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Temporal Delusion

'Duality' Accounts of Time and Double Orientation to Reality in Depressive Psychosis

Abstract

This paper argues that duality accounts of time, as exemplified by Henri Bergson's, Edmund Husserl's and John McTaggart's ideas, parallel the decomposition of temporal experience in depressive psychosis into objective and subjective dimensions of time. The paper also proposes to comprehend the full-fledged depressive temporal delusion, in which the subjective flow of time comes to a standstill via the idea of a double orientation to reality characteristic of schizophrenic delusions. In the depressive temporal delusion a person claims that time is not moving while simultaneously her cognitive orientation in temporal surroundings remains largely unaffected, and hence the double orientation. The juxtaposition of temporal experience in depression with the temporal disorientation in dementia enables to situate the depressive delusion regarding the flow of time in the middle of a proposed scale of the disintegration of normal temporal experience.

Keywords: depression, dementia, phenomenology, temporality, lived time, world time, Bergson, Husserl, McTaggart

'Time passes, life is a stream, etc., so people say.

This is not what I find: time stands still, and so do I'

Søren Kierkegaard (Kierkegaard 1987, p.26)

1. Introduction

This paper argues that duality accounts of time, as exemplified by Henri Bergson's, Edmund Husserl's and John McTaggart's ideas, parallel the decomposition of temporal experience in depressive psychosis into objective and subjective dimensions of time. The notion of duality accounts of time indicates those philosophical conceptions of temporality that begin with distinguishing two dimensions or two types of description of the phenomenon of time. In philosophical reflection, the decomposition of temporal experience is not pathological and it is intentionally employed for the sake of an insight into the nature of time. However, its unintended depressive form may indicate an estrangement from reality. The core of such an estrangement in depressive disorder can be rendered intelligible precisely by bringing the issue of temporal experience to the fore. In depression, a subjective temporal flow does not simply slow down but the normally unified temporal experience, in which apprehension of world time is part and parcel of how time is lived, breaks apart into its objective and subjective counterparts. Further on, this breaking apart may take the form of the delusion of time standing still. Such a delusion is never fully acted upon, and, therefore, shares some qualities with Karl Jaspers' idea of a double orientation to reality that has been traditionally associated with schizophrenic psychosis.

The paper begins with a brief description of three traditions of philosophical reflection on time initiated by Bergson, Husserl and McTaggart. It concludes by showing that these reflections structurally resemble the depressive deformation of temporal experience. The temporal experience in depression is presented following past and contemporary psychopathological literature. The focus of this presentation is the psychotic experience of the standstill of the subjective flow of time, termed here the temporal delusion. In addition, and for the sake of further argument, the paper discusses the phenomenological

underpinnings of orientation and disorientation in time. It is claimed that a normal orientation in time presupposes conscious cognitive dialectics of tensed and untensed temporalities, and consists of a steady and active synchronization of lived present moment with world time, thanks to which they are intrinsically connected. This claim allows to create a scale of disintegration of normal temporal experience in depression and other mental disorders further on. The juxtaposition of temporal experience in depression with temporal experience in dementia, where the trouble is the temporal disorientation, enables to situate the depressive delusion regarding the flow of time in the middle of this scale. The final sections of this paper propose to interpret the psychotic depressive experience of the frozen passage of time via the idea of a double orientation to reality as well as provide some empirical validation of this point.

2. Three philosophical traditions of temporal dualism

All three major 20th century traditions of philosophical studies of time, initiated by Bergson, Husserl, and McTaggart (Turetzky, 1998) began with distinct duality accounts of this phenomenon. In his later famous lectures on the consciousness of internal time (originally delivered in 1905), Edmund Husserl presented the lightest form of these dualisms. Husserl juxtaposed 'pre-empirical' or 'phenomenological' time with 'objective' or 'world' time (Husserl, 1991). Husserl by no means detested nor negated the objective time. He merely suspended its existence from a phenomenological standpoint in order to focus on time-constituting consciousness. The goal was to reflect on the perceptual act itself as well as self-awareness underpinning this perceptual act. In his early work on the consciousness of internal time, Husserl discovered that any act of perception, including the perception of a temporal object, is itself temporal, and has a triple intentionality directed towards immediate past, present and future. Nevertheless, the dualism remained in Husserl's account in the sense that he suspended the existence of world time.

¹ Husserl did allow for the possibility to inquire into correspondence between objective time and time posited as objective in consciousness, that is to empirically compare durations of objective temporal intervals with the consciousness of those intervals. He also explicitly stated that this is not a task for phenomenology (Husserl, 1991, p. 4).

Henri Bergson, in his *Time and Free Will: An Essay on the Immediate Data of Consciousness* (originally published in French in 1888) was much more radical in this respect (Bergson, 1960). Bergson famously not merely distinguished but presented an antithesis of the so-called pure duration and what he called homogeneous time assimilated to space (that is time as measured by the clocks). Arguing against the Western tradition of quantification of time, Bergson opposed clock time and treated it as inferior derivative of original, pure, and non-measurable duration.

Bergson's and Husserl's dualisms are overlapping to an extent since both thinkers are assuming the perspective of human experience and present a hierarchical structure of time in which time as measured by the clocks is secondary to time-constituting consciousness or duration. McTaggart's dualism, on the other hand, concerns merely two ways in which time can be ordered. In his 1908 influential paper *The Unreality of Time*, John McTaggart first presented a dualism of the A and B series of time, and then wholly denied its very existence (McTaggart, 1908). McTaggart showed that events in time, as observed by human spectators, always form both of these series. Leaving the spectators aside, time can be arranged into a series of permanent distinctions of earlier and later (the B series) and a series of impermanent distinctions of past, present and future (the A series) understood as its intrinsic properties. Since for McTaggart change is essential to time, and since there is no change within the permanent relations of the B series only (2017 will be forever earlier than 2018), the B series must be insufficient for the reality of time. A key objection is that the B series incorporates change in the narrower sense of objects bearing different properties earlier and later, even if events do not change their position. McTaggart, however, was concerned with a deeper notion of change of intrinsic properties (such as a blue item becoming a green item), which implies the dynamism that only the A series can provide. Hence, he argued, there can be no time without the A series, within which the temporal status of the same event changes from being future to present and past. However, the A series is inherently contradictory, McTaggart maintained, and so time cannot be real.

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Past, present, and future are incompatible, intrinsic determinations, and no event can simultaneously bear these three characteristics. If one claims that it bears them only successively, one already presupposes the existence of the A series, and, hence, falls prey to a vicious circle. Since the B series is insufficient for the existence of time and the A series is self-contradictory, time itself is unreal.

While Bergson (and, to an extent, Husserl) argued in favor of distinct forms of duration, McTaggart found no way out of the supposed conceptual contradictions and proclaimed the non-existence of time. If we introduce a living spectator into the picture, this claim would be clearly delusional. Indeed, Broome (Broome, 2005) spoke of the psychopathological 'McTaggart's syndrome, which he posited as a delusional belief (a subtype of the Cotard's syndrome). McTaggart's syndrome consists of the denial of the existence of time and of change in the first-person experience. However, while McTaggart claimed that time is unreal because change, which neither of the series can provide, is essential to time, his theory must not necessarily imply that time does not pass in human experience – it could well be an experiential illusion. McTaggart also spoke of the C series, which could account for the illusion of the temporal succession in an atemporal reality. The C series contains an order without a change, and consists of permanent relations, which are not temporal and have no direction. What we perceive as events in time could in reality belong to a non-temporal series. Time would be merely a deceptive form of perception. Therefore, what is is meant further on by the McTaggart's syndrome does not exactly match McTaggart's metaphysical notion and simply means that time does not pass from the perspective of the beholder. In other words, this claim concerns what has been termed the 'upper level' flow of time, which entails a moving present and the past-present-future distinction (Gruber, Bach and Block, 2015). We assume that the depressive patients' reports of timelessness refer to the lack of the subjective temporal flow only and should not be read as metaphysical statements on whether time is felt not to exist as such, despite passing in first-person experience. For McTaggart, on the other hand, the unreality of time means that time does not pass in the metaphysical sense, while still everything is observed from the perspective of subjective moving present (as in the atemporal block view of reality).

McTaggart clearly presented the most radical of the three philosophical conceptions of time, and the psychopathological notion of McTaggart's syndrome (which does not literally match McTaggart's philosophical view) will be used further on as a synonym of the temporal delusion in depressive psychosis. The paper will show that the theoretical moves of all three philosophers who disconnect, to a different extent, one time from the other, resemble the structure of various stages of deformation of temporal experience in depression. An extreme form of this experience is the psychotic sense of the non-existence of the subjective passage of time.

3. Temporal structure of experience in depression

The McTaggart's syndrome, the delusion of time standing still, may also appear in other mental disorders, such as schizophrenia. In the latter case, self-disturbances presumably originate in disruptions of non-conscious and automatic levels of temporal processing, that is bottom-up processes underlying the conscious experience of time. This thesis is supported by experimental data on the unconscious processing of stimuli (Giersch and Mishara 2017). As a result, people suffering from schizophrenia are "stuck" in time at the milliseconds level and their self may appear "frozen". In phenomenological terms, the disruptions of what Husserl termed pre-affective passive synthesis of stimuli create gaps in retentional-protentional continuity of their conscious experience. We cannot on principle exclude that similar mechanisms are responsible for the anomalous experience of time in depression. However, this paper entertains the idea that the depressive disappearance of the flow of time is a consequence of a combination of organic slowing down and conscious cognitive processes concerning time. Moreover, the sense of timelessness is the characteristic feature of major depression but it is not the characteristic feature of schizophrenia, where the fragmentation of temporal experience is much more common (Stanghellini et al., 2016). It is impossible to state precisely in how many cases of depressive disorder the McTaggart's syndrome appears, but one phenomenological study found abnormal time experiences in 37 out of 100 patients with major depressions, 14 of which felt time slowing down, and 17 experienced the absence of its flow (Stanghellini et al., 2016, p. 51). Before we address the special case of full-fledged temporal psychosis, let's briefly present the overall temporal structure of experience in depression in order to better situate the delusion in question. Since psychiatric boundaries of depression are opaque and historically changing, while temporal experiences in major depressive disorder are heterogeneous and may take several different forms, not all of them characteristic of depression only (Ratcliffe, 2015), the following sketch is necessarily merely ideal-typical (as defined by Max Weber).

As far as quantitative experience of time is concerned, depressed people suffer a dilation of time as both first-person accounts and time estimation tasks supposedly confirm². When it comes to qualitative changes, having 'more' time at one's disposal is far from being pleasant, and indeed negative emotions in general, such as boredom, can be related to time dragging (Wittmann, 2009). Boredom is associated with a low load of information processing. A static informational environment (analogical to a sensory deprivation) that contains few contextual changes results in an allocation of more attentional resources to timing (Zakay, 2014). In consequence, in prospective judgment one experiences longer durations (i.e. slowing), and shorter durations in retrospection (i.e. acceleration). Translating this quantitative model into structural changes, we may speculate that prospective longer durations shape expectations of the future as more 'extended' and, hence, slowed down as well. Time may have an even more profound impact on emotions when they lose their usual positive and negative significance and begin to be experienced less strongly (Gallagher, 2012).

Depression profoundly modifies one's experience of the world. It involves a distortion of affective responsiveness to the world and changes in elementary existential feelings that

² Regarding the latter, we may only pinpoint the rate at which time subjectively passes since all experimental studies of time perception are based on the binary (B series) model of homogenized time. It means that from the quantitative perspective we cannot access the phenomenological (structural) core of temporal consciousness nor any feelings associated with the tempo of passing time.

provide a sense of reality (Jacobs et al., 2014). The structural alternations of temporal experience in depression include loosing practical significance of one's idea(Ratcliffe, 2015). The feelings of detachment and alienation from the world, impossibility to conceptualize and articulate any long-term projects – which Matthew Ratcliffe calls the loss of 'teleological time' - become overwhelming. There is a collapse of hope and concomitant inability to imagine and specify the future, and even a denial of having a future at al(Owen et al., 2015). When no significant possibilities can be actualized, the space of the future narrows down. Thomas Fuchs contends that this is a result of the weakening of conative-affective dynamics of mental life. Intersubjectively, it involves desynchronization from the biological and social environment, which manifests itself as a temporal retardatio(Fuchs, 2001; Salvatore et al., 2012). Furthermore, there is a constant preoccupation with the personal past. Before the sense of the flow of the passage of time is affected, future potentialities narrow, the past becomes 'heavy', and the 'could-havebeen done' gains significance (Straus, 1928; Gebsattel, 1954; Fuchs, 2001; Schlimme, 2013). Crucially, with the slowing down, the dominance of past over future, the erosion of meaning, the freezing of possibilities for action, and desynchronization, experienced time may take a cyclic instead of a linear for (Broome, 2005; Ratcliffe, 2015). Ultimately, these existential, structural changes may amount to the feeling of time coming to a standstill.

Erwin Straus illustrates such a boundary case with delusional utterances of his depressive patients: 'time does not move at all'; 'all is timeless'; 'time is nothing to me' (Straus, 1947). One contemporary patient states: 'time is immaterial to me during a depressional episode' (Slaby et al. 2013, p. 49). Many scholars recognize the fact that 'depression is atemporal' (Solomon 2001, p. 55) or involves a sense of 'a-temporality' (Jacobs et al., 2014). Not only the future seems far away and the past far behind, but time itself is standing still (Nosachev, 1992). There are several metaphors that give an account of this experience. One is of time being 'frozen' and 'arrested' (Slaby, Paskaleva and Stephan, 2013). Another is of an 'infinitely stretched out and inert' now (Svenaeus 2013, p. 23). These metaphors signify a total collapse of the temporal structure. The spatial metaphor of perceptual flatness in depression points towards the same phenomenon since the lack of depth is a spatial

counterpart to the lack of temporalization (Gaebler et al., 2013). Fuchs hypothesizes that a frozen temporality is characteristic of a depressive delusion in general, in which the self becomes totally objectified, and a transcendence of the present state seems infinitely impossible (Fuchs, 2013a).

According to one appealing hypothesis, this experience marks the limit of the functioning of our cognitive timer (Glicksohn, 2001). Glicksohn proposes that the number of subjective time units (intentional aspect) and their size (extensional aspect), which are the function of the interplay between arousal and attention, create the apparent duration of time. When the lack of external arousal couples with an increased internal attention (when one is highly absorbed in the contents of one's experiences), a smaller number of subjective time units becomes combined with their bigger size. An outcome is a slowed experience of time and, ultimately, the sense of being in a timeless state.

Wyllie postulates that the feelings associated with such a boundary case amount to an 'eternal suffering' (Wyllie, 2005). It is eternal precisely because there is no sense of time passing, and, therefore, no anticipated escape from the atemporal predicament. However, the statement 'all is timeless' does not represent the revelation of some metaphysical nature of time. It is not an experience of eternity in the theological or philosophical sense, one recalling the mystical experience of *nunc stans* but an experience of an unmovable present and of a standstill of meaning. Unlike the mystical experience, it is not liberating, but oppressive and confining (Everett, 2013). Metaphorically speaking, it is the experience of a 'living death" (Kristeva, 1989), all the more so terrifying since, as we shall see, time still moves on in the world.

As the Zakay's hypothesis presented earlier explains, despite the slowing down, a certain hyper-reflexivity regarding timing (analogical to the aforementioned increased internal attention) might appear as if to compensate for the loss of conation. Such was the famous case of Viktor Emil von Gebsattel's chronophobic patient, who experiences world time as disconnected from her lived becoming (Gebsattel, 1954). The patient is hyper-focused on

the objectified 'nows', which are passing painfully despite her self being stuck in time. To gain a better understanding of such temporal hyper-reflexivity, let's briefly address the issue of orientation and disorientation in time.

4. Orientation and disorientation in time

Time can be essentially comphrehended by two accounts, which, following McTaggart, are often termed the A and the B series. In lived experience, one moves along McTaggart's A series, which is more fundamental than the B series and automatically involves the latter (since past and future are necessarily earlier and later than the present). Beyond the A series, so to speak, pre- or un-conscious as well as pre-reflective or implicit temporal processes take place (Martin et al. 2014; Vogeley & Kupke 2007), in which the dimensions of past, present, and future appear indiscriminately. The aforementioned disruptions of automatic temporal synthesis responsible for the schizophrenic self-disturbances happens at this level (Giersch and Mishara 2017). Past, present, and future become explicit "objects" of perception only when they are consciously reflected upon (Fuchs, 2007, 2013b). Further on, they may be concretized on a numbered scale thanks to the consensual schemes of the clock. In other words, cognitive orientation in time requires the conceptualization of the lived stream of the present (with its retentions and protentions in the implicit mode of conscious experience and with its dimensions of past and future in the explicit mode of experience) through the schemes of the public order of clocks and calendars. This conceptualization involves a subsumption of the former under the latter³.

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³ It is useful to recall the heuristic distinction between perceptual and conceptual time scales in this terminological context (Broadway et al., 2015). Whereas the perceptual scale concerns time perception at milliseconds to seconds range, where working memory and anticipatory attention (concepts resembling Husserl's [1991] retention and protention) are mutually entangled, the interplay of intentional remembrance and planning (concepts resembling Husserl's secondary memory and secondary expectation) employs the conceptual scale. This distinction can be seen in analogy to the aforementioned implicit and explicit temporality. However, explicit temporality understood as denoting merely an awareness of the difference between previously indiscriminate past, present and future without their exact location is pre-conceptual. Temporal denominations such as 'today' or 'tomorrow' are not concrete and they share the qualities of both orders of time, that is subjective time and world time, which, in contradistinction to subjective time, is public (Moskalewicz 2017b). Comprehending a particular fragment of any of these three dimensions in terms of the clock specifies their concrete extensions and brings us fully to the public conceptual time scale.

Such conceptualization enables answering the most ordinary of questions 'what time is it now?', which demands bringing the two orders of time closely together. Introducing conceptual time scales also enables mentally projecting oneself backward and forward in time It is only here that it makes sense to speak about the popular ego-moving and time-moving perspectives since research questions about 'next Wednesday' or '5 pm tomorrow' presuppose a basic ability to conceptually orient oneself in time (Boroditsky and Ramscar, 2002; Núńez, Motz and Teuscher, 2006). One may certainly think of and imagine past and future without concretizing their exact position on a time scale (as in mental time travel) but then one certainly does not conceptually *orient* oneself *in* time.

Hence, even if there is a conceptual gap between tripartite lived experience and binary schemes of the clock used to comprehend world time, from the perspective of comprehensive human experience the very distinction is secondary. Martin Heidegger, following Husserl's steps, was apparently wrong in devaluing what his teacher merely suspended, that is time as measured by the clocks (Heidegger, 1962). In our daily life, the two orders of time fit closely together. The measurements of the clock constitute our binary language of time and enable our orientation in world time, which is part and parcel of any ordinary human experience (Moskalewicz, 2017b).

Orientation in time is a constant, conscious and cognitive dialectics of tensed and untensed temporalities – it consists of their steady and active *synchronization*. However, even if conscious, this process is so minute that it seems to usually escape our reflective notice (in the sense of a second order reflection of perceiving oneself as being conscious of world time). The depressive temporal hyper-reflexivity is therefore an amplification of the ordinary cognitive procedure of orientation in time. But it reveals an interesting puzzle that we encounter when focusing closely on the nature of the psychotic experience of the

⁴ Synchronization with bio-social environment has the unconscious, neurobiologically processed aspect of following circadian rhythms, but it also has the cognitive aspect of co-orientation in public time, such as when we agree to meet tomorrow at 5 pm. Artificial clocks and calendars mediate the latter type of synchronization.

standstill of time. Even if it is possible to experience timelessness and, perhaps, explain this feeling cognitively, the depressive patients who suffer from a characteristic psychotic deformation of their subjective time are still able to successfully locate themselves in world time⁵. Moreover, even if unconsciously desynchronized at the bio-social level, their capabilities of measuring time remain relatively unaffected (see section 'Empirical evidence' below). In other words, severely depressed patients retain a surprising degree of temporal agility concerning world time, and they are able to navigate through the clocks and orient themselves very well conceptually (Owen et al., 2015).

On the other hand, we observe that patients with dementia who suffer from an age or world time disorientation do not have to be deeply affected as far as their elementary ability to think about and imagine past and future is concerned (Summa and Fuchs, 2015). It follows that the very limited comprehension of world time may coexist with the relatively normal experience of the passage of time. Reversely, the disfigured experience of time, in the most severe conditions coupled with the temporal delusion, may coexist with an accurate orientation in world time. Possibly, the neural underpinnings of these two abilities are different, one responsible for the abstract (conceptual) and the other for the more fundamental and not explicitly conceptually mediated experience. However, the two abilities must also be somehow connected in order to enable the aforementioned temporal dialectics of the tensed and untensed accounts. Therefore, even if the subjective flow of time, which is affected in depressive delusion, is categorically different from cognitive orientation in the world, the two are normally integrated in how time is lived. Their disintegration is a sign of a mental trouble.

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⁵ Analogically, pre-conscious desynchronization in schizophrenia must not necessarily be accompanied by conscious cognitive conceptual temporal disorientation.

5. Varieties of temporal dualism in human experience

Taking the foregoing hypothesis into further consideration, let's distinguish five mutually exclusive ideal-typical possibilities of the relationship between these two experienced aspects of time on a gradual scale of disintegration.

- 1) Time normally lived consists of both tripartite (past-present-future) and binary (earlier-later) distinctions. Conscious, but minute oscillations between these two orders of time are constantly taking place, becoming more explicit when we pinpoint the exact hour and minute of the day by answering the question 'what time is it now'? (Moskalewicz, 2017b).
- 2) Both orders of time operate but are somehow disconnected. One is capable of distinguishing the past, present, and future as well as pinpointing the position of the now on a clock. This disconnection is the predicament of von Gebsattel's chronophobic patient, who still experiences the passage of time, though her obsessive thoughts about it (termed earlier temporal hyper-reflexivity) make her life unbearable. Husserl's and Bergson's temporal dualisms, which deny neither the subjective flow of time nor the existence of world time, mirror this disconnection theoretically. However, both philosophers focus upon the 'internal' dimension or 'duration', which for them is more original than objectified world time.
- 3) The subjective tripartite order of time breaks apart. One experiences not just a slowing down of time, but the unreality of its passage. Despite this fact, one is still capable of a world time orientation, except that this orientation lacks 'depth' (to use a spatial metaphor). Time appears 'flat', an aspect of the general perceptual flatness of the world (Gaebler et al., 2013).
- 4) One lives the passage of time and distinguishes the past, present, and future while being concomitantly disoriented in world time. This situation takes place in dementia when one's temporal disorientation is not paired with the disintegration of the flow of time, even if one is incapable of locating particular memories or the time of the day adequately on a time

scale. It means that despite the lack of conceptual temporal orientation, the minimal sense of self and episodic temporal awareness (that enables to understand terms such as 'today' or 'tomorrow') are left unaffected (Summa and Fuchs, 2015).

5) A total disintegration of temporality occurs, as in the severe cases of schizophrenia. The unconscious processing of time is impaired resulting in the implicit temporal fragmentation of experience and the loss of the minimal self (Martin et al., 2014). The very distinction between the past and the future ceases to make sense. Simultaneously, one is disoriented in world time and incapable of any binary clock time temporal calculations.

Case number three represents the McTaggart's syndrome – the freezing of the passage of time in depressive psychosis. The final section of this paper gives it a closer attention and proposes to comprehend it through the notion of double orientation.

6. The standstill of time and double orientation

The idea of a double bookkeeping was originally described by Bleuler in regards to schizophrenia as the co-existence of realistic and psychotic attitudes (Henriksen and Parnas, 2014). Jaspers called this feature of schizophrenic delusions a 'double orientation' (Jaspers, 1963). A person with schizophrenia holds two mutually exclusive attitudes towards the world, being simultaneously certain and uncertain about her delusions and reality (Schwartz and Wiggins, 1992). The concept of double orientation may be used to disconfirm the idea that delusions are false beliefs. If they were, the argument goes, one would certainly act upon them, whereas schizophrenic delusions are behaviorally inert. One does not simply fail to act upon them, but one's motivation to take action is impaired by lowered emotional components having to do with the anticipation and recall of pleasure

⁶ The experience of common illness, in which a living body [Leib] splits and becomes a resisting object [Koerper] is a spatial counterpart to the temporal experience of objectification of time of von Gebsattel's patient (case number two). On the other hand, Cotard's delusion that may develop in depressive psychosis is a spatial parallel to the experience of the unreality of the passage of time (case number three). In that case, a 'corporealization' (Fuchs, 2005) of one's body reaches its ultimate stage. As Kristeva contends, in depression one 'lives a living death' (Kristeva, 1989). The statement 'I am dead' metaphorically corresponds to the statement 'time does not move at all' in the sense that death marks the end of time.

(Bortolotti and Broome, 2012)⁷.

If we heuristically treat the statement 'all is timeless' as a delusional one, we find out that (at least to an extent) it is not a false belief. Acting on the basis of the temporal delusion would have to imply refraining from acting at all. Any action undertaken necessarily in time would contradict the very content of this delusion. Hence, in depressive temporal delusion there are two temporal worlds. In the subjective, psychotic one, time does not flow, and in the conventional, public one, the framework of clock time still operates so that an accurate understanding of temporal ordering of world events remains untouched. Putting it differently, a patient somehow 'knows' that his experience of the standstill of time is false⁸. Even if he says that there is no future, he is still aware that the next day will take place, and acts, in most of the cases, as if it would. Hence, real world experiences contradict the delusion that must be simultaneously believed and disbelieved. The future is there and time has not really stopped. Yet, the delusion has a value since, even if not fully abstaining from actions, the patient may limit their scope. It is true that in depression agency is impaired and a sense of incapacity and inability is overwhelming (Slaby, Paskaleva and Stephan, 2013), but it is quite rare that no action is undertaken at all⁹. If the passage of time was not real, then nothing could be left of the intrinsically temporal human experience. The cognitive conceptualizations of world time via the categories of the clock would themselves be impossible. Hence, the atemporal and temporal attitudes towards the world co-exist, merge, and may even get confused. The boundary between them is not clear-cut.

⁷ The concept of double-bookkeeping can be fairly criticized. Bortolotti claims that since there is a continuity between normal and abnormal cognition, a double orientation may affect both delusional and normal beliefs, while many full-fledged delusions are in fact action guiding (Bortolotti, 2011). Even if this is the case, it does not preclude the possibility of utilizing this concept in an unorthodox way in order to better our understanding of the experience of the standstill of time in depressive psychosis, and not in schizophrenia.

⁸ Erwin W. Straus' interview with a depressive psychotic patient illustrates this paradox very well (Moskalewicz, 2017a).

⁹ For example, patients denying having a future are still moving and acting (Owen et al., 2015).

We are dealing with an admittedly profound version of a double orientation here. It does not refer to any empirical facts in the world,

but to the whole underlying framework of subjectively grasping the world, that is temporality (Sass, 2014). The very concreteness of world time, a concreteness that may be successfully acted upon in daily life, permeates subjective experience and explicitly contradicts the idea of the standstill of time, all the more so since using the categories of the clock *presupposes* that time subjectively moves on.

Two reasonable objections can be raised against the foregoing argument. The first is that temporal experiences in depressive states may be abnormal but they are certainly not delusional. This is partly right, but what has been argued for does not hold true for the whole spectrum of depressive experiences of time, but concerns only a special boundary case of the standstill of the felt passage of time.

The second objection is that such a standstill is never absolute – it only concerns the subjective flow of time, and not the temporal orientation in world time, while regarding the former it can never be total for that would exclude the possibility of the latter. Even if time is experienced as not passing, such an experience cannot be directly compared to any world-related delusion that we normally associate with delusional states. This second objection is actually correct. But this is precisely why we are speaking of a profound version of a double orientation here, one that concerns the very conditions of experiencing the world. Hence, the double orientation is not exactly the same as in the case of most schizophrenic delusions. As argued before, even if world time and subjective time are categorically separate, they merge in normally lived time. Here, they no longer merge, but split, and the passage of time is no longer experienced.

Empirical evidence

The paper argued that orientation in world time by the means of the clock, an orientation surpassing immediate and episodic existence, is a necessary but not sufficient condition for the comprehensive experience of time. It is necessary since if this model of temporalization

is affected, one is not even able to imagine an event *next week*. ¹⁰ It is not sufficient since one may orient oneself in the temporal surroundings, assess the distance between today and other days as well as the duration of events correctly, while simultaneously suffer an unpleasant disfiguration of the passage of time and even a delusion concerning its very flow.

In addition to the theoretical argument presented above, there is strong empirical evidence confirming this paradox. A meta-analysis of time perception research in depression spanning almost forty years and conducted in the paradigms of verbal time estimation, time production, time reproduction, and duration discrimination found no significant deviations in depressed subjects from the healthy norm, despite reported feelings of time passing more slowly (Thönes et al., 2015). Since the studies covered in the meta-analysis also employed paradigms that don't require explicit conceptualization of time by the means of the clock, the lack of significant deviations concerned the preconceptual perceptions as well.

However, while the ability to assess the duration of external events remained largely untouched and uninfluenced by the intervals' range, the subjective feeling of time slowing down was still pervasive¹¹. Some particular studies even found a degree of depressive realism effect, that is a higher accuracy of time estimations, despite the subjective sense of time slowing down (Kornbrot et al., 2013). Most importantly, these studies confirm that temporal distortions in depression have little to do with the cognitive failure of temporal orientation and the lack of precise application of the concepts of clock time¹². Moreover, it

¹⁰ This claim only apparently contradicts what was said earlier about dementia, namely that an elementary ability to think about and imagine past and future does not require cognitive orientation in time. However, the former thesis only concerned the existential dimension of temporal experience of past and future in this condition, and not their calendar positions. Certainly, from the point of view of contemporary strict social temporal demands, dementia creates an even greater number of problems. If these social demands of clock time were more relaxed, dementia could actually have less adverse consequences.

¹¹ The only exception to these findings was the underestimation of time in production tasks concerning long durations and overestimation concerning short durations.

These findings inadvertently support Fuchs' thesis on the non-cognitive, affective-conative retardation in 17

appears that preconceptual perceptions are adequate as well, despite the aforementioned explicit sense of time slowing down. By implication, this would mean that the double orientation to time works already at the pre-cognitive level, where the more-less adequate judgments coexist with the sense of slowing. This would explain why the conceptually mediated judgments of world time can be adequate, since the pre-cognitive level (the background sense of the flow of time) preconditions all conceptual operations. However, since the studies did not concern depressive psychosis per se, we may only speculate that in the case of the passage of time not only slowing down, but fully stopping, the effects described would be parallel.

8. Conclusion

An extreme form of the abnormal experience of time in depression, the sense of the standstill of time, primarily affects the tripartite order of the subjective flow of time. Simultaneously, the orientation in world time – as proven by time perception research, qualitative studies, and behavior of patients stays relatively intact. It follows that the feeling of timelessness is never total and never fully acted upon, which is the core of a double orientation characteristic of (at least some) schizophrenic delusions. Due to the fundamental character of temporal experience, which, phenomenologically speaking, preconditions all delusional and non-delusional object-related beliefs and perceptions, the temporal double orientation in depressive psychosis does not share all the features with its schizophrenic double-bookkeeping counterpart. However, the temporal delusion is (to an extent) behaviorally inert analogically to a schizophrenic delusion. It is also cognitively inert – the most conspicuous aspect of the cognitive inertness being the retained ability to apply the concepts of clock time in an adequate manner ¹³.

depression (Fuchs 2001; 2013).

¹³ An obvious limitation to the foregoing claims is that the psychotic cases of depression are far rarer than the non-psychotic ones. We do not know exactly how often the delusion of the standstill of time in depressive disorder actually takes place. We may surmise that it roughly occurs in one third of the cases (Stanghellini et al., 2016). Unfortunately, quantitatively oriented studies of time perception in depressive states do not lead

We find a philosophical counterpart to such a double orientation in the work of three classic philosophers of time who provide us with the very dual distinctions utilized in this analysis, namely, Husserl, Bergson, and McTaggart. Their reflections on time are symptomatic of the decomposition of normal temporal experience and the split into separate domains of tripartite experience and homogenized world time. A philosophical double orientation towards time consisting of a doubt in its very existence that is coupled with a desire for certainty concerning its nature is precisely what characterizes their theoretical inquiries.

Husserl's phenomenological bracketing of the reality of world time, which is taken for granted in our natural attitude, seemingly bears the closest resemblance to the situation described above as characteristic of dementia (the loss of orientation in time that does not affect the temporal perception of the world). The same could appear true for Bergson, who harshly opposes homogenized time as a derivative of original duration. However, Husserl merely suspends and Bergson only despises clock time, but neither of them wholly denies its existence. Hence, their temporal dualities rather mirror the disconnection of temporal perception of the world and orientation in time in depression. In their case, such a disconnection is a condition of possibility of an insight into the nature of both sides of time. While the two orders of time disconnect, the flow of time itself does not deform. One does not find oneself in the state of temporal delusion. McTaggart's dualism is different since it concerns two ways in which we can order time, but it still mirrors the disconnection of subjective and world time. In McTaggart's case, the double bookkeeping remains only in the sense that while his linguistic-philosophical analysis supposedly proves the nonexistence of time, his own thoughts and actions developing and substantially changing in time falsify his own theoretical stance. On the other hand, in the temporal delusion per se, time does not only split and become explicitly objectified, but the lived flow of tripartite experience ceases to be felt. The sense of reality of the passage of time disappears. Such a

us any nearer towards finding a better answer to this question.

full-fledged temporal delusion was termed the McTaggart's syndrome – a notion that transformed McTaggart's metaphysical claim concerning the non-existence of time into a first-person perception of temporal standstill.

Finally, we should not infer from these considerations that Husserl, Bergson and McTaggart have been clinically depressed or estranged from the world. However, they might have actually possessed a certain amount of melancholic disposition. Aristotle, as well as many medical representatives of humoral pathology believed that a philosophical genius, such as that of Socrates, requires an accurate dose of melancholia (Northwood, 1998). The philosophical decomposition of normal temporal experience into its 'objective' and 'subjective' counterparts certainly bears a structural resemblance to a depressive dissociation from the world. Unlike the depressive dissociation, however, it is not superimposed upon an individual from without, and it does not lead to a full full-fledged depressive temporal delusion. The philosophical disconnection of the two aspects of time is rather a meta-reflective experiential condition that enables reflection on the two sides of temporal experience, which is a condition of possibility of an insight into the nature of time. Hence, such decomposition may be sought after and intentionally and transiently employed for the sake of the philosophical study of time.

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