, Sallee R, Reynolds CF, Huber G. The dilemma of denial in the assessment of competency to refuse treatment. *Am J Psychiatry*. 1982 Jul;139(7):910–3.
- 4 Bursztajn HJ, Harding HP Jr, Gutheil TG, Brodsky A. Beyond cognition: the role of disordered affective states in impairing competence to consent to treatment. *Bull Am Acad Psychiatry Law*. 1991;19(4):383–8.
- 5 Gutheil TG, Bursztajn H. Clinicians' guidelines for assessing and presenting subtle forms of patient incompetence in legal settings. *Am J Psychiatry*. 1986 Aug;143(8):1020–3.
- 6 Culver CM, Gert B. The inadequacy of incompetence. *Milbank Q*. 1990;68(4):619–43.
- 7 Kim SY. Evaluation of capacity to consent to treatment and research. New York (NY): Oxford University Press; 2010.
- 8 Grisso T, Applebaum PS. Assessing competence to consent to treatment. New York, Oxford: Oxford University Press; 1998.
- 9 Owen GS, Szmukler G, Richardson G, David AS, Raymont V, Freyenhagen F, et al. Decision-making capacity for treatment in psychiatric and medical in-patients: cross-sectional, comparative study. *Br J Psychiatry*. 2013 Dec; 203(6):461–7.
- 10 Law Commission. Mentally incapacitated adults and decision-making: medical treatment and research: Consultation Paper No 129. London: HMSO; 1993.
- 11 Owen GS, Freyenhagen F, Richardson G, Hotopf M. Mental capacity and decisional autonomy: an interdisciplinary challenge. *Inquiry*. 2009;52(1):79–107.
- 12 Hermann H, Trachsel M, Elger BS, Biller-Andorno N. Emotion and value in the evaluation of medical decision-making capacity: a narrative review of arguments. *Front Psychol*. 2016 May;7:765.
- 13 Jaspers K. *General psychopathology*. Manchester: Manchester University Press; 1963.
- 14 Lewis A. The experience of time in mental disorder. *Proc R Soc Med*. 1932 Mar;25(5):611–20.
- 15 Minkowski E. *Lived time: phenomenological and psychopathological studies*. Evanston: Northwestern University Press; 1970.
- 16 Binswanger L. On the manic mode of being-in-the-world. In: Straus E, editor. *Phenomenology: pure and applied*. Pittsburgh (PA): Duquesne University Press; 1964. p. 127–41.
- 17 Ghaemi SN. Feeling and time: the phenomenology of mood disorders, depressive realism, and existential psychotherapy. *Schizophr Bull*. 2007 Jan;33(1):122–30.
- 18 Wyllie M. Lived time and psychopathology. *Philos Psychiatry Psychol*. 2005;12(3):173–85.
- 19 Cutting J. *Principles of psychopathology*. Oxford: Oxford Medical Publications; 1997.
- 20 Stanghellini G, Ballerini M, Presenza S, Mancini M, Northoff G, Cutting J. Abnormal time experiences in major depression: an empirical qualitative study. *Psychopathology*. 2017; 50(2):125–40.
- 21 Bschor T, Ising M, Bauer M, Lewitzka U, Skerstupeit M, Müller-Oerlinghausen B, et al. Time experience and time judgment in major depression, mania and healthy subjects. A controlled study of 93 subjects. *Acta Psychiatr Scand*. 2004 Mar;109(3):222–9.
- 22 Owen GS, Freyenhagen F, Hotopf M, Martin W. Temporal inabilities and decision-making capacity in depression. *Phenomenol Cogn Sci*. 2015;14(1):163–82.
- 23 Martin W, Gergel T, Owen GS. Manic temporality. *Philos Psychol*. 2018 Aug;32(1):72–97.
- 24 Owen GS. Psychopathology and law. In: Stanghellini G, Broome M, Fernandez A, Fusalari P, Raballo A, Rosfort R, editors. *The Oxford handbook of phenomenology and psychopathology*. Oxford: Oxford University Press; 2017.
- 25 Smith JA, Flowers P, Larkin M. Interpretative phenomenological analysis: theory, method and research. Los Angeles: Sage; 2009.
- 26 Owen GS, Freyenhagen F, Martin W, David AS. Clinical assessment of decision-making capacity in acquired brain injury with personality change. *Neuropsychol Rehabil*. 2017 Jan; 27(1):133–48.
- 27 Owen GS, David AS, Richardson G, Szmukler G, Hayward P, Hotopf M. Mental capacity, diagnosis and insight in psychiatric in-patients: a cross-sectional study. *Psychol Med*. 2009 Aug;39(8):1389–98.
- 28 Owen GS, Ster IC, David AS, Szmukler G, Hayward P, Richardson G, et al. Regaining mental capacity for treatment decisions following psychiatric admission: a clinico-ethical study. *Psychol Med*. 2011 Jan;41(1):119–28.
- 29 Bursztajn HJ, Gutheil TG, Brodsky A. Affective disorders, competence, and decision making. In: Gutheil TG, Bursztajn HJ, Brodsky A, Alexander V, editors. *Decision making in psychiatry and law*. Baltimore: Williams & Wilkins; 1991.