

## Split Mind in a Split Time

The Disturbance of Internal Time Consciousness in Schizophrenia

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Temporal experience becomes fragmented in schizophrenia. To better understand time disturbance as a symptom of schizophrenia, the present paper proposes an interpretation of the schizophrenic symptomatology in terms of Husserl's conception of internal time consciousness. Furthermore, the prevalence of time disturbance may be explained by the close relation between self and time.

### 1. Introduction

"While watching TV it becomes even stranger. Though I can see every scene, I don't understand the plot. Every scene jumps to the next, there is no connection. The course of time is strange, too. Time splits up and doesn't run forward anymore. There arise uncountable disparate now, now, now, all crazy and without rule or order" (Fuchs 2007, 233). This is the report of a subject suffering a psychotic episode in schizophrenia. It highlights the fragmented character of temporal experience in which events do not flow smoothly into each other.

Philosophers have inquired into the nature of time since ancient Greece. However, an account of our subjective temporal experience that is still widely accepted today only came with Augustine, who understood time as confined to the present moment and apprehended by the mental operations of the mind (Husserl 2019, 21; Mensch 2010, 23). For Augustine, it is in our minds that we measure time, in our memory as past, attention as present and expectation as future. Husserl, who pointed out several inconsistencies in Augustine's account of time consciousness, examined the structures of consciousness responsible for the constitution of our temporal experience. Whenever these structures function abnormally, the subject's temporal experience is disturbed. In the psychotic episode mentioned before, Fuchs (2007) considered a disruption of passive synthesis. A temporal structure of consciousness which integrates succeeding moments. Since it becomes disrupted, there is no coherence in the subject's temporal experience.

Through the method of phenomenological reduction, Husserl arrives at the object of his analysis of temporal consciousness, the immanent time of the flow of consciousness (Husserl 2019, 23). He aims to bring the constitution of apprehended time to light in order to clarify the a priori laws of time. To explain how we constitute time, Husserl examines how we apprehend an enduring object while it unfolds across its succeeding phases. Husserl proposes three moments constituting the originary temporal field, namely retention, primal impression, and protention (Bernet, Kern, and Marbach 1993, 103). Together, these moments unfold as a unity at any given instant such that consciousness extends beyond the now to grasp the temporal object. The key to temporal experience is the constant modification of the flow of consciousness. Impressions are modified into a continuous flow of retentions which are projected to the future as they sink further into the past. The double intentionality of consciousness marks the final step in the constitution of our temporal experience (Zahavi 2003, 170). Longitudinal intentionality accounts for the continuous flow of consciousness, merging its different phases and giving rise to self-awareness of the temporal flow. Whereas transverse intentionality accounts for the enduring temporal object. Together, they enable the perception of duration across the succession of elapsed phases of consciousness. In the absolute flow of consciousness, the whole of time-constituting phenomena takes place. Consciousness resembles a water stream, constantly flowing, with all its points connected to each other forming a unity, and just as the leaves and the fish float through the stream, so do the enduring temporal objects flow through absolute consciousness. However,

the importance of time-constituting phenomena may be taken for granted until our temporal experience becomes disturbed.

The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-V) characterizes schizophrenia as a psychotic disorder with two or more of the following symptoms present for over a month: hallucinations, delusions, disorganized speech, grossly disorganized or catatonic behaviour and negative symptoms such as avolition (Tandon 2013). Moreover, a common aspect of schizophrenia is the fragmentation of the self (ego) during psychosis, in which thoughts and actions are perceived as coming from another self. (Bob & Mashour 2011, 1044). Although time disturbance is not included in this definition, it has been shown to be closely related to different symptoms of the condition (Fuchs 2007; Fuchs 2013).

Husserl's account of the consciousness of time, of how we come to be conscious of time, is also an account of self-consciousness, of how we form a sense of selfhood (Mensch 2010, 23). Consciousness manifests itself in a field of temporal relations, the now-moment surrounded by memories and anticipations. The integrity of temporality is essential for a coherent sense of selfhood and identity. In temporal fragmentation, each now-moment becomes extraneous to consciousness, disassociated from the previous or succeeding moments. Without a sense of temporal experience being 'my' experience, the individual's temporal orientation and identity disintegrates. The intertwined relation between self and time may elucidate the prevalence of time disturbance in schizophrenic patients.

In schizophrenia the structures responsible for our temporal experience such as the three moments of the originary temporal field (retention, impression and protention) and double intentionality function abnormally. As a result, the temporal experience of the subject becomes fragmented, leading to different symptoms such as disorganized speech and delusion.

To clarify Husserl's contribution, it is first necessary to explain the initial conditions for Husserl's analysis of time consciousness. I will next give a more extensive elaboration of his account on how temporal consciousness is constituted, presented in his lectures of *Phenomenology of Internal Time Consciousness*. Furthermore, I will explain how Husserl's theory can be applied to time disturbance in the psychopathology of schizophrenia.

## **2. The investigation of internal time consciousness**

### **2.1 Husserl's Phenomenology of Internal Time Consciousness**

The analysis of internal time consciousness begins with Husserl's precondition for any phenomenological analysis, the phenomenological reduction, "the complete exclusion of every assumption, stipulation or conviction concerning objective time" (Husserl 2019, 22). Husserl does not intend to say that the psychological and metaphysical nature of time does not exist but that all presuppositions and expectations about time must be set aside if time is to appear by its very nature in conscious experience. What is left from this reduction is the immanent time of the flow of consciousness (Husserl 2019, 23). Husserl means to arrive at the structures of consciousness constituting the modes of objects appearing as past, present and future.

Furthermore, Husserl inquires about the foundational level of our experience of time. As Sokolowski suggests, there are three levels of temporal structure (Sokolowski 2000, p. 130). Firstly, objective time can be measured and verified, for instance, when we say the flight to Berlin lasted two hours. Secondly, subjective time represents how mental states and experiences follow one another in our conscious life. For example, I may experience a two-hour lecture as fast or slow. Lastly, there is the consciousness of internal time, it accounts for our experience of the succession of subjective time (as with memory and expectation). It is

absolute as it does not need any level below it, representing the foundation of our experience of time. Consciousness of internal time makes the following scenario possible: after watching a lecture with a friend, we disagreed about its (subjective) duration, but once we checked our watches, we agreed on its (objective) duration. The absolute level of temporal structure, consciousness of internal time, provides the setting for the two levels mentioned above (objective and subjective). It is acknowledged by Husserl as giving the form to our temporal experience.

## 2.2 The temporal object

The temporal object reveals the core of Husserl's analysis, namely, duration, which is "the continuation of the same throughout the succession of other phases" (Ricoeur 2010, 26). For instance, in perceiving a bird flying in the air, the bird is constantly changing across the duration of its movement, yet I am always perceiving the same bird flying through the sky. The paradoxical nature of the temporal object, of simultaneously being different and still the same, represents something more than mere succession of phases or the sum of its moments. Another example of the temporal object is given by Husserl. When listening to a melody, it begins to sound, as I hear the second tone, the first tone is somewhat present, and the third tone is anticipated as if the melody is going towards a conclusion. The melody continues to sound and at every new moment, the previous tones seem to carry me along as I expect more to come. In each moment of its duration, I hear a melody as a continuation of the tones and not just a particular tone. As Husserl himself puts it:

"Every tone itself has a temporal extension: with the actual sounding I hear it as an ever new now. With its continued sounding, however, it has an ever new now and the tone actually preceding is changing into something past" (Husserl 2019, 43).

The extension of the tones in a melody is the result of the extension of consciousness beyond the now to grasp the temporal object (the melody in this case). In turn, the extension of consciousness beyond the now is a result of the 'time constituting phenomena', which represent the originary temporal field of our experience at any instant (Bernet, Kern, and Marbach 1993, 103). It is composed of three different moments (modes of appearance); retention, primal impression and protention.

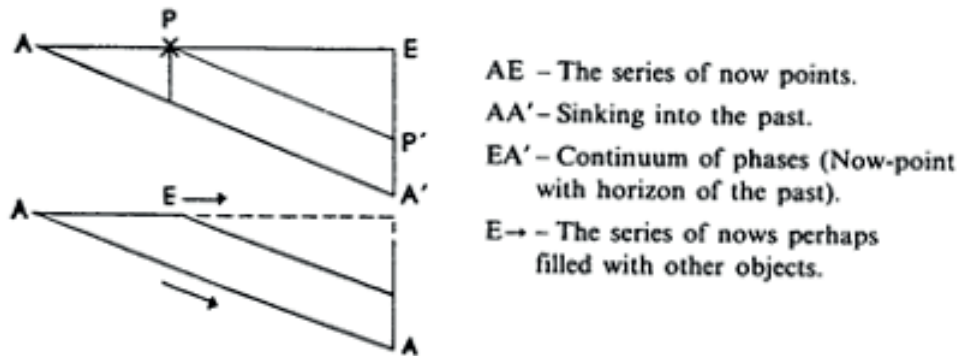
Considering the above example of the melody, the tone occupying the now-moment corresponds to the primal impression. It is the actual phase of immediate experience. But almost instantly, the tone in primal impression slips into the past. However, it does not disappear from consciousness, but is now retained. Retention is arguably the key to our grasp of the temporal object, "in this sinking back, I still 'hold' it fast, have it in a 'retention', and as long as the retention persists the sound has its own temporality" (Husserl 2019, 44). The tone has changed (from actually sounding) into something 'just past', as 'having been'. As new tones sound, the previous retentions are again retained, being constantly modified in its relation to the actual now.

As the melody unfolds, the living present encompasses a chain of retentions, of fading phases belonging to the now. This process may be understood as a comet's tail, the now actual phase is the center of the comet, accompanied by its elapsed phases as its tail (Sokolowski 2000, 146)<sup>20</sup>. As an ever new now is generated, the previously sounding tones accumulate and decrease in clarity. At this point, Husserl argues "as the temporal object moves into the past, it is drawn together on itself and thereby also becomes obscure" (Husserl 2019, 47). Across the succession of its phases, the object is in constant change, continually different in its passing away. Yet, its continuity is maintained, its parts are unified as the retention ceases. The remaining moment of the living present is protention, directed to the 'not yet'. It is based on retention as a 'project shadow' or a projection of the past, as an expectation, into the future (Bernet, Kern, and Marbach 1993, 103).

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<sup>20</sup> In fact this analogy was first made by Husserl (Husserl 2019, 52)

Husserl designed a diagram to help illustrate the identity of the temporal object in the succession of its different phases (see fig. 1). As time flows along the horizontal line, in each instant an impression sinks down the vertical line as a retention, and the retention is further retained as the temporal object unfolds. At the end of the vertical line retention ceases and the retained phases fall into oblivion. Suppose I hear the melody do re mi, then at time E in the diagram, I have the retention do re (represented by A'P'). Although protention is not represented, at the time E with retention do re, there is also the protention mi, projected forward.



(fig. 1: Mensch 2010)

In this diagram, all moments are connected through a continuum of constant modifications in which every elapsed phase is modified as a new now appears. In immanent time, past, present and future are intertwined, unfolding in every single instant. When I hear a particular tone of a melody, I am not hearing independent tones but a melody. Thus, I am aware of the whole (melody) through its parts (tones) (Wehrle 2019, 6).

### 2.3 Beyond retention: Recollection

We must consider recollection, or secondary remembrance, in order to account for what is no longer present, for that which lies beyond the comet's tail (Husserl 2019, § 14). In listening to a melody like do re mi, the content which is retained in my perception is the same as when this same melody is remembered. Recollection is a 'presentification', of the original experience, itself not a perception, but a reiteration of the original perception (Bernet, Kern, and Marbach 1993, 105)<sup>21</sup>. After listening to a melody, I can represent (recollect) any of its present instants, which 'mirror' the continuity of retentions and protentions of the (originally) perceived temporal object. In other words, since what is given in perception is identical to what is recollected, every past retained may be arranged as a quasi-present with its own protentions and retentions (Ricoeur 2010, 32).

The key aspect to understanding recollection is the passage from perception to non-perception. Retention, composed of a continuum of gradations being constantly modified, reaches an 'ideal limit', the limit of the pure now (the end of the comet's tail). The origin of the past lies in retention, not in recollection; as Husserl claims, "For only in primary remembrance do we see what is past; only in it is the past constituted" (Husserl 2019, 64)<sup>22</sup>.

<sup>21</sup> In perception the temporal object is presented, the object unfolds in its originally given mode as a presentation.

<sup>22</sup> For Husserl, the past is directly perceived (sensed) as past. Thus, retention is itself a perception, inherent in the present moment.

#### 2.4 Double intentionality and absolute consciousness

Husserl's inquiry aims to investigate the immanent time of the flow of consciousness. The term 'flow' is used throughout Husserl's analyses. It indicates the 'absolute subjectivity' from which the primal source point arises. Husserl admits that there is no proper name to refer to the absolute consciousness, and so he uses the term 'flow' (Husserl 2019, 100). To better understand absolute consciousness, we may imagine it as a stream, a flowing watercourse. The stream does not stop flowing, every point is constantly renewed by upcoming water and all parts of the stream are connected, unifying it. Absolute consciousness works in the same way. As long as we live, temporal objects endure in our perception, much like fish swimming along a portion of the stream, emerging and then gradually disappearing to more distant waters. To know exactly what is the true nature of the stream would be equivalent to the fish being aware of the water which surrounds it or the bird being aware of the air in which it flies. Absolute consciousness is the absolute ground of all being, it is the condition for the possibility of our temporal experience.

Longitudinal intentionality runs through the flux in which primal impression changes to a retention and then into a retention of a retention (Husserl 2019, 107). This intentionality enables the individual to 'knit together' an impression with its retentions and protentions and it makes awareness of the temporal flow possible (Russell 2006, 134). In the example of the water stream, it is because of this intentionality that I perceive a fish continuously swimming downstream as my longitudinal intentionality connects all its temporally appearing phases. It is the fact that 'I' am aware of my own streaming consciousness, a 'pre-reflective self-manifestation of consciousness' which enables temporal self-awareness (Zahavi 2003, 171). In transverse intentionality on the other hand, reflection is turned from the primal sensation to the enduring object, and thus perceived as a temporal object (Dyke and Bardon 2013, 402). By means of this intentionality, I am able to intend a sound over its successive appearing phases. In the example of the water stream, it is because of transverse intentionality that I see the same fish throughout the duration of its swimming.

Transverse intentionality is responsible for the departure from the living present to the awareness of the temporal object and longitudinal intentionality relates and merges the different phases of the appearing temporal object. In the example of the water stream, constituted immanent time is the fish and leaves which flow along the stream, corresponding to temporal objects enduring in consciousness. Pre-immanent temporality is not the water stream itself (that is absolute consciousness) but the water currents which direct and guide the flowing content along the stream. The two intentionalities are interwoven, for the existence of a temporal object, temporal phases of its appearing are necessary, and for the existence of a temporal order through appearing phases, a relation to the enduring temporal object is necessary (Russell 2006, 134).

In understanding the flow, as absolute subjectivity, Husserl claims "we can only say that this flux is something in conformity with what is constituted, but it is nothing temporally 'Objective'" (Husserl 2019, 100). As a result, temporally constitutive phenomena are themselves non-temporal, retention does not itself happen in the now, and as such we cannot use temporal predicates to the phenomena which constitute time. This is the essential difference between the constituting and the constituted (Mensch 2010, 90). If the time constituting consciousness was itself within time then we need another consciousness in order to constitute the time consciousness as temporal and thus would result in an infinite regress (Bernet, Kern, and Marbach 1993, 108). That is to say, although temporal objects have their objective temporality, that which constitutes them does not. I may be able to say how long it takes for the fish to swim or for the leaves to float down the stream but I cannot say the same for the stream itself, neither its water currents. The stream and the currents make up what we come to understand as past, present and future. By means of the absolute consciousness, time in its appearance unfolds, making possible the constitution of the immanent temporal unity and the temporal objects.

### 3. Internal time consciousness and Psychopathology of temporality

In the field of psychopathology, the study of the disruption of temporal experience encompasses conditions such as obsessive-compulsive disorder, depression and schizophrenia (Fuchs 2013). In this regard, Husserl's investigation of internal time consciousness proved to be a fruitful source for a conceptual understanding of the psychopathology of temporality (Vogele, Kai, and Kupke 2007; Stanghellini 2016; Fuchs 2007; Fuchs 2013).

In the previous sections, it was shown how time-consciousness guarantees our perception of temporal objects as well as our awareness that 'I' am the one experiencing the object over time. Without the structures of the living present, namely, impression, retention and protention, I would never be able to make a statement like: "The bird has been hovering in the sky for several seconds until it rapidly dived into the water to get a fish, I felt vibrant throughout the occasion". This example not only presupposes the perception of an object as enduring and having a temporal location, but it also presupposes a pre-reflective self-awareness, that 'I' am the one feeling vibrant throughout the succession of the object. In the next section, I will elaborate on how Husserl's analysis of time-consciousness may support an understanding of the psychopathology of temporality. I will narrow the investigation to time disturbance in schizophrenia.

#### 3.1 Schizophrenia and time disturbance.

Schizophrenia is a psychotic disorder characterised by hallucinations, delusions, disorganized speech, grossly disorganized or catatonic behaviour and negative symptoms (such as avolition) (Tandon 2013). These symptoms significantly impair the person's social relationships as well as their occupations. It has been suggested that these symptoms may be explained by a disturbance of internal time, by a disruption of the constitution of time consciousness and the pre-reflective self-awareness of our temporal experience (Fuchs 2013). However, we may first ask ourselves if Husserl himself saw the possibility of an error in our temporal constitution. In section 22 of *Phenomenology of Internal Time Consciousness*, Husserl states "The individual apprehension can be wrong, corresponding to no reality" (Husserl 2019, 73). That is to say, I may indeed experience a temporal succession but it does not mean that I have experienced an objective event in the world. The mismatch between my individual temporal succession and an external (objective) happening relates to the phenomenon of hallucination in schizophrenia in which people see and hear things that others do not. Although Husserl admits a possible discrepancy between temporal succession and the correspondence to a transcendent object. It may not account for a disturbance in the synthesis of time-consciousness in which a temporal succession barely (or does not) takes place. In this regard, we move to a consideration of authors drawing on Husserl's conception of internal time consciousness.

In discussing time disturbance in schizophrenia, patients seem to suffer from a disruption of longitudinal intentionality. By means of the pre-reflective awareness of the flow of consciousness, a retention of the elapsed phase of a temporal object acquires the sense of being 'my' experience (Zahavi 2003, 171)<sup>23</sup>. A disturbance of this phenomenon may explain different symptoms in schizophrenia. For example, it is common that individuals cannot keep up a conversation. They lose track of their line of thought and their speech becomes fragmented (Wehrle 2019, 14). Consider the following report of a patient: "I can concentrate quite well on what people are saying if they talk simply. It's when they go into long sentences that I lose the meanings. It just becomes a lot of words that I would need to string together to make sense." (Fuchs 2007, 233).

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<sup>23</sup> In each moment there is an awareness that it is 'my' experience which is passing away.

In this situation, it seems that longitudinal intentionality, which ‘knits together’ protentions and retentions to impressions, is impaired and the spoken sentence which unfolds as an enduring (temporal) object disintegrates. In addition, it may be argued that since there is a link between time constituting phenomena at the originary stage and what is remembered in recollection, the effects of the disruption should also manifest in reproduction (memory)<sup>24</sup>. This is indeed the case, as research on “auto-noetic awareness” (to relive one’s past events) and memory recognition shows a disturbance among schizophrenic patients, in which they cannot connect separate events into a memorable coherent whole (Vogeley, Kai, and Kupke 2007, 162).

Fuchs (2013) emphasized the impairment of protentional functioning in schizophrenia. Protention involves a ‘cone of probability’ in which consciousness is directed towards more probable events as determined by retentions and impressions, thereby avoiding inadequate associations and distractions (Fuchs 2013, 85). Let us consider the following description of a schizophrenic subject: “When I move quickly it’s a strain on me. Things go too quickly for my mind. They get blurred and it’s like being blind. It’s as if you were seeing a picture one moment and another picture the next.” (Fuchs 2013, 86). According to Fuchs (2013), with the disruption of protention, events happen too fast to be consciously perceived. As a consequence, the individual is unable to intend a future course of action, and becomes confused.

In another example, a patient reported “I could no more think what I wanted; constantly alien thoughts were pushing in between [...] as if someone would not think by himself and would be prevented from his own thinking, and his thoughts were controlled [...] I began to wonder whether this was still me or an exchanged person” (Fuchs 2007, 233). In terms of time disturbance, this experience may be interpreted in the two following ways. Firstly, the example may illustrate a fragmentation of the pre-reflective awareness of consciousness, in which temporal flow of consciousness is aware of its own streaming (Zahavi 2003, 170). The individual may experience the thoughts as coming from another person precisely because he lacks the self-awareness of the temporal flow which prevents the subject from becoming disassociated from his own mental experience as it unfolds in time. In other words, objects are enduring and succeeding each other but there is no ‘I’ which they belong to. Without the ‘self’, the experience is perceived as coming from another person. Secondly, Fuchs argued that since protention is disturbed, the individual is no longer able to exclude inadequate associations and thoughts, in a way that ‘consciousness is surprised by itself’<sup>25</sup>. Without an active orientation towards the future, one is forced to concentrate on the moments which just elapsed from consciousness (Fuchs 2013, 86).

Moreover, there are also specific impairments in the retentional aspect of consciousness. A study reported that schizophrenic patients often experience a *déjà vu*, meaning events are experienced as if they already happened before. For example, a subject reported “When I heard the news, I felt I had heard it before” (Stanghellini 2016, 50). This indicates a fragmentation of time in which retention cannot be distinguished from impression. As a consequence, the individual feels that the actual moment already occurred and the present is perceived as being past.

In normal circumstances, when we are completely engaged in our present activities, we seem to become unaware of our bodies and even time itself. Our whole being is carried along as we perform the action at hand, as if we are ‘inside time’. Whenever this implicit temporality is disrupted, one goes out of synchrony

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<sup>24</sup> Reproduction is the re-presentation of an earlier perception of a temporal object. If there is a problem in the original perception, this should necessarily reflect on the reiteration of the original perception, hence in the reproduction.

<sup>25</sup> The explanation of Fuchs (2013) becomes clearer in terms of the “cone of probability” mentioned above.

with the 'intersubjective now' of others (Wehrle 2019)<sup>26</sup>. The experience of time becomes explicit and the individuals' experience becomes faster or slower in relation to others. In schizophrenia, individuals may experience a 'delusional mood' so that ideas and thoughts have to be realised as soon as they come to mind, hence the subject becomes startled and impatient. As a result of this delusion, they feel uncomfortable in the presence of others as they are not sharing a common time. This in turn, may explain the isolation and avolition which schizophrenic individuals experience (Fuchs 2005, 197). In addition, the lack of synchrony with the time perception of others may explain the findings of empirical studies on time estimation tasks. It has been shown that when schizophrenic patients are asked to estimate the duration of an interval, they tend to overestimate as well as underestimate its time, judging the presented stimulus as faster or slower than its actual duration (Vogeley, Kai, and Kupke 2007, 161).

Husserl identifies the constitution of time with the constitution of the self (Mensch 2010, 3). Hence, Husserl's analysis of time-consciousness may be understood as an account of self-consciousness. As Zahavi (2003) argued, the retentional modification not only enables the experience of an enduring object through its successive phases, but it also provides a "pre-reflective and inherent temporal self-awareness". In the structure of time-consciousness there is an intrinsic pre-reflective awareness which makes possible the perception of the self as well as the temporal object, hence time and self may be understood as inseparable.

Self-consciousness is to be aware of oneself in the passage of time. Without the self, we are just consciousness, a flow of events and experiences without any structure. The distinction between self and the consciousness of which it is conscious, is equivalent to time constituting phenomena and the constituted temporal objects.

Before acquiring an objective temporality (with identity and duration), temporal objects exist in the flow of absolute consciousness. It is as if we give 'form' to the absolute flow by means of our temporal structure. Hence, we create a temporal order in which things have a beginning and an end. Time and self are equivalent to the extent that both may be understood as structures, 'forms' in which we give order to reality. Thus, on the one hand we have consciousness and time constituting phenomena as the ground of all being, the 'matter' or content of reality. On the other hand, there is the 'self' and the constituted temporal objects as the structure, the 'form' of which we order the content.

In summary, schizophrenic patients often report intruding thoughts and the feeling that these thoughts belong to a different self, this relates to a disintegration of both the protentional function to direct one's future actions as well as the synthesis of temporal constituting phenomena (Vogeley, Kai, and Kupke 2007). Given the intertwined relation between the constitution of the self and that of time, it is expected that the fragmentation of temporal experience occurs together with fragmentation of the self. This may explain the prevalence of time disturbance in different symptoms of schizophrenia.

#### **4. Conclusion**

Time is fundamental to our lives, it is familiar and yet it is remote, quite unknown to us. There have been several philosophical accounts on the nature of time since ancient Greece. Husserl investigates the structures of consciousness which makes our temporal experience possible. By means of phenomenological reduction, he derives the immanent time of the flow of consciousness, which is the object of his inquiry.

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<sup>26</sup> As Wehrle (2019) noted, there are also positive experiences of explicit time (for example, explicit time may be a necessary feature of human embodiment). But since we are considering schizophrenia, explicit time is looked upon negatively, as a burden to everyday performance.



Husserl examines the enduring temporal and arrives at the three moments constituting the originary temporal field, namely retention, primal impression and protention. At any given instant, the three moments unfold as a unity, allowing consciousness to stretch beyond the now to grasp the temporal object. The key element in our temporal experience is the constant modification of the continuous flow of impressions into retentions, which are projected to the future as they fall into the oblivion of the past. Furthermore, there is the operation of the double intentionality of consciousness. It consists of, on the one hand, longitudinal intentionality, which connects all different phases in the flow of consciousness, and it also produces a self-awareness of this flow. On the other hand, there is transverse intentionality, which gives rise to the enduring temporal object. The structures of inner time unfold in the flow of absolute consciousness to which the whole of time constituting phenomena takes place. This flow may be better understood as a water stream with fish and other beings navigating across it.

Husserl's analysis of internal time consciousness gives an account of how time and its objects are constituted. Temporal experience forms the basis of the operations of consciousness. However, the constitution of time and its objects may be disrupted on certain occasions. In schizophrenia, the subjective experience of time is disturbed. Husserl's investigation of internal time consciousness has been applied to the disturbed temporality inherent in various symptoms of schizophrenia, such as delusions, disorganized speech and avolition. The individual is unable to plan for future actions and there is a general lack of agency. The present work has shown how some of the symptoms of schizophrenia may be better understood in terms of a disruption of protention, retention and longitudinal intentionality.

To conclude, Husserl offers an influential account of our temporal experience. When applied to schizophrenia, this account may well explain the impaired temporal experience as a structural disturbance of time consciousness. As argued above, the close relation between the constitution of self and time may explain the prevalence of time disturbance in different symptoms of schizophrenia. Yet, both the fragmentation of the experience of self as well as the fragmentation of temporal experience occur concurrently in schizophrenia. Thus, it is plausible to postulate that similar, if not identical, structures constitute self and time, and that once the underlying structure is disrupted, the experience of both becomes fragmented. Nonetheless, it may be advised to further examine Husserl's account in order to better understand the pathological impairment of temporal experience, and to draw more concrete conclusions which will help to carry out further empirical studies.

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