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Temporality and psychopathology

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Abstract The paper first introduces the concept of implicit and explicit temporality, referring to time as pre-reflectively lived *vs*. consciously experienced. Implicit time is based on the constitutive synthesis of inner time consciousness on the one hand, and on the conative–affective dynamics of life on the other hand. Explicit time results from an interruption or negation of implicit time and unfolds itself in the dimensions of present, past and future. It is further shown that temporality, embodiment and intersubjectivity are closely connected: While implicit temporality is characterised by tacit bodily functioning and by synchronisation with others, explicit temporality arises with states of desynchronisation, that is, of a retardation or acceleration of inner time in relation to external or social processes. These states often bring the body to awareness as an obstacle as well. On this basis, schizophrenia and melancholic depression are investigated as paradigm cases for a psychopathology of temporality. Major symptoms of schizophrenia such as thought disorder, thought insertion, hallucinations or passivity experiences may be regarded as manifesting a disturbance of the constitutive synthesis of time consciousness, closely connected with a weakening of the underlying pre-reflective self-awareness or ipseity. This results in a fragmentation of the intentional arc, a loss of self-coherence and the appearance of major self-disturbances. Depression, on the other hand, is mostly triggered by a desynchronisation from the social environment and further develops into an inhibition of the conative–affective dynamics of life. As will be shown, both mental illnesses bear witness of the close connection of temporality, embodiment and intersubjectivity.

Keywords Temporality · Intersubjectivity · Desynchronisation · Schizophrenia · Melancholia

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Introduction

Mental illnesses not only interrupt the continuity of normal life. They can also be accompanied by a radical change in subjective temporality, even to the point of a fragmentation of the experience of the self in time. It was not without good reason that, since Minkowski, Straus, Binswanger, v. Gebsattel and Tellenbach, temporality has been one of the main issues in phenomenological psychopathology. Adopting the philosophical concepts of Bergson, Husserl and Heidegger, these authors have analysed psychopathological disturbances in the experience of time, in particular in depression, obsessive–compulsive disorders and schizophrenia, thus establishing a tradition in the psychopathology of temporality on which philosophical authors in turn could draw.[1] There is virtually no other field where the dialogue between psychiatry and philosophy has been so intensive and fruitful.

This tradition can be continued and extended today in two respects. For one, the literature, steeped as it is in the philosophy of life (*Lebensphilosophie*) and existential analysis, often makes no clear distinction between different levels of time experience, in particular the difference between the basic or micro-level of "internal time-consciousness" (Husserl) and the extended or "life-history" level of personal temporality. This distinction, however, is indispensable for differentiating psychotic from neurotic disturbances of temporality, in particular for the neuro-psychologically relevant disturbances of the coherence of consciousness in schizophrenia. On the other hand, the psychopathological variations of temporality were mostly analysed from an individual perspective, for example as a slow-down of lived time in melancholia. The pathology of temporality in the depressive thus appeared to be an individual disturbance, an inhibition of "vital becoming", and his lagging behind the socially shared experience of time was only a secondary feature.

Now, there is no doubt that the continuity of organic life, and of conscious existence alike, is based on a delimitation from the environment which constitutes the individual's particular lived or experienced temporality, his "own time". It is expressed by the living being's need for self-preservation in a changing environment as well as in the synthesis of human conscious life through which a "self" maintains itself throughout its changing experiences. On the other hand, however, self-reference as a prerequisite for continuity in time is not possible without a just as continuous reference to the other. How an individual lives and experiences temporality cannot be grasped without implicit or explicit reference to the contemporaneous life of others. For psychopathology, this means that an analysis of disturbances in experiencing time must always take *intersubjective temporality* into account as well.

Accordingly, the aim of the present study is to formulate anew the bases of a psychopathology of subjective and intersubjective temporality in order to permit their application to two key psychiatric illnesses. For this purpose, I will first make a distinction between two levels of subjective temporality, and then go on to examine their respective intersubjective dimension. With the terminology that has thus been developed, I will then proceed to analyse schizophrenia and melancholic depression as paradigmatic forms of mental illness.

[1] A good example is Theunissen's analysis in his "*Negative Theologie der Zeit*" (Negative Theology of Time) (1991). Cf. also, in overview, Blankenburg (1992).

Basic structures of subjective temporality

My analysis begins with the basic distinction between *implicit and explicit* temporality, or in other words, temporality as pre-reflectively lived and temporality as consciously or reflectively experienced.[2]

Implicit or lived time

If we look at a child obliviously playing with his toys, lost to the world, we may assume that he does not experience the passing of time. Lived time is the movement of life itself, implicit in the child's experience of being engaged in his play and directed towards his immediate goals. It is inherent in his bodily commitment in the respective situation, with its valences and tasks. Neither past nor future stand out as such from his pre-reflective existence. This implicit mode of temporality always remains the undercurrent of our experience. We immerse ourselves entirely in it every time we become absorbed in an awareness or activity, as in "flow experiences"[3] when the sense of time is lost in unimpeded, fluid performance.

On closer analysis, the implicit mode of temporality requires two key conditions:

1 The first is the basic continuity of consciousness which Husserl analysed as the constitutive or transcendental synthesis of "inner time consciousness".[4] The mere succession of conscious moments, as such, could not establish the experience of continuity. It is only when these moments mutually relate to each other in a forward and backward directed intention that the sequence of experiences is integrated into a unified process. Husserl called this the synthesis of *protention* (indeterminate anticipation of what is yet to come), *presentation* (primal or momentary impression) and *retention* (retaining what has just been experienced as it slips away). This can be illustrated with a melody or a spoken sentence: We hear the current tones (presentation), but are at the same time still aware of the tones just heard (retention), and vaguely expect the continuation of the melody (protention). Consequently, what is perceived is not a sequence of discrete tones but a dynamic, self-organising process which integrates the tones heard to create a melody.[5] To use Husserl's terminology, this is a "passive", i.e. an automatic, synthesis, not one actively performed by the subject. It provides the basis for what Merleau-Ponty later called the "*intentional arc*" of directed activity, i.e. for the overriding temporal forms whereby our apprehension (e.g. of a melody) and action (e.g. speaking a sentence) takes place.[6]

   Now the temporal continuity which is generated by the constitutive synthesis of protentions, presentations and retentions includes an *implicit or pre-reflective self-awareness* as well. If I speak a sentence, I am not only retaining what I have

[2] See also Fuchs 2005b.
[3] Csikszentmihalyi 1991.
[4] Husserl 1969/1991; on this, see also Gallagher and Zahavi 2008, 75ff.
[5] Husserl often uses the metaphor of the standing-streaming "Heraclitean flow".
[6] Cf. Merleau-Ponty 1962, 120: "Let us therefore say (...) that the life of consciousness – cognitive life, the life of desire or perceptual life—is subtended by an 'intentional arc' which projects round about us our past, our future, our human setting, our physical, ideological and moral situation, or rather which results in our being situated in all these respects."

just said and "protending" what I am going to say, but at the same time I am aware that I am the one who has spoken and who will go on speaking without having to reflect about myself as a speaker. The intentional arc which provides the connection between the beginning and the end of the sentence also contains an implicit self-awareness. The continuity and temporal unity of conscious life is thus connected or even synonymous with the c*oherence of a basic sense of self* or "ipseity", to use Merleau-Ponty's or Michel Henry's term.[7] This tacit or basic self-awareness underlies the personal identity on a higher level which develops with extended or reflective self-awareness and autobiographical memory (see below).

2 The second prerequisite for implicit temporality is the basic "energetic" momentum of mental life which can be expressed by concepts such as drive, striving, urge or affection, which—unlike the more "cognitive" protentional–retentional structure—I would like to call *affective–conative momentum*, or in short, *conation*.[8] This is the root of spontaneity, affective directedness, attention and tenacious pursuit of a goal, which are characteristic of living beings generally, but it also lends the "intentional arc" the tension and energy it needs.[9] Moreover, it contributes to pre-reflective self-awareness or ipseity, namely (1) as the *self-affection or sense of aliveness* which may be regarded as the essence of subjective life,[10] and (2) in the way of *spontaneity* and *agency* in which our experience of being a self is also rooted. The importance of the conative momentum for the experience of temporality and the self is clearly demonstrated when changes occur in basic motivational states—for example, through the acceleration that takes place in manic states or the retardation that occurs in depression; both affect the patients' sense of lived time (see below).

The basic temporal mode thus requires two prerequisites on a constitutive or transcendental level which can be designated *synthesis* and *conation* of inner time

[7] Cf. Henry (1965), Merleau-Ponty (1962, 379) as well as the more recent analyses by Zahavi (2003), Gallagher and Zahavi (2008, 79f). Of course, already Husserl himself had the interrelationship between the continuity of consciousness and self-experience in view: "The flow of the consciousness that constitutes immanent time not only *exists* but is so remarkably yet intelligibly fashioned that a self-appearance of the flow necessarily exists in it, and therefore the flow itself must necessarily be apprehensible in the flowing. The self-appearance of the flow does not require a second flow; on the contrary, it constitutes itself as a phenomenon in itself" (Husserl 1969, 83). Thus, Husserl's account of the protentional–retentional structure of inner time consciousness has also to be taken as an account of the micro-structure of pre-reflective self-awareness.

[8] From the Latin *conatus*=endeavour, effort, drive, urge.The concept dates back to Stoic philosophy and was later used by Hobbes and Spinoza in particular to denote the living being's striving for self-preservation (*conatus sese conservandi*), in close connection with affective–volitional life. For further reading, see e.g. Lin 2004.

[9] "We (...) bring to view the vital origins of perception, motility and representation by basing all these 'processes' on an 'intentional arc' which loses its tension in the patient, and which, in the normal subject, endows experience with its degree of vitality and fruitfulness" (Merleau-Ponty 1962, p. 140). This "energetic" or affective side of intentionality is hardly present yet in Husserl's earlier writings, but it comes increasingly to the fore in his later works, especially as regards the role of affection for attention (cf. Depraz 1994, 1998). The pre-reflective experiential directedness means a (self-)affection which Husserl also refers to as "awakening of an intention" and "drive-intentionality" (Husserl 2001, p. 198).

[10] This is at the core of Henry's phenomology of life (Henry 1963), but is also found in Merleau-Ponty (1962, 379): "Time is the affecting of self by self."

consciousness. These two moments of temporality are closely intertwined and may only be distinguished conceptually; the basic intentional structure of temporality is inseparable from its motivational or conative dimension. Together, these moments form the intentional arc of attention, perception and action that bridges succeeding moments of consciousness by an intentional and affective directedness. At the same time, they are the prerequisites for a basic sense of a coherent self that is essentially temporal or, as Merleau-Ponty says: "We must understand time as the subject, the subject as time."[11]

Explicit or experienced time

The explicit experience of temporality superimposes itself on the implicit mode when the steady duration of primary "becoming" (Bergson) or oblivious activity is interrupted by the *sudden*: such as the shock of a sudden loud noise, surprised amazement, a stab of disappointment or shame, a break in an interpersonal relation or a painful loss. In such moments, pure lived temporality sustains a rift: "*now*" and "*no longer*" are disconnected and create an elemental segmentation of time. What hitherto had been a timeless continuum splits off from the present and now turns into a *remembered* (and no longer a merely "retained") *past*. This makes time conscious or explicit: it "runs on" and separates us from the lost object. These experiences of the "no longer" tend to be basically painful. Awareness of the past is made sharper from early childhood on especially through losses and disappointments.

Experienced time is thus produced primarily through a *disturbance or negation*, whether this be shock, surprise, pain, shame or loss—through a "rift in being", as it were, which interrupts the smooth continuity and breaks through the habitual.[12] A similar gap is produced in the direction of the *future*, namely, through the separation of drive and satisfaction, desire and fulfilment which is anticipated in imagination. This discrepancy generates an appetitive tension, a "pursuit of something" and thus a time differential in the "*not yet*" mode. With it, the future as such comes to the fore, so that time again becomes explicit, namely as a period of awaiting or aspiration which is accompanied by feelings of excitement, impatience, restlessness, longing and hope.

As can be seen, the explicit experience of time arises in both cases from the negation of implicit time of pure becoming—whether it be as lost, emptied, past time or, on the other hand, as unfulfilled, unsatisfied, still-to-come time. It is experienced as closely bound up with certain time-specific emotions: the "now" with surprise, astonishment or shock; the "no longer" with regret, grief or remorse; the "not yet" with desire, impatience, yearning or hope. Consequently, the explicit experience of time frequently contains an element of displeasure or suffering. If it is also

[11] Merleau-Ponty 1962, p. 376.

[12] Naturally, the time-constituting influence of rhythmical, repetitive processes must also be taken into account, such as breathing in and out, sleeping and waking, day and night, recurring times of meal, etc. Such experiences of rhythmical repetition, however, do not constitute the "rift" or break in a continuum which shows that the past is lost and thus give rise to the forceful experience of the irreversibility of passing time.

accompanied by the realisation of the finiteness of life, then it can kindle the idea of time as an independent, indeed inexorable power that dominates us.[13]

Implicit *versus* explicit time come near to another distinction, namely between the subjectively lived and the objective or 'corporal' body (*Leib vs*. *Körper*).[14] The first term refers to the body functioning in the tacit mode, as the medium of everyday performance; the second term to the body as turning into the object of attention, e.g. when it puts up resistance to our purposes, or is used as an instrument deliberately. In fact, implicit temporality and tacit performance of the body are nearly synonymous: Lived time may be regarded as a function of the lived body, opened up by its potentialities and capacities. The more we are engaged in our tasks, the more do we forget time as well as the body. On the other hand, in explicit temporality the body often appears in the corporal or explicit mode as well. For example, when falling ill, we experience our body no longer as a tacit medium but rather as an object or obstacle, while we notice the slowing down of time and may even feel excluded from the movement of life. Thus, embodiment and temporality have a parallel background–foreground structure.

Explicit time which divides into the three dimensions of present, past and future, must now also be re-synthesised in order not to break down into distinct fragments. In this case, however, it is no longer a matter of a passive or automatic synthesis but of a synthesis actively performed by the subject. It requires an *extended*, *personal or narrative self* which gains a reflective relationship to itself and is thus in the position, on the one hand, to project itself into the future, and on the other, to appropriate its own life story in the form of autobiographical narratives. This personal self starts to develop in the second year of life, not least on account of the already described situations of shock, pain, surprise or shame. For it is such situations that produce the elemental experience of "I–now–here": They throw the subject back on himself and thus become the occasion of increasing self-awareness, the *principium individuationis*.[15]

The emerging personal self, for its part, bridges the gap created by explicit temporality through its active synthesis, thus prompting the *personal–historical or biographical time*. Preliminary steps to this are to be found in the development of "object permanence", i.e. the child's ability to remember objects that have disappeared and to recall them actively again.[16] The actual development of the episodic–autobiographical memory begins during the third year of life.[17] As it continues, it makes possible the increasing integration of past and future in the present of the self which is perceiving itself historically while it is actively leading its own life. This integration takes place in that the person projects his future life on the basis of what he has experienced to date, "retrospectively looking ahead", so to speak, while on the other hand understanding his history on the basis of future options he has now. This polarity of integrative tasks may also be termed, using

[13] Time has been analysed from this point of view mainly by Theunissen (1991), who referred especially to psychopathological analyses of melancholia.
[14] Cf. Fuchs 2005a.
[15] Cf. on this point Schmitz 1992 and Schmitz 1965, § 6.
[16] According to Piaget, who coined the term "object permanence", this is already possible from the eighth month of life on; cf. also Markowitsch and Welzer 2005, p. 153.
[17] Ibid, pp. 83f., 209ff.

Kupke's concepts,[18] as a *synthesis post facum versus* a *synthesis ante factum*. The personal self is thus, in Heidegger's terminology, a dialectic unity of "thrownness" (*Geworfenheit*) and "project" (*Entwurf*), or a "thrown project" (*geworfener Entwurf*). It fulfils itself in time—indeed, "the living of time and the fulfilment of the self are two aspects of the same process", writes Theunissen.[19] By actively living time and *leading* our life, we realise or "temporalize" ourselves and at the same time prevent explicit time from dominating us, so that we are not exposed to it merely passively.

II. Intersubjective temporality

After distinguishing two levels of human temporality, I now turn to its intersubjective dimension. For this, I no longer consider the dimensional order of time whose development is orientated to both past and future, but time as *a relational order of processes* which interact or resonate with one another. Already at the level of a biological organism, we find a continuous adaptation of endogenous and exogenous rhythms or timers, in other words, a *synchronisation* of the organism's own cycles with cosmic rhythms—days, months, years. Such synchronisation or feedback also affects a person's relationship to his social environment, between his own time and the time of the life world or "world time".[20]

Mere daily contact with others entails a constant fine tuning of corporal and emotional communication, an *intercorporal resonance*.[21] Infant research has shown how this synchronised contact shapes the child's primary experience: communication between infant and mother is characterised by rhythmic-melodic interactions, by mutual resonance of facial expression and gesture as well as by "affect attunement".[22] These interactions are confined to response latencies or contingencies within the range of 200–800 ms—otherwise desynchronization will occur.[23] Intercorporeal communication continues in the development of *joint attention* in the eighth month of life, in dealing with objects together, and finally in verbal interaction. The microdynamics of daily interaction thus entail from the very beginning a learned temporal attunement which, of course, is not conscious as a rule—it is part of the questionless "common sense".[24] Connected with this is the tacit feeling of being temporally connected with others, of living with them in the

[18] Kupke 2002, 2009.
[19] Theunissen 1991, p. 305.
[20] Straus (1960), following Hönigswald, also speaks of "experience-immanent" and "experience-transcendent" time (*erlebnisimmante vs*. *erlebnistranseunte Zeit*). The latter must not be confused with physical time.
[21] Cf. Fuchs 2000, p. 244ff.
[22] Stern 1985.
[23] Papoušek and Papoušek 1995. It should, however, be emphasised that early communication does not ideally mean "complete synchronization", but always includes sequences of matches and mismatches which are also important for drawing the boundary between the child and its mother (Tronick and Cohn 1989). Synchronisation thus means a rhythmic or phasic harmonisation, not complete congruence.
[24] Even the slightly extended response latency which appears in intercontinental telephone conversations gives rise to some irritation, and makes it clear that normally each conversation establishes an implicit temporal coordination.

same intersubjective time. Minkowski has called this "lived synchronicity"[25]; one could also speak of a *basic contemporality*.

This contemporality even affects the basic movement of life. Spitz (1945) and Bowlby (1969) discovered that institutionalised infants who are deprived of any attachment relationships fall into deep apathy and depression, even to the point of dying from minor infections. One could say that these children have lost their psycho-physiological *conation*, the vital force that directs them towards the future. As we can see, the conative momentum is not only an individual, solipsistic force; it is always embedded into the social relationships to others. Infants move forward into a promising future because they feel contemporal with caring adults who structure the world to be an inviting place.[26]

As a rule, of course, we are hardly aware of this basic contemporality. Rather, the processes of social synchronicity will become explicit in the various forms of social coordination or "timings": in daily and weekly routines, time scheduling, appointments, punctuality—in a broader sense, in all mutual commitments and arrangements. Synchronisations also mark the changes and developments that occur in various phases of life. Important biographical transitions (entering school, starting work, marriage, steps of career, retirement, etc.) are more or less standardised and bind together the individuals of a cohort. Finally, there is the basic "contemporaneity" of people belonging to the same culture with their specific history, values, styles, forms of behaviour, etc.

These considerations have led us to a second level of intersubjective temporality where synchronicity is less implicit and spontaneous, but tends to be established explicitly and by convention. Of course, these temporal coordinations do not remain constant but repeatedly pass through phases of *desynchronisation*, of which we may distinguish two kinds: a state of being 'too late' and of being 'too early', or a *retardation* and an *acceleration* of one's own time in relation to social processes (Fig. 1).

The correlation or s*ynchronicity* of one's own and world time generates a feeling of wellbeing, of a fulfilled present where one exists without explicit awareness of time, entirely devoted to one's own activity ("flow experiences") or to resonance with others. The intersubjective "*now*" is constituted through the presence of the other, in particular through our simultaneous referral to the world, as in pointing or looking at, shared attention or joint action. It may of course be made explicit by the use of indexical words such as "here", "this", "now" etc. Presence (*Gegenwart*) in the full sense is the presence of another person or "counterpart" (*Gegenüber*).

On the other hand, the "*too early*", the *acceleration* or *antecedence* of one's own time with respect to external processes, makes *waiting* necessary. Waiting imposes on us a slower time structure to which we can respond with patience or impatience. But also *boredom* highlights unpleasantly the discrepancy between one's own drive

[25] Minkowski 1970, p. 72.

[26] The "élan vitale" or "élan personel" as a basic concept of Minkowski's psychopathology should thus not be regarded as a merely individual principle, but as being tightly connected to intersubjectivity. Cf. also Levinas (1995, p. 51): "The face-to-face situation would be the actual fulfilment of time. The transition of the present to the future is not the act of a lonely subject but the intersubjective relationship."—"The relationship to the future is the actual relationship to the other"(ibid, p. 48).

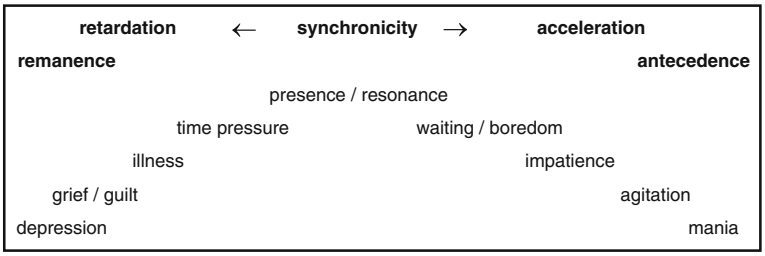

Fig. 1 Synchronisation and desynchronisation of one's own and world time

or interest and the lack of external stimulation or possibilities for action.[27] Restlessness and agitation as a further acceleration of one's own time can develop into *manic excitement* in pathological cases. Here the individual's time can get more or less decoupled from natural and social rhythms.

As a rule, the "*too late*" or the *retardation* of one's own time is experienced as more painful. As a counterpart to waiting, there first arises the "time pressure", which results from having to catch up on a delay. Other feelings of remanence, of being left behind are more severe: *illness*, for example, means a deceleration, a loss of ability to act, and thus a partial exclusion from the life of others. *Grief* reflects a break which has been experienced in one's synchronicity with others—the mourner cannot break away from the shared past, whereas the social time keeps going on. *Guilt*, the failure to meet expectations or obligations, also has a retarding structure if its sufferer holds fast to the omissions of the past. Finally, a more or less marked desynchronisation from intersubjective time is characteristic of melancholic depression.

To summarise: intersubjective time can be considered a relational arrangement of individual and social processes which are characterised by synchronisations and desynchronisations. While lived or implicit time is basically associated with synchrony, the experience of explicit time arises primarily in desynchronised states. The irreversibility and "dominance" of time is experienced first and foremost in discrepancies, remanences or separations from others to whom our lived time primarily relates. Time can be especially experienced as *loss of simultaneity*: as the "too early" or "too late", and thus as time which "creeps" or "rushes", which "flies" or against which one is fighting. In this, it is similar to *health* which normally remains unnoticed until we become ill, or to *balance* which we only appreciate when we lose it—when we stagger or become dizzy. But it is not "time" as a metaphysical entity that we experience, but rather changes in the temporalization of our existence which result from its relation to the rhythms and processes in which our life is embedded from the very beginning. Time which faces us from outside in seeming independence is in fact experienced only *in relationships*, namely primarily in relation to others—i.e. in desynchronisations of intersubjective time.

[27] As the subjective experience of the velocity of time depends mainly on the degree of our activity and involvement, the unfilled time of boredom is experienced as dilated or "creeping", although the individual's own time is rather accelerated in relation to external processes.

III. Psychopathology of subjective and intersubjective time

In the first section, I have presented the two basic levels of subjective temporality:

1. implicit or lived time, based on the protentional–retentional intertwining and the conative–affective dynamics of conscious life;
2. explicit, experienced or autobiographical time, implying the dimensions of future, present and past, which in the final analysis is based on the person's relationship to him- or herself.

These two levels have not always been clearly distinguished in classical and phenomenological psychopathology. Binswanger, for example, in his study of "Melancholia and Mania" (1960), misunderstood Husserl's terms protention, presentation and retention as equivalent to future, present and past and therefore wrongly interpreted the blockage of the future in depression as a disturbance of protention. What is more, the intersubjective dimension of temporality was largely ignored in psychopathology. In what follows, I want to analyse first schizophrenia and then depression as paradigmatic disturbances in subjective and intersubjective temporality.

Schizophrenia as a disturbance of basic self-coherence

> "I am not able to feel myself at all. The one speaking now is the wrong ego (...) When I watch television it is even stranger. Even though I see every scene properly, I do not understand the story as a whole. Each scene jumps over into the next, there is no coherence. Time is also running strangely. It falls apart and no longer progresses. There arise only innumerable separate now, now, now—quite crazy and without rules or order. It is the same with myself. From moment to moment, various 'selves' arise and disappear entirely at random. There is no connection between my present ego and the one before."[28]

> "You are dying from moment to moment and living from moment to moment, and you're different each time"[29]

The two patients are describing a *weakening and temporal fragmentation of self-experience* which, as I will argue in the following, should be considered as a generative disturbance in schizophrenia. Especially symptoms like thought disorder, thought withdrawal or thought insertion, passivity experiences and, finally, the "loss of natural self-evidence"[30] may be regarded as resulting from a *fragmentation of the intentional arc*, which is fundamental to all our perceiving, thinking and acting as well as to our self-realisation (see above p. 3f.). This disturbance of self-coherence immediately affects the intersubjective synchronisation as well, so that schizophrenia always appears as a disturbance of the basic intersubjectivity or contemporality. I want to explain this in more detail, starting with the most prominent symptoms of

[28] Description given by a female schizophrenic patient of Bin Kimura (In: Psychopathology of self-awareness, Tokyo 1978, p. 18; quoted from Kobayashi 1998, p. 114).
[29] From a schizophrenic patient of Chapman's (1966).
[30] Blankenburg 1969/2001, 1971; see also Fuchs 2001b.

temporal fragmentation and then proceeding to the more subtle, but underlying loss of basic self-coherence or ipseity.

Fragmentation of the intentional arc

Let us first look at two examples of thought disturbances in schizophrenia:

> "I can concentrate quite well in 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."[31]

> "I have to pick out thoughts and put them together. I can't control the actual thoughts I want ... I think something but I say it differently. ... Last time I could not get the words that were correct to make up a sentence ..."[32]

Normally, words are not understood or spoken discretely but as elements of a meaningful whole. This semantic combination however, is based on a temporal one, namely, the protentional–retentional coherence of consciousness. If this passive temporal synthesis is disturbed, patients are no longer in the position to maintain the intentional arc of listening or speaking, and instead are forced to put together the sentences actively from single words. Overarching meaningful units are no longer available as a matter of course. The continuity of the intentional arc disintegrates, creating *temporal gaps* which, in severe cases, are experienced as thought blockages or thought withdrawal. Of course, this transition from simple disturbances of concentration to thought blockages and interferences, and finally to inserted thoughts, can no longer be explained as a mere disturbance of attention or comprehension at the level of semantic combinations. Rather, the disturbance must be localised at the transcendental level where the temporal coherence of conscious awareness is constituted.

From a phenomenological point of view, Husserl's analyses of inner time consciousness have already been applied to the analysis of schizophrenic thought and self-disturbances.[33] Especially an impairment of the *protentional function* was assigned an important role which I want to consider in more detail.

Protention presents an only vaguely determined expectation or openness towards the future. It opens up a field of possibilities or probabilities, so to speak a "cone of probability" (Fig. 2[34]). This cone originates in the present, and moves forward continuously. Within the cone lies the greater or lesser likelihood, outside it, the entirely unexpected. What is likely is determined by my current retentions, my impressions and my intentions. For example, I speak a sentence, I am aware of its beginning, its continuation and its end, and what I say is in accordance with this. In order to keep my speech "on track", however, it is necessary also to prevent unsuitable ideas and associations from intruding. Directed thinking or speaking is a selective process which constantly inhibits or, as psychopathologist Janzarik puts it, *dis-actualises* inadequate associations.[35] The (blurred) margins of the cone are thus

[31] Chapman 1966.
[32] McGhie and Chapman 1961.
[33] For example, Fuchs 2000, p. 144ff., 2002; 2007a; Gallagher 2000a, b; 2005; Mishara 2007; Vogeley and Kupke 2007.
[34] See also Fuchs 2007a.
[35] Janzarik 2004.

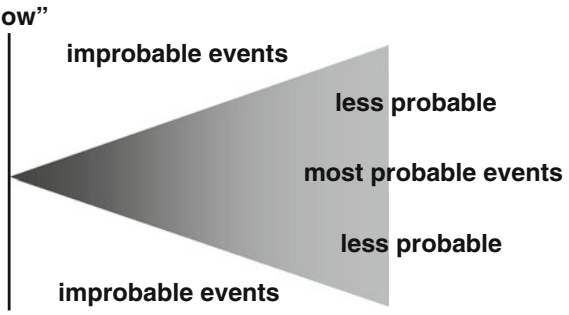

Fig. 2 Protention as a "cone of probability"

formed through my intentional direction and, at the same time, through the inhibition of disturbing associations. Protentional tension and disactualising inhibition coincide.

However, if the protentional and thus preparatory or anticipatory processes now fail to function, as I propose is the case in schizophrenia, then events will start coming too rapidly for conscious apperception. The protentional function will be 'overwhelmed', and perplexity results when the patients try to interpret the meaning of what intrudes on them:

> "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."[36]

> "My feeling of experience *as my own experience* only appears a split second delayed."[37]

A failure of the constitutive temporal synthesis will create micro-gaps of conscious experience. Through the retentional function, the just-past experience is still appropriated, but only behind time. Moreover, if protention is disturbed, the disactualization of unsuitable associations or impulses will also fail. Disturbing thoughts or physical movements can then intrude into the gaps of the intentional arc—but they, too, will only be experienced in the retentional mode, that is to say, *in retrospect*. They appear in consciousness as "erratic blocks" so to speak, which come to patients as a surprise—of course not in the way suddenness is normally experienced (which I have examined at the level of explicit time), but in a form whereby *consciousness is surprised by itself*. The subject is then no more actively directed towards the future, but is left with focusing on what just turned up in his consciousness, or on the sensory feedback of his just-past movement. This "*transcendental delay*" may be regarded as the essence of the major schizophrenic self-disturbances[38]: The unforeseen fragments of thoughts or movement which the

[36] McGhie and Chapman 1961.
[37] Parnas et al. 2005, p. 245.
[38] In order to distinguish the German "*Ich-Stoerungen*" (that means, 'ego-' or 'self-disturbances', including thought withdrawal, thought insertion, thoughts aloud and passivity experiences) from the basic schizophrenic disturbance of self-awareness or ipseity, I refer to the former as "major self-disturbances".

patient encounters in retention, he can only experience as radically alien to the ego and external.[39]

> "Initially she only noticed difficulties in doing the housework. Something constantly got in the way, other thoughts but also disturbing movements. For instance, while she was cooking, her hand went to her forehead several times consecutively ... The movement took place entirely of its own accord, she had absolutely no control over it ... From then on, she carefully observed every movement she made and noticed that she did indeed run around 'like a robot.'—She is now convinced that extra-terrestrial powers are able to control her and can also steer her movements."[40]

The disintegration of the intentional arc is thus accompanied by an *externalisation of the fragments*: impulses to move which are not anticipated and cannot be ascribed to one's own spontaneity must necessarily be experienced as manipulations of one's will. The same applies to thoughts that arise: They are then no longer embedded in the continuity of basic self-experience but appear as being inserted or, if further externalised, as auditory hallucinations ("voices"). This is accompanied by a *transcendental depersonalisation*:

> "I could no longer think as I wanted, I could no longer communicate ... It was as if one could no longer think for oneself, were prevented from thinking. I had the impression that what I think does not have to be my own ideas at all ... as if it did not have to be me who is thinking. I started to wonder whether it is still me or someone else instead."[41]

The synthesis of the inner time consciousness, as we saw (p. 3f.), is bound up with an implicit self-awareness. Therefore, if this synthesis is disturbed, the patient not only loses the feeling that particular conscious events belong to himself, but the continuity of his *self-experience* must also be affected—as was already described by the two patients at the beginning of this section (p. 10). While they are still aware of their personal self and are able to reflect on themselves, this reflection always comes too late and cannot substitute the basic self-coherence ("The one speaking now is the wrong ego"). The continuity of the sense of self depends on the spontaneous linking of the "primal impression" with protention and retention. It can no more be recovered by a subsequent recording of what has been experienced.[42] Inserted

[39] One could remind here Kant's analysis of transcendental apperception: "It must be possible for the 'I think' to accompany all my representations, or otherwise something would be represented in me which could not be thought at all (...) For the manifold representations that arise in a certain intuition would not, as a whole, be *my* presentations if they did not belong to one self-consciousness (...), because they would not consistently belong to me' (Critique of pure reason, Transcendental Analysis, § 16). The formulation: "otherwise *something would be represented in me*" describes exactly the alienation of thought that schizophrenics actually experience ("it thinks").

[40] Klosterkötter 1988, p. 163. The delusional ascription of the experiences to certain external forces—thoughts being inserted or movements being controlled *by others*—can no longer be explained by the fragmentation of the basal self alone but is founded on the alterity which is constitutive of the *personal* self (see below as well as Fuchs 2000, pp. 171ff.).

[41] Ibid, p. 111.

[42] This is no longer a case of pathological "transcendental delay" (see p. 12 above), but of the deferral which always characterises reflection.

thoughts or verbal hallucinations are the remnants of the broken intentional arc which the patient encounters in his own experience.

In sum, from a phenomenological point of view, key schizophrenic symptoms such as thought disorder, thought insertion, auditory hallucinations or passivity experiences are best described as disturbances of the transcendental constitution of "inner time consciousness", or of the micro-structure of temporality. This disturbance manifests itself in a disintegration of intentional acts, in a fragmentation of self-coherence and in an externalisation of the fragments, finally resulting in transcendental depersonalisation. In the next section, the temporal fragmentation will be related to the underlying ipseity disturbance.

The analysis put forward so far has its equivalents at the neuropsychological level. Several authors have pointed out the parallel between Husserl's tripartite concept of time consciousness and Fuster's analysis of the cognitive functions of the prefrontal cortex.[43] According to Fuster, "integration across time is a basic function of the prefrontal cortex and the basis of its cardinal role in the temporal organisation of behaviour".[44] This integration is served by *working memory*, *selective attention* and *preparatory set*. Working memory (the capacity of maintaining a limited amount of information available for use) may be related to retention; selective attention (the capacity to select target information from a broader stimulus field and inhibit irrelevant or interfering influences) can be seen in analogy to presentation, and preparatory set (the capacity to select and recruit action schemas for intended goals) to protention. The dorsolateral prefrontal and the anterior cingulated cortex seem to play essential roles in the neural networks underlying these functions.[45] Though Husserl certainly would have opposed a neuropsychological explanation of consciousness, the fact that he attributed the intentional structure of time consciousness to passive syntheses, i.e. to functions not performed by the subject, makes it plausible to look for their possible neurobiological correlates.

In schizophrenia, there is increasing empirical evidence of disturbances in the integration of these basic functions. For example, schizophrenic patients exhibit reduced attention spans, disturbances in planning, initiation, sequencing and synchronisation of speech as well as in the performance of other activities.[46] These disturbances can be understood as a fragmentation of the intentional arc, especially as an excessive strain on the protentional function. Andreasen subsumed these results under the heading of "cognitive dysmetria" and attributed it to a hypothetical disconnection syndrome in cortico-cerebral-thalamic circuits.[47] Thus, there is increasing evidence for a structural homology between the phenomenology and

[43] See for a more detailed discussion of this parallel Vogeley and Kupke 2007; Kaiser and Weisbrod 2007; Fuchs 2007a.

[44] Fuster 2003, cf. also Fuster 1997.

[45] Kaiser and Weisbrod 2007.

[46] A number of studies have shown marked deficits of working memory and executive control functions which manifest themselves as formal thought disorders (Vogeley et al. 1999; Manoach 2003). Further, schizophrenic patients may exhibit problems with timing or sequencing of tasks, e.g. a disturbance of sequential finger movements (Jirsa et al. 1996), a reduced ability to discriminate stimuli in close temporal vicinity (Braus 2002), and abnormally long latencies in estimating time intervals (Mishara 2007). On this, see also Kaiser and Weisbrod 2007; Vogeley and Kupke 2007.

[47] Cf. Andreasen et al. 1998.

the cognitive neuroscience of schizophrenia in the emphasis on the temporal order of mental life.

Basic stages of self-disturbance

Our analysis up to now related to the fragmentation of the continuity of consciousness as it is manifested in thought disorders and major self-disturbances in schizophrenia. Already in the basic stages of the illness, however, more subtle disturbances of self-coherence can be found which do not yet have the character of breaks in the intentional arc but rather indicate a *weakness of the self-awareness or ipseity inherent* in it. As I have shown in the first chapter, temporality and ipseity are intimately intertwined. Therefore, a disturbance of ipseity which is suggested as a core feature of schizophrenia by Parnas and Sass[48] should be expected to manifest itself as a disturbance of temporal self-coherence as well. The following case gives a first illustration:

> A 32-year-old patient reports that since he was 16, he has had growing doubts whether his possessions were really the original ones or had been secretly replaced by someone. Whenever some of his possessions moved out of sight, he started to have these doubts. When he went shopping, he suspected that the salesperson had replaced what he had bought with something else while it was being wrapped, and he could therefore no longer use it. When he was studying, if he was inattentive for a moment, he started thinking that the student sitting next to him had replaced his book and he had to throw it away, so that he was constantly buying new books. He was gradually losing "confidence in his environment". After breaking off his studies at the age of 21, he finally began to doubt whether his own arms or someone else's were performing some activity. He would trace his arms from the hands to his trunk, fully concentrating on his hands and on the force he exercised in order to feel that he really did have his own arms. Nevertheless, he had to look behind himself repeatedly in order to make sure that no one was standing there and moving them. Now he doubted the simplest activities. Whenever he moved just a little too fast, he had to repeat the movement in order to make sure that it was his own. In the end, he needed an endless amount of time just to get dressed because he repeatedly had to check whether he was holding his clothes properly, whether his trousers fitted well, whether he had put them on himself, etc. Every move had become "like a mathematical problem" for him.[49]

To begin with, the patient can no longer trust the continuity and identity of the things he owns. Object permanence[50] is thus retained only at the level of explicit time—in other words, the patient recognises objects again—but it is undermined by the loss of their implicit "mineness" and familiarity. Bit by bit, the mineness of his

[48] This concept of schizophrenia has been put forward by Parnas and Sass in a number of seminal papers; see Sass and Parnas 2003; Parnas 2000, 2003; Sass 2000. My approach aims to complement their concept by elaborating its temporal dimension.

[49] This description from our own clinic I owe to Bürgy (2003).

[50] Cf. above, p. 7.

own movements is lost as well and must be artificially recreated from outside, namely through concentrated self-observation. The meaningful units of intentional action and automatic habits increasingly degenerate. In order to compensate for this "dis-automation" of intentional acts, the patient has to prepare and produce the simplest actions deliberately, thus piecing together bit by bit what has lost its unified temporal form and coherence. In retrospect we may assume that a weakening of basic self-awareness was already present at the early stages of this protracted development, which manifested itself in a loss of basic trust in the continuity of the personal world. Since the disturbance of ipseity is not perceived by the patient as such—it lies, so to speak, in the centre or in the "blind spot" of his experience itself—the alienation of the objects must be explained by their having been replaced by others.

The breakdown of routines described by the patient makes it clear that the cause of his "loss of natural self-evidence" is also to be sought in a disturbance of basic self-coherence: the intentional arc of habitual actions is no longer inhabited by the self.[51] Here is another example of this:

> "I found recently that I was thinking of myself doing things before I would do them. If I am going to sit down, for example, I have got to think of myself and almost see myself sitting down before I do it. It's the same with other things like washing, eating, and even dressing—things that I have done at one time without even bothering..."[52]

The disintegration and alienation of routine units of activity often forces patients to produce every single movement intentionally in a way that one could call a "Cartesian" effect of the mind on the body: The body's implicit knowledge has been lost, and its place taken by "hyper-reflexive" self-observation and self-control.[53]

Despite his efforts for controlling his actions, the first patient described above cannot help doubting his experience of agency, and he is on the verge of developing delusions of external influence. As Sass and Parnas have put it, "...what might have been thought to be inalienable aspects of the self come to seem separate or detached. This may affect one's arms or legs, one's face ... even one's speaking, thinking, or feeling."[54] Thus, the increasing loss of ipseity may transition into a fragmentation of self-coherence on the temporal micro-level as described in the last section, leading finally to full-blown experiences of alien control. Then the patient's mental processes "... are no longer permeated with the sense of selfhood but have become more like introspected objects, with increased reified, spatialized, and externalised qualities." [55]

But even without this transition, the basic or chronic stages of schizophrenia are already characterised by a fragmentation and freezing of lived time which was first described by Minkowski in his phenomenology of schizophrenia. According to him, schizophrenic patients suffer from a fundamental loss of *élan personel* or "vital

[51] On the notion of "inhabiting" or "indwelling", see Polanyi 1967 as well as Sass 2000, 168f.
[52] McGhie and Chapman 1961.
[53] Cf. on the concept of schizophrenic hyperreflexivity, Sass 1992a; Sass and Parnas 2003; Stanghellini 2004, 150ff. It can also be traced back to Minkowski's notions of "morbid rationalism" and "morbid geometrism" in schizophrenia (Minkowski 1927).
[54] Sass and Parnas 2003, 432.
[55] Sass and Parnas 2003, 432.

contact with reality" which normally flows from the immanent dynamism of life. The loss manifests itself in a characteristic imbalance between lived time (or Bergson's *durée*) and static space. There is a weakening of the dynamic, flexible aspects of life and a corresponding hypertrophy of the fixed, rational and geometrical elements. Thus, referring to the two constitutive moments of temporality described above in "Basic structures of subjective temporality", we also find a *gradual diminishment and depletion of affectivity and conation* over the course of schizophrenia.[56] More and more losing the basic affective attunement to the world, the patients become instead preoccupied with logical, static and intellectual aspects. This can also be described as an *arrest of existential temporality*, as expressed by one patient after several years of illness:

> "There is only immobility around me. Things present themselves in a disconnected way, each on its own, without evoking anything ... they are understood rather than experienced. They are like pantomimes performed around me, but which I am not able to join, I stay outside ... There is no flow between me and the world. I can no longer give myself away to the world. Everything around me is motionless and congealed ... I see the future only as a repetition of the past."[57]

Generally, it can be observed already at the prodomal stages and also as the illness progresses to chronic states, how patients attempt to compensate for the disintegration of lived time through the explicit creation of artificial continuity. This primarily includes "rational reconstruction" strategies, the adoption of rituals or the *minimization of external changes* as in autistic withdrawal.

> The main occupation of a 35-year-old chronic schizophrenic patient is to photograph the landscape that he sees from his window. He regularly shows these photos to his psychiatrist with comments like: "Here, there is a car."—"There, the car did not move during the night."—"This is the same car on another day, there are dead leaves on the roof."—"Time goes by, but things do not change. I find time with photographs."[58]

That time passes while things remain the same is one of the basic facts in the world we live in. But this permanence is not something the patient can take for granted, it has to be explicitly secured. Husserl's "*Urdoxa*" or primordial "world faith", namely the unquestioning assumption that the world continues to exist as it has done hitherto[59]—this faith has been shaken in the patient. The continuity of the

[56] On affectivity in schizophrenia, cf. in particular Sass 2004, 2007.

[57] Minkowski 1927, 99f. (own translation). Again, the loss of *élan personel* or "vital contact with reality" should be regarded as including the intersubjective aspect as well, as the quotation of the patient already hints at; on this, see the next chapter. A patient of our department reported a similar experience: "I feel like in the movie 'Groundhog Day': time and again I wake up, and the same things happen again and again. That's how I feel—like in a dream. [...] All other people live a normal life, but for me, it's different, it's like cut–cut–cut ... I look at an entity, and I look at other entities, and there is emptiness in between, there is nothing in between." Here existential time is fragmented, and the patient experiences an eternal recurrence of the same.

[58] Cf. Wiggins and Schwartz 2007.

[59] "The real world is only in the constantly conceived presumption that experience will continue in the same constitutive style" (Husserl 1929, p. 222).

world and the things in it is based on the basal experience of the self. The patient, however, must reconstruct this inherent duration (*durée*) of lived time—in other words, he must actively put together the fragments of time which he captures in photographs. In the light of all this, it comes as no surprise that schizophrenic patients may even be convinced that they are responsible for the continued existence of the world. They develop complex rituals to be performed daily to ensure it will continue to exist, like God continues to maintain the world according to the theological concept of "*creatio continua*". Similarly, the continuity of the self may be affected, as shown by the following case:

> "If a thought passed quickly through his brain, he was forced to direct back his attention and scrutinize his mind in order to know exactly what he had been thinking. In one word he is preoccupied by the continuity of his thinking. He fears that he may stop thinking for a while, that there might have been 'a time when my imagination had been arrested'. (...) He wakes up one night and asks himself: 'Am I thinking? Since there is nothing that can prove that I am thinking, I cannot know whether I exist.'"[60]

In a similar manner, a patient of mine had to reconstruct carefully every morning what he had done the day before in order to make sure that he was still the same person. He could never be quite sure, and pondered on whether he might have been replaced by another person. These patients demonstrate a morbid version of what John Locke, and recently Derek Parfit, considered the basis of personal identity,[61] namely the ability to explicitly remember one's own earlier states and to relate them to one's present state. Obviously, this ability does not suffice: without the basic continuity of the core sense of self or ipseity, a subsequent explicit remembrance does not give rise to an assured feeling of identity. The patients thus provide examples contradicting rationalistic concepts of personal identity.

Disturbance of intersubjective temporality

The weakening of basic self-coherence described so far also affects intersubjective temporality in every phase of the illness. As we saw (pp. 7f. above), fundamental "contemporality" with others is based on the temporal coordination during day-to-day interactions, especially on those practised from childhood on. These implicit and fluid patterns of intercorporal communication are not available to schizophrenic patients to the same extent even in pre-morbid stages: their intercorporal affective resonance is basically impaired. Patients have difficulties in recognising faces and in interpreting facial expressions or gestures; conversely, their own expressiveness is frequently reduced, rigid and desynchronised from that of their interaction partner.[62] This leads to a basic alienation from the social world and to autistic withdrawal.[63]

[60] Taken from Parnas and Handest 2003.
[61] Locke 1975, II, xxvii, 9; Parfit 1984.
[62] Cf. e.g. Berndl et al. 1986; Steimer-Krause et al. 1990.
[63] Parnas et al. 2002.

The way other people live and their interactions appear basically incomprehensible. Examples are also given by Stanghellini:

> "When a child, I used to watch my little cousins in order to understand when it was the right moment to laugh, or to see how they managed to act without thinking of it before. It is since I was a child that I try to understand how the others function, and I am therefore forced to play the *little anthropologist*."[64]

> "I lack the backbone of rules of social life. I've spent whole afternoons at parks observing how others interact with each other."[65]

The schizophrenic disturbance of "common sense"[66] manifests itself in wonder or puzzlement when faced with the complexity of society, in a lack of intuitive knowledge of social behaviour, and finally in an attempt to make good this lack through explicit rules or "algorithms" which the patients have learned from observing others. They have not developed a certainty of contemporality, the unquestioned assurance of living with others through a shared time, in emotional resonance and synchrony. To this is added the excessive stress generated by simultaneously verbal and non-verbal interaction, which makes particularly high demands on the protentional–retentional processing capacity (cf. the case presented on p. 11). In the light of all this, autistic withdrawal in schizophrenia can also be understood as an attempt to reduce the complexity of the social sphere and to compensate for the lack of the ability to synchronise, by avoiding overcharging interactions.

An even more serious disturbance of intersubjective temporality is found in *schizophrenic delusion*. It can be understood as a failure of the ability to take the other's perspective, in other words to enter into the open dialectic movement of a conversation taking the other's point of view into account. In this movement, new aspects can lead to a change in one's own point of view, which in turn can prompt the other to modify his perspective, and so on. Typical of the delusion is now the re-interpretation of all opposing evidence according to a rigid cognitive schema. In delusions of persecution, the most harmless event is seen as a particularly subtle attempt on the part of the putative persecutor to deceive the patient; in erotomania paranoia, every rejection on the part of the supposed lover is regarded as an indication of the exact opposite, that means, his secret love, and so on. The interpretation of all communications within the delusional framework thus excludes the intersubjective dialectic and with it, the open future. Alternation between one's own and the other's perspective is frozen, and the other appears only in a uniformly rigid point of view. Since the delusional frame suspends the mutual relativization of perspectives, the intersubjective constitution of reality is severely disturbed.

Delusions thus permit the patient to re-integrate the irritating fragments generated by the basal disintegration of time where consciousness comes too late, as it were (see p. 13 above): The intrusions, inserted thoughts, passivity phenomena and other fragments of the broken intentional arc are "re-temporalized" at the explicit level,

[64] Stanghellini 2004, p. 115.
[65] Ibid, p. 99.
[66] Blankenburg 1969/2001, Stanghellini 2004.

namely reintegrated into a fixed delusional narrative. It is 'others' who influence, manipulate or control the patient for certain sinister reasons. The other, as it were, enters into the gaps of the intentional arc and gives a reason for the alienated fragments that emerge from them. The disturbance of the patient's intentional directedness towards the future leads to an 'inversion of intentionality'[67]: Instead of actively perceiving, thinking and acting, he is being perceived, thought of, and acted upon by others. Through this, the basal disintegration loses its existential menace to some extent: the '*ontic*' *threat* posed by presumed persecutors to the empirical subject is lesser than the '*ontological*' *threat* presented by the imminent loss of the transcendental self.[68] The price to be paid for the neutralisation of this danger, however, consists in a loss of the "now", namely the intersubjective present with its open future.[69] *The frozen reality of the delusion arrests the course of explicit, biographical time in order to compensate for the fragmentation of the lived time*.

To summarise: according to the view presented here, and in line with the approach put forward by Parnas and Sass,[70] the fundamental disorder or "*trouble générateur*" of schizophrenia consists in a *weakening and temporal fragmentation of basic self-experience*. It appears in pre-morbid or chronic phases as a lacking sense of self-coherence which undermines the habitual conduct of life and needs to be compensated for through rational reconstruction at the explicit time level. In acute phases, it manifests itself in an increasing fragmentation of the intentional arc, and of the self-coherence linked with this on the micro-level of time consciousness, resulting in the appearance of major self-disturbances (such as thought withdrawal or insertion, hallucinations and delusions of influence). In all phases, this disturbance of self-constitution is accompanied by profound desynchronisations of intersubjective temporality which culminate in delusion as a "frozen reality", detached from the ongoing intersubjective constitution of a shared world.

Depression as conative desynchronisation

Let us now turn to a second psychopathological paradigm of disturbed temporality, namely depression. In his description of his own serious depression, the Dutch psychiatrist Piet Kuiper writes:

> "What has happened cannot be reversed. It is not only things that pass by: opportunities also vanish unused. (...) The true essence of time is irredeemable guilt."—"Time becomes for me an oppressive burden."—"The deepest abyss that I fall into is the thought that even God cannot help me since he cannot undo what has happened."[71]

In melancholic depression, time becomes explicit to such an extent that it turns into a constant burden of guilt and omission. Indeed, it is *reified* to the point of becoming an irreversible facticity of the past, on the one hand, and an inevitable, predetermined

[67] On this, cf. Fuchs 2007a.
[68] On the ontological difference in schizophrenia, see Sass 1992b.
[69] See above, p. 9, especially footnote 26: "The transition of the present to the future is not the act of a lonely subject but the intersubjective relationship" (Levinas 1995, p. 51).
[70] See above, footnote 48.
[71] Kuiper 1991, pp. 58, 157, 162.

future on the other. The psychotic culmination of this form of experience in delusions of indelible guilt or imminent death indicates that we are dealing here with a basal disturbance of constitutive temporality as well. On the other hand, the schizophrenic incoherence and blockade of thought to the point of thought withdrawal is fundamentally different from the inhibition and retardation of thinking in depression, so that here we have to try to describe the disturbance in temporalization differently.

Phenomenological psychopathology has attempted to do this in different ways,

- in the "relational" concepts of a stagnation or "remanence" of personal time as against the world time[72]; and, on the other hand
- in the "dimensional" concept of a disturbance in the unfolding of the time ecstasies of past, present and future.[73]

In both concepts, however, the depressive's time pathology appears as an inhibition of individual temporalization in the first place. Based on the analyses in "Basic structures of subjective temporality", I will in the following give a two-level interpretation which describes depression on the one hand as the result of an *intersubjective desynchronisation*,[74] and on the other as a *disturbance of conation* ("vital inhibition"). This analysis thus adopts elements of both the above concepts in modified form.

Triggering situation: desynchronization

Already Tellenbach characterised "*remanence*" (i.e. falling or lagging behind) as the typical triggering constellation of melancholia. This includes failure to fulfil obligations and to satisfy expectations, stress generated by the rapidity of external changes and the inability to realise the transitions required at the various phases of life (change in social role, a child leaving home, serious losses, career stages, moving house, etc.).[75] A most important role in this desynchronisation is played by the inability to grieve: It seems too threatening or too painful to give up familiar patterns and attachments so that the patient remains frozen in the past. However, this means that he will fail to perform the active synthesis of biographical time described in "Explicit or experienced time" as the task of the personal or narrative self (see p. 6 above): *to realise and fulfil time oneself*, that means, to integrate one's past again and again with the future (and this also includes *closure* with the past), *is the prerequisite for not falling a victim to time and becoming dominated by it*.

The inability to let go of the past is characteristic of the "*typus melancholicus*" whose prime endeavour is to avoid differences with his social environment as far as possible. The hypernomia which Kraus worked out to be the hallmark of the melancholic's social identity is also a "hypersynchrony".[76] Right down to the fine

[72] Cf. on this point, see the classical texts by Straus 1960, v. Gebsattel 1954 and Tellenbach 1980.
[73] For example, Kraus 1991; Kupke 2002.
[74] On this, cf. also Fuchs 2001a.
[75] See Tellenbach 1980. There is a host of more recent literature on the role of triggering life events related to the patients' social relationships; cf. for example Vilhjalmsson 1993; Kessler 1997 or Kendler 2003.
[76] Kraus 1987. Using Minkowski's (1970) distinction of 'schizoidia' *versus* 'syntonia' as basic personality types, one could also characterise the melancholic type as *hyper-syntonic*.

details of daily interaction, the melancholic strives for continuous resonance, harmony, punctual performance of duties, and social concord. He must owe nothing to anyone since his identity essentially depends on the role society has assigned to him. Expressed in terms of social identity theory, the finished, defined and reified object-ego predominates in the *typus melancholicus* over the becoming, spontaneous and constantly self-projecting subject-ego—in Mead's terminology the "*me*" over the "*I*", or the fixed role over the open project.[77] The dominance of facticity or of the "having become" means a lack of maturation and development of the person. This is what makes the melancholic vulnerable to the inevitable changes or breaks in biographical roles which happen sooner or later: He then becomes "stuck in the past".

Manifest illness: vital inhibition

The depressive illness now corresponds to a switch from an intersubjective or existential into a more fundamental, biological desynchronisation. Accordingly, the disturbance of intersubjective temporality could be seen as a "switching point" which elicits a reaction of the entire organism, namely a psycho-physiological slow-down or *stasis*.[78] Initially, there is a disturbance of biological periodicities such as the neuro-endocrine cycles, circadian temperature rhythms and the sleep/wake rhythm. The loss of drive, appetite, libido, interest and attention, however, also means a reduction of the *conative–affective dynamics of implicit temporality.* This loss of conation manifests itself, on the one hand, in psychomotor inhibition, thought inhibition, and in a slow-down or standstill of lived time. It is also expressed in an increasing rigidity of the lived body whose materiality, under the normal circumstances of life, is suspended, but now makes itself felt in depressive disturbances of vitality such as heaviness, exhaustion, oppression, anxiety and general restriction. We may speak of a *reification or corporealization of the lived body.*[79] In serious cases, this develops into depressive stupor, accompanied by a veritable torpidity of the body.

With the fundamental loss of conation, the depressive psychopathology further increases the social desynchronisation. Vain attempts to keep up with events and obligations reinforce the feeling of remanence. To this is added the loss of intercorporal resonance: Whereas conversations are normally accompanied by the synchronisation of bodily gestures and gazes,[80] the depressive's expression remains

[77] Mead 1934; cf. on the concepts of object- and subject-ego in melancholia, especially Kraus 1991.

[78] From the socio-biological point of view, depression can also be understood as an evolutionary protective mechanism in situations of social stress or defeat which consists in a psycho-physiological block or paralysis, in passive-submissive and humble behaviour towards other members of the tribe, and which dispenses the individual temporarily from social demands and competitive situations (cf. Pillmann 2001). On the other hand, the biological level may also play a leading role in the aetiology of depression, e.g. when it is triggered by a severe somatic illness. Similarly, after repeated episodes of depression its neurobiological pathways are facilitated to such an extent that even minimal irritations may trigger a new episode.

[79] Cf. Fuchs 2005a.

[80] Cf. e.g. the studies of facial expression by Krause and Lütolf (1989).

frozen and his emotional attunement with others fails. Connected with this is an inability to empathise with other people and things, to be addressed or affected by them. The patients painfully experience their lifelessness and rigidity in contrast to the dynamic life going on around them. This state, often described by the patients themselves as a "feeling of not-feeling", can also be seen as an *affective depersonalisation*[81]: The basal experience of the self, as we saw (p. 4), is not only bound up with the transcendental synthesis but also with the transcendental self-affection. Hence, the failure of conative–affective dynamics is accompanied both by a loss of basal contemporality with others and by a profound alienation from oneself.

Reification of time

Let us now consider the *explication and reification of time* as described by Kuiper above which runs parallel to the reification of the lived body. With progressive desynchronisation, the "no-longer" and the "too late" become more and more dominant, and explicit time is experienced as a painful burden (see p. 9 above). The depressive drops out of shared time, he lives in an "anachronistic", slow-moving time of his own. External, intersubjective time continues for him, too, but it "passes him by". This decoupling makes it for him merely an empty time which he can no longer live or fashion himself. The disturbance of temporalization can also be demonstrated experimentally: depressives experience a stretching of time, that means, they estimate given time intervals as longer than the actually measured, socially constituted time.[82]

"Time degenerates into mere succession when our ability to fulfil time falters", writes Theunissen.[83] This reified, spatialised time can also be subdivided in the way that, normally, only physically measurable time can be. An expression of this is the not infrequent appearance of iterative or compulsive symptoms. A classic example for the fragmentation of experienced time is provided by von Gebsattel in the "itemising compulsion" of a depressive patient:

> "I have to keep on thinking that time is continuously passing away. As I speak to you now, I think 'gone, gone, gone' with every word I say to you. This state is unbearable and makes me feel driven. (...) Dripping water is unbearable and infuriates me because I have to keep on thinking: another second has gone, now another second. It is the same when I hear the clock ticking—again and again: gone, gone."[84]

The patient experiences time in fragments ("stuttering") because she cannot experience it in the flow of spontaneous becoming but as something remaining outside her. She must subsequently go back to everything that she was not able to live through in perceiving and acting, however, only to notice that the impression or the movement is already "gone". This has superficial similarity to the schizophrenic

[81] Cf. Fuchs 2000, 107, 138; Kraus 2002.
[82] On this, see Bech 1975, Kitamura and Kumar 1982, Münzel et al. 1988; Mundt et al. 1998.
[83] Theunissen 1991, 304.
[84] v. Gebsattel 1954.

delay (see p. 12 above). But here the constitutive synthesis of inner time consciousness remains intact (therefore the patient's experiences do not appear as foreign to her or as externalised). What is lacking instead is the conative dynamics, and thus the affective tension that carries the intentional arc forward. This once more illustrates the difference between the constitutive synthesis and the conative dynamics of lived time (see p. 3f. above). The first signifies a formal property of the flow of consciousness, namely a coupling or mutual relation of conscious moments creating a span of lived time which is necessary for the continuity of self-awareness. In contrast, the second means the energetic or dynamic quality of the flow which allows us to "hold pace" with the sequence of events, or causes us to lag behind (as in depression), or else to surge ahead of them (as in mania). Correspondingly, we have to distinguish between *thought incoherence* in schizophrenia, *thought inhibition* in depression and *thought acceleration* or "flight of ideas" in mania.[85]

The reification of experienced time also relates to the "time ecstasies" of past and future.[86]—On the one hand, the depressive cannot tear himself away from his past. Mistakes made long ago are experienced as if they had just been committed—a paradox, which, to speak with Kimura,[87] can be expressed in a continuing *perfect tense* instead of the *preterite*. "I understand that the time may be past, but the past is still present as an accusation", is Kuiper's description.[88] In the perfect tense, the past is not actually over, it can no longer *be forgotten* and becomes a facticity accumulated in the present. Guilt in particular turns into a fixed "thing" which cannot be obliterated in the future through the continuing development of relationships to others: "One has said things which cannot be made unsaid; one can no longer escape from what one has done."

The dominance of the past is only the reverse side of the slowing conative dynamics, a lack of drive, interests and desires which are normally orientated to the future. For its part, the future loses the character of openness, novelty, surprise, and becomes reified as inevitable fate or calamity, at least to a rigid continuation of the past or a recurrence of the same.

> "The fact that symphonies come to an end frightened me. The way a piece of music moves towards its end in accordance with an inner logic and even hurries towards it in an irreversible sequence—that was the course of my life, and what happened in the past is unalterable, irrevocable."[89]

[85] This distinction does not yet cover all possible pathologies of time consciousness. In obsessive–compulsive disorder, for example, a lack of the affective loading of the intentional arc manifests itself in the typical "sense of incompleteness" (Summerfeldt 2004; Ecker and Gönner 2006). This forces the patients to repeat their actions again and again, in vain seeking to achieve a sense of "closure", that means, a feeling of having performed these actions "just right". Of course, the mere cognitive awareness of having done so is preserved and there is no experience of discontinuity, no interruption of the intentional arc. It is the experience of fulfilment that is missing.

[86] Work has been done on the reification of time in melancholia especially by Kobayashi (1998, pp. 163ff.).

[87] Bin Kimura, Time and Self, Tokyo 1982; quoted after Kobayashi 1998, p. 168.

[88] Kuiper 1991, p. 156.

[89] Kuiper 1991, p. 168.

Future is here experienced as a process leading to an irreversible end which is known from the past. It adopts itself the perfect tense and thus becomes *the future perfect*, especially in the form frequently used by patients in their complaints: the feared event (ruin, punishment, death) *will then have certainly taken place*. The future is thus obstructed, occupied by the fixed present or past. In reverse, as Binswanger remarked,[90] the future subjunctive withdraws into the past and becomes past subjunctive, an empty possibility: "*If only I had done*/*not done this*". Such phrases manifest the vain attempt to retrieve the lost scope of possibilities in the past.

In both the past and the future dimension it is thus clear that time in depression, instead of being lived or actively synthesised by the patient, dominates him as a reified, distressing power. The past no longer disappears but remains present like an incubus, whereas the future no longer opens up but becomes a solid obstacle.

Melancholic delusion

Complete desynchronisation from intersubjective time is marked by the transition into melancholic delusion. It can be understood as the explicit representation of the disturbed conative temporalization at the basic level: Past and future have now been finally fixated, frozen in the perfect tense of irreversible guilt and in the future perfect of certain ruin, disintegration or death. At the same time, a return to a shared intersubjective time has become unimaginable. The others are separated from the patient by an abyss and can no longer be reached. With the freezing of self-temporalization and the loss of contemporality the flexibility of perspective-taking is lost as well, since this is essentially based on an open future providing possible alternatives to one's convictions. The patient, however, is forced *to equate his self with his current experience*: "It has always been and will always be like this"—to remember or hope anything different is an illusion. Even the explicit memory of a recovery from an earlier depression remains abstract for the patient and does nothing to change the hopelessness of the present situation. The same is true of his past integrity which was nothing but a sham in view of his actual depravity—it was only a pretence, a fraud.

In *nihilistic delusion*, desynchronisation reaches its extreme, namely a loss of contact with reality, resulting in two parallel worlds.

> A 65-year-old patient was convinced that her body, her stomach and her entrails had contracted so much that her body no longer had any cavities. Her entire body was desiccated and decayed, she no longer felt anything. Her environment also appeared empty and remote to her. Finally she said that all her relatives were already dead, she was alone in the world and must continue to live in her dead body for eternity.[91]

[90] Binswanger 1960, pp. 26f.
[91] Cf. Fuchs 2000, 112.

In this case, the reified body is experienced literally as a corpse, and the others are dead. Shared lived time no longer exists and its place is taken by a frozen time, a "negative eternity". We find a similar description in Kuiper's report:

> "Someone who looked like my wife walked beside me and my friends visited me. (...) Everything is exactly as it would be if things were normal. The figure which pretended to be my wife constantly reminded me of how I had failed her. It looks like normal life but isn't. I found myself on the other side. And now it became clear to me what the cause of my death had been (...) I had died, but God had kept this event out of my consciousness (...) It is hard to imagine a more severe punishment. Without realising that one has died, one finds oneself in a hell which, in all its details, is like the world that one used to live in. This is how God lets one see and feel that one has made nothing of one's life."[92]

Here, the world has taken on the form of an illusory scenery functioning as a perfidious criminal court; the others have become fakes or phantoms. The complete decoupling from intersubjective time and the loss of resonance with the environment can obviously be described only by using death as the metaphor. With this, the nihilistic delusion comes close to the schizophrenic's transcendental depersonalisation, although it is based on the loss of the conative–affective dynamics instead of a breakdown of transcendental synthesis.

In summary, melancholic depression is mostly triggered by a desynchronisation of the individual from his environment, which then develops into a physiological desynchronisation. As an inhibition of vitality, it then proceeds to include the conative basis of experience and thus also the basic self-affection. The resulting retardation of lived time reinforces decoupling from the social environment. Subsequently, time emerges explicitly and in reified form, in particular as a reification of the past and the future. No longer able to live time actively, the melancholic succumbs, powerless, to its dominance. In depressive delusion, in the end, he loses the flexibility of perspective-taking which presupposes an open, undetermined future. He is now entirely identified with his present condition without being able to gain any distance. Thus, in melancholic depression, a disturbance in the relational, intersubjective time is linked to a disturbance of the dimensional order of time (see p. 21f. above), but both on the basis of the fundamental conative disturbance.

Summary

The aim of the study was to describe the basis for a psychopathology of subjective and intersubjective temporality and to apply it paradigmatically to two key psychiatric illnesses. For this, I made a distinction between *implicitly lived time* and *explicitly experienced*, *biographical time*: (1) implicit time is based on the twofold constitutive or transcendental premises of protentional–retentional synthesis and conative–affective dynamics. Both are linked to the coherence and continuity of basic, pre-reflective self-experience. (2) Explicit time results from an interruption

[92] Kuiper 1991, 136.

and negation of the primary duration, and unfolds itself in dimensional time of present, past and future. Synthesis is required also at this second level, which is performed through the *active personal fulfilment of time*, namely through the ever renewed integration of a projected future and an appropriated past. This is how the personal biography is constituted.

Both levels of temporality are closely bound up with intersubjectivity: at the implicit level, we are linked with others through *basal contemporality or synchronicity*, first and foremost on the basis of intercorporal resonance. At the explicit level, experienced time results especially from d*esynchronisations*—remanences or antecedences—in the relation of one's own time to social time. The time which faces us from outside as a seemingly independent power is perceived primarily in relation to social processes and with respect to others. Disturbances of the subjective syntheses of time, whether it be at the implicit pre-reflective or at the explicit personal level, exercise a direct influence on intersubjective temporality and *vice versa*.

Both the paradigmatic illnesses studied here—schizophrenia and melancholic depression—primarily affect the basal level of lived time. In schizophrenia, *a weakening and fragmentation of temporal self-coherence rooted in ipseity* may affect the constitutive synthesis of inner time consciousness, leading to a fragmentation of the intentional arc, thought incoherence and major self-disturbances. On the other hand, in more basic stages of the illness, a gradual diminishment and depletion of conation becomes conspicuous as well. In contrast, melancholic depression is characterised by a *phasic inhibition of conation and affectivity* which does not lead to a fragmentation, but to a slow-down or standstill of lived time.

As especially the example of melancholia has shown, disturbances at the constitutive level of temporality are closely related to and interact with disturbances and desynchronisations at the personal and biographical level. However, in both melancholia and schizophrenia the explicit or personal dimension of time experience is not suited to capture the crucial temporal disturbance. It is different with reactive, neurotic or personality disorders: taking place only within the biographical level of temporalization, they do not affect the basal experience of the self, but may well lead to fragmentations of the narrative identity.[93] Such psychopathological phenomena of temporality require further study in another investigation based on the concepts developed here.

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[93] Cf. e.g. Fuchs 2007b.

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