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CONSCIOUSNESS AND REALITY: A NEUROPSYCHOLOGICAL PERSPECTIVE

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*The leaf does not see that
the root is everywhere.
Goethe, The Metamorphosis of Plants*

SUMMARY

The present article reviews, extends and raises further questions concerning some of the neuropsychological and philosophical aspects of the microgenetic theory of the self, consciousness and the mind-brain state. The theoretical approach of microgenesis, or process-theory more generally, is gaining new adherents in neuropsychology and cognitive psychology, while its initial formulation and grounding in clinical studies have received scant attention. Therefore the aim of this paper is to acquaint the reader with some implications of the approach for neuropsychology and for philosophy of mind. Hopefully, it will also stimulate a closer examination of some claims in the current literature for the originality, even the “revolutionary” status, of supposedly “new” concepts of self, perception and consciousness, while their priority and greater specificity in microgenetic theory have been largely overlooked.

Key words: the self, non-self, self-knowledge, the dream self

INTRODUCTION

The concept of a *phase transition from a core self to a cognized world as a continuous sheet of mentation, with sensation sculpting (constraining) but not entering an endogenous process of object formation*, has been a central aspect of the microgenetic theory for over 35 years (Brown 1977; 2005, 2007; Paçhalska, Kaczmarek & Kropotov 2014). So also for the account of *self and objects as categorical*, the description of the *present moment*, the relation of the theory to *subjective time and memory*, and its implications for the theory of *internal relations* and an *event-ontology*. The clinical data and neurological correlates of the theory, not discussed in this article, have been described in some detail and presented in many publications (Brown 1977; 1988; 1991; 1999; 2004; 2005, 2007; Paçhalska 2002; Paçhalska, MacQueen, Brown 2012, 2012a; Paçhalska, Kaczmarek & Kropotov 2014; MacQueen 2003, 2007; 2008). The reader is referred to these publications for data and arguments that support the account in this article.

It should be noted that the theoretical approach of microgenesis¹, or process-theory more generally, is gaining new adherents in neuropsychology and cognitive psychology, while its initial formulation and grounding in clinical studies have received scant attention. This article is intended to acquaint the reader with some implications of the approach for philosophy of mind. Hopefully, it will also stimulate a closer examination of some claims in the current literature for the originality, even the “revolutionary” status, of supposedly “new” concepts of self, perception and consciousness,² while their priority and greater specificity in microgenetic theory have been largely overlooked.

CONSCIOUSNESS AND AWARENESS

For the present purposes, *awareness* is defined as the *relation of a subject to external objects and bodily states* (Fig.1). A *subject* is the subjective whole of the organism, excluding its external portion. An *object* is the external portion of that whole, perceived as existing outside the organism. An object is a perceived event. An *entity* is a physical event postulated to exist outside perception. The external or objective world is defined as a segment of the subjective that has objectified. In contrast, the physical world is the world of physical entities.

A subject is antecedent to the object. The *relation* is the uni-directional process of becoming through which subject, then object, actualize. *Awareness* is the waking state of small child, not unknown in animals and the foundation of

¹ Microgenesis it is the recurrent actualization of a series of phases from inner core to outer surface that mediates every act of cognition. The process develops in relation to phylogenetic stages in forebrain evolution, and is retraced in the growth patterns of ontogeny. Every traversal from onset to termination constitutes an absolute mind/brain state and an indivisible epoch of duration.

² Some examples are publications by Llinas (2001) or Kosslyn (2006) on the image-basis of perception that are fully consistent with, though fail to cite, earlier microgenetic accounts, or Edelman's notion of consciousness (1992), which postulates a bottom-up transition by constraints, precisely that of Brown (1977) et seq.

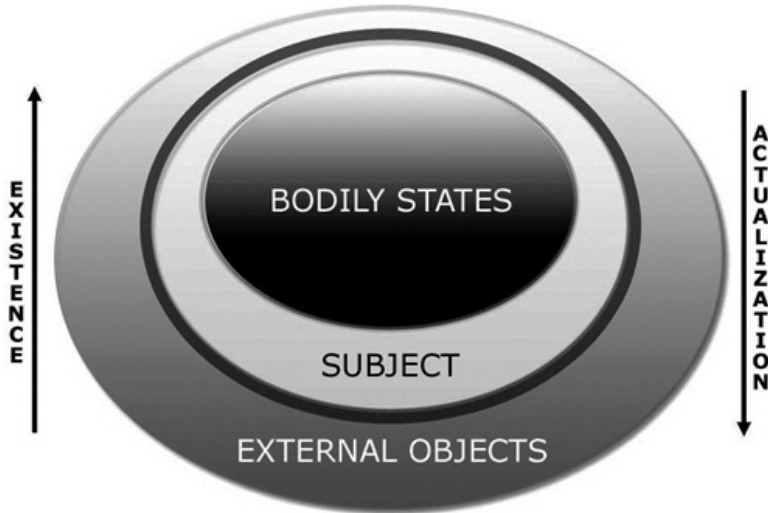


Fig. 1. The subject is the whole of subjectivity, which includes the body, space and external objects. The direction of actualization – or becoming – is from the instinctual core of the subject into the body and objects in space. The trajectory from core to object – which comprises one epoch of subjectivity – actualizes the being of the state. The completion of one cycle of becoming-into-being gives existence to the state. The object appears as the outer portion of the state but its existence requires the entire transition. An object is the exteriorized portion of the subject. It is a subjective event. It differs from a physical or noumenal entity outside the subjective field, which similarly exists over the duration – temporal extensibility – of its own actualization

consciousness. One can have awareness without consciousness, since the former, from an evolutionary, maturational and microgenetic standpoint, is the earlier state. But one cannot have consciousness without an implicit state of awareness, since consciousness arises on this foundation (Pachalska 2007).

Consciousness is defined as the *relation of a self to inner and outer objects*.³ The relation arises in the process through which images and objects objectify. The relation of the self to inner objects is introspection or reflection. The relation of the self to outer objects is exteroception or perception.

Conscious perception differs from object-awareness. In the latter, the subject-as-a-whole is aware of external objects. In the former, a self is conscious of objects. The self is a segment in the stream of outgoing subjectivity aware of its own priority and subjectivity.

A perception by a subject differs from a perception by a self, even if the “same” object is perceived. Objects carve out the boundary of a subject. There are no inner objects, only different states of subjectivity, e.g. anxiety, anger, hunger, etc. The subject is what is left after its world is subtracted. In contrast, the self is buffered from the world by the subjective field. The self withdraws into this field in reflection, or remembrance. This field can be a private hell or it can offer respite

³ The original meaning of consciousness was self-consciousness (Ward 1933)

and sanctuary. Because the self is in relation to its own subjectivity, it does not have the immediacy of action that occurs in a subject. The self, along with images, thoughts, feelings, etc. is most emphatic when a delay in behavior dilates the automaticity of direct awareness (Pachalska, Kaczmarek & Kropotov 2014).

An image or idea is a segment *en route* to a perception or an utterance. In a rapid traversal, action and perception dominate consciousness. If I am not thinking of anything in particular, I am still conscious of the world as the circumference of my point of view. When a thought or image comes into prominence as the dominant focus of attention, external space recedes to an ambient field that grounds the inner figural content.

We 'think up' the world we perceive. This thought-up world is a model of an inferred physical world that impacts on the brain (Brown 2015). The accuracy of our model of the world can be tested, but it is still a model. Walking, touching, chasing are kinds of tests. The model of reality depends on the type of organism and the adequacy of sensory data. The world may be thought-up, but without the constraints of sensation, thought alone cannot sustain the world. The rationality of thought depends on its proximity to the world, i.e. to the accuracy of the model. The approximation to an objective world determines the content of the state, e.g. daydream, reverie, fantasy, hallucination, delusion, etc., phenomena that actualize at different points in the object-formation (Pachalska, Kaczmarek & Kropotov 2014).

Without an objective world, thinking is dreaming; psychosis is an intermediate phase.

DEVELOPMENT

Mind divides into subject and object, but separation is ubiquitous. Every entity is a contrast. In organism there is mitosis, birth. Mitosis is the model of individuation as complexity grows *from within*. Germinal processes are the forerunners of the cognitive process. The shedding of superficial layers of skin from multi-layered ectoderm is analogous to the actualization and perishing of perceptions over layers in the brain that are also derived from ectoderm. The phyletic and morphogenetic pattern of exuberant growth, and competitive elimination by sculpting or parcellation, continues in the selection by way of inhibitory constraints on context-item or whole-part transitions in the microgenesis of thoughts, objects and feelings (Pachalska, Kaczmarek & Kropotov 2014). This trimming of redundancy to achieve a specificity of connectivity in the developing brain becomes the cascade of whole-part shifts that, by inhibitory filtration through constraints of habit and sense-data, is guided to specify potentiality at each phase into the most adaptive resolution.

The origin of mind is postulated to begin with the minimal duration of existence, or temporal extensibility, of a physical entity (Sprigge 1983). An expansion within the temporal extensibility of complex entities eventuates in a duration that enfolds feelings and concepts in a mental state. The microgenetic theory of the

present in relation to the epochal nature of physical entities, i.e. the minimal duration for the organism to be what it is, has been discussed elsewhere (Brown 1991, 2004; 2004a; 2005a; 2005b; 2007; 2015).

It is argued here that consciousness is the outcome of a continuous series from inorganic to organic, as complexity and organization increase in an epoch of existence that expands to accommodate it. The initial state of mind is a division of intrinsic relations in the epoch to a subjective and objective moiety, an early segment giving the organism, a later segment the perceptible world, a partition that divides mind into subjective core and objective surface.

For the suckling, the world consists of a global object, the breast. Action and perception are bound together in a single performance. Sucking is enacted in the axial space of the body. An external field close to the body, relatively undifferentiated and incompletely detached, extends to the immediate surround. The pre-object is gestalt-like; its features, e.g. the mother's face, smile, are not clearly articulated. The breast is grasped and sought for - thus extrapersonal - but still within the sphere of organism. The initial distinction of subject and object registers in behavior, not thought. With a distinction in thought, there is a shift from awareness to consciousness.

Initially, the unconscious core is equivalent to the *whole of the subject*. Gradually, an implicit core develops within the subjective field. The core, an early phase in the epoch, is the seed of personality, the first sign of which is probably a delay before action. In higher mammals and young children, perhaps expressed in temperament or attachment, the core shows the first tendency to individuality. Prior to its appearance, behavior seems regulated by mechanism: instinctual drive, environmental signal, consummation. The core is unconscious mind, dependent on drive and the immediate occasion. With an accentuation of the core in relation to the object world, individuality and awareness show a gradual advance over the mammalian series. At some point, one speaks of the "personality" of the animal, as that which distinguishes it from others of its type. The human infant shows the seeds of individuality. Out of the core an empirical (explicit, conscious) self is shaped by beliefs and values. The self, guided to actuality by sense data, is conscious of internal and external objects, fixed in the present yet able to attend to events in the past and plan for those in the future.

As partition continues, object- and lexical-concepts, images and feelings, punctuate the subjective pole. At the objective pole, value penetrates objects with greater specificity and refinement. The present expands to encompass events of greater duration, enclosing a perceptual narrative of self and experience. The bodily space of the core expands to the perimeter of the arm's reach, i.e. a "manipulation" space, then beyond this perimeter to an external world that "detaches" from the observer. The action space of young infants transforms to the independent space of the conscious adult.

The articulation of private (image) space by conceptual feelings accounts for choice, decision and trial action. Feeling accompanies the object in its journey from core to world. A feeling in the self, such as desire, fractionates to a feeling

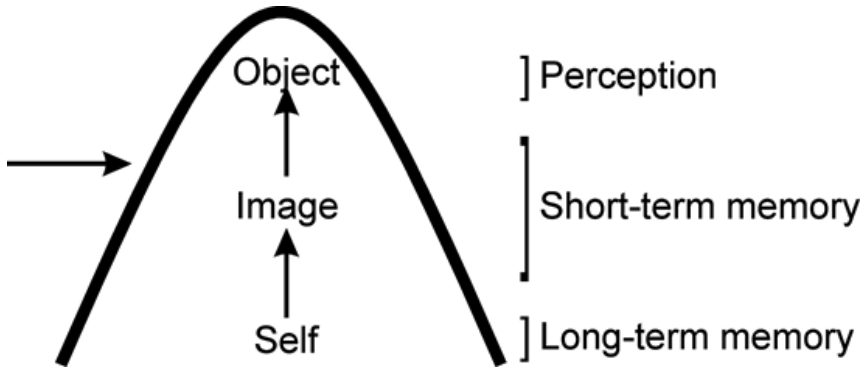


Fig. 2. Transitional phases in the mind/brain state, from unconscious core, to self, to an intra-psycho space of imagery, to the external but still personal space of the body, to the extra-psycho space of objects. The transition from core to object world in an epoch of becoming is replaced by the ensuing state (see Brown, 2005 for discussion)

in (with) the object, such as worth. The core is unconscious simultaneity embedded in bodily space. The end-point of the outward-going development is non-self (other, object) in three-dimensional space and linear time. Consciousness of time-order mirrors the perception of whole events. In contrast to the presumed instantaneity of physical transition, the present subsumes events as temporally extended wholes. The world is laid down as the final in a series of tiers in space formation. The transition from self to object is continuous (Fig. 2), though the mind/world boundary is felt as absolute.

The unconscious, the self, inner mental contents and the perceptible world are phases in the mental state. These phases and the sequence of their engagement, which are not readily accessible to reflection, are a *first order* inference from patterns of mental disorder. For example, an account of the structure of the unconscious (von Hartman 1893) was inferred by Freud (1957) from 'neurotic' and other alterations of everyday behavior. The self is inferred from the preservation of identity over successive states (James 1890) and its alteration in pathology (Brown 1988; 1999; Pachalska 2007; Pachalska, Kaczmarek & Kropotov 2015). The transitional process that leads from unconscious precursors to conscious objects is inferred from abnormalities of thought, perception and behavior (Brown 1988).

In this context it is important to emphasize again that genuine change occurs in the actualization of an epoch, and that apparent or illusory change occurs in the transition of one epoch to another. Genuine change is the becoming-into-being (existence) of an entity – the actualization of a category - while apparent change is the progression from one epoch of being to another, namely, the observed and presumed causal sequence of events in the world. An epochal state is an instance of being that is inert, its dynamic – becoming – exhausted in its formation. The process of entity creation is complete on the actualization of an

epoch of being (category, substance), which on achieving existence passes away in its replacement. The continuity of change depends on the overlap of epochs (Fig. 3).

It should be pointed out that we perceive events, not objects. An event is a more or less arbitrary duration over a series of recurrent epochs. The rate of replacement is probably constant for each entity, while event-duration, which depends on the limits of an event, can be rapid (a punch) or slow (a prizefight). The change is attributed to a changing or transitory object, i.e. to objects or events in the world, whereas genuine change in the observer's mind is imperceptible (Brown 2015).

Without the evidence of pathology, speculation would be restricted to what the mind knows of itself, and would miss completely the micro-transition that is its basis. The process of actualization or the relationality of change in duration that constitutes the mental state is imperceptible. Self-knowledge is fixed on content, *opaque to the process through which content actualizes*.

According to microgenetic thinking (Brown 2005; 2015), the initial construct arises in a brainstem or hypothalamic pacemaker and passes to archaic planes of limbic cortex that mediate the core self. Here are the configural correlates of forgotten memories, the irretrievable residues of early experience, "drive representations," and the core beliefs and values instilled in childhood. This phase of personal memory, emotion, value and belief establishes the biases, dispositions or presuppositions that ground character and the fundamental traits of person-

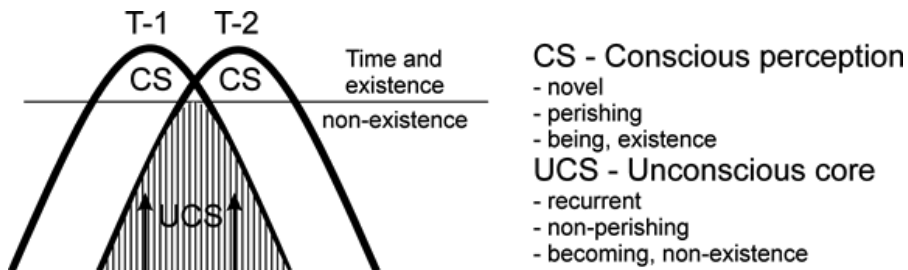


Fig. 3. Phases in short-term or working memory are generally revived in ensuing states in the order of their registration, i.e. in relation to their resemblance to the oncoming state and, thus, their capacity for revival. Images closer to the current perception, i.e. those in short-term memory that almost achieve re-perception, are most likely to be revived in the current state. The mind/brain state at T-1 is replaced by an overlapping state at T-2. The core of T-1 is overlapped at T-2 before T-1 terminates, i.e. before the epoch exists. This explains the recurrence of early phases in T-1 associated with individuality, self, character, dispositions, long-term and experiential memory, and the "persistence" of core beliefs, values and personality. Later phases perish on completion of the entire state to make way for novel perceptions. The re-activation of earlier phases by the overlapping state explains the sustained personhood behind succession. Early phases are ingredient across states, later ones are malleable to a greater extent as endogenous process is shaped by sensation

Source: Pachalska, MacQueen & Brown 2012

ality. Intrinsic patterns of instinctual drive tempered by value in the developing configuration come into prominence with a relaxation of sensory input in the transit to limbic formation. The core retains the potential for diverse expressions of the personality, though in time it, too, is restrained by habitual tendencies in thought and behavior.

The physiological structure of the mind, i.e. the brain state, is postulated to consist of a transition over successive stages in brain activity (Pachalska, Kaczmarek & Kropotov 2014). The succession follows the pattern of growth in fore-brain evolution, a single derivation constituting the minimal mind-brain state (see below). Phases in the brain state are a *second order* inference on the origins of the mental state, an inference justified by the generally lawful pattern in which mind and brain degrade (Brown 1988). Further, everything we know about the brain indicates that it is the substrate of mind and the proximate source of experience. The physical world that impacts on the brain would then be a *third order* inference within the bubble of phenomenal immediacy. This *physical* world is known indirectly, but it must resemble the model elaborated in the mental state, for we could not survive in a radically different world. We further infer that we live in the same physical world as bats, insects and microbes, a world we can measure but not experience. However, the limits on human knowledge are not just those of access to the world and the varieties of experience and perspectives; they are built into the very processes that make experience possible.

THE SELF

The “me” is an individuated core that announces a separation from the other. There are intermediate phases, from the unconscious and implicit “me” of awareness to the “me” of conscious introspection. In the child, the “me” precedes the “I.” Does the “me” announce a division of the child from the world? Does it show the priority of the core? Is the child’s “me” the whole of its subjectivity, i.e. the child as a person? Is it the beginnings of a self? The self-referential behavior of apes seems to say, “give that to me!” Before this, the subject is carved out to an increasing degree from its environment. The “isolation cry” of infant monkeys is related to mesial limbic-derived neocortex, a region associated in fMRI studies with self-referential behavior, e.g. a phase in self-realization (Brown 1986). For some it is the rudiment of a primitive utterance, an ancestor of the self calling out, “help me.”

Does the core self of childhood inhabit the mature self, or is it erased and forgotten?

The forgotten experiences and ingrained values of youth, the relation to others, animal knowledge and instinctual tendencies grow into a configural arrangement that guides adult behavior. The child is truly father to the man, for much of the mature self is latent in biases laid down in the juvenile brain. The healthy

child is aligned with its destiny when it is striving to be an adult. The healthy adult feels what is genuine in its character by not letting go of the child.

When the child says “I,” a new world appears. Does the “I” imply a self, or is it a verbal gesture? The child doesn’t need a concept of other minds to call people by their names, or use the “you.” A person or an object seen in a “different light” – one says, with “new eyes” - is not seen again the same way. Once the first-person develops, it is not readily given up. Indeed, it grows stronger, fortified against every assault.

The “me” can give rise to many possible “I”s but the “I” of that moment is a commitment. We see a transition from the implicit and unconscious to the conscious and explicit in all areas of cognition, e.g. a word that individuates from the “mental lexicon,” a recollection from the “memory store.” We also see the correlates of this dissociation (transition) in pathology, e.g. procedural learning in amnesics, perception in hemianopic fields (Bender & Krieger 1951), semantic priming and preserved inference in the persons with global aphasia (Pachalska, Kaczmarek & Kropotov 2014), and so on. The transition from concept to object, store to item, lexicon to word, or unconscious to conscious, is not a transfer of *like* to *like*, as if the depth were a mere *container*. The transition of category to instance or whole to part occurs over a *qualitative* series of covert internal phases. Conscious particulars are not dormant constituents waiting for activation; they become what they are in a passage to individuality (Kosslyn 2006).

Goethe said, “Thinking doesn’t help thought.” Thoughts come into the mind like objects, passively (Eckermann 1984). Inner speech (verbal imagery) is often conceived as the principle constituent or derivation of the self, and a medium of thought. It can be experienced in relation to speech or speech perception, as something that happens *to the self*, like an auditory perception, or as something *the self does*, like a speech act (Brown 2004). In the passive condition, inner speech is “heard” by the self, rather than being produced by it. If the phenomenon intensifies, it leads to auditory hallucination. In the active condition, inner speech seems like an arrested utterance (*preverbitum*) that is a product of the “I.” This “I” is identified with the conscious self or ego, or felt as an instrument of its agency.

The silent “I feel, I want ...” of inner speech is experienced as a unit. Like the “I” in “I think,” it does not fully convey the wholeness of the self. One could think one thing and say or feel another. For the self, the “I” is most prominent not in action, but in states of indecision. Every action delimits the self’s potential. What one says, except in states of strong belief or emotion, does not adequately satisfy the possibilities of self-realization. Even in states of strong emotion, when the self is not hindered by uncertainty, a person may apologize after an outburst, or say, “I don’t know what came over me,” as if the self was distinct from, and overcome by, its own emotions (Pachalska, Kaczmarek & Kropotov 2014).

Such observations lead one to ask if the “I” is an agent or an ingredient. How is an act or a statement “connected” to the self? If the self is felt most strongly when words are not its medium, that would imply that it is not identical with the

inner flow of language. The self does not carry the whole force of the personality, but is an occasion of its employment. It is as though one were to ask, "When I snap my fingers is my 'whole self' behind the act?" Rilke put this quandary well when he wrote, "I want my own will, and I want simply to be with my will, as it goes toward action."

THE CORE SELF

What does it mean to say that "deep down" someone is awful, nice, etc. We mean by this the bedrock of character in a person, which action as often conceals as displays. We may sense a dissociation of character and conduct in a given situation, or perceive that certain traits overshadow others. From this, we infer a core self that is more enduring and authentic than its personae. There are many possible selves in the passage from depth to surface, and many possible worlds, but only so many forms of character; the greater the depth, the more generic the core, to community and to humanity. The core exhibits individuality in tendency more than type. This tendency strengthens as it passes to the uniqueness and individuality of the conscious self. Desires (fears, etc.), then preferences and tastes, are specific to the person. The derivation to the conscious self, to conceptual-feelings, ideas, images and affects, is a transition to increasing definiteness.

The core is closer to what is innate than the conscious self, yet there is no sharp distinction, of core and self, as of innate and acquired. The acquired is a progressive refinement of the innate. Sensory constraints delimit intrinsic force lines laid down in embryogenesis (Pribram 1991) that continue after birth in the realization of the mental state. What is "outside" mind never gets in, but creates a psychic model of itself. The external is simulated by limits placed on intrinsic pattern. *Sensation constrains, but does not enter, this endogenous process* (see Fig. 4).

The archaic gives the recent its force. The "must" of drive is the foundation of the mental state. This is mitigated to the "perhaps" of interest at its surface. Feelings tend to be muted as objects actualize. Intense feeling can express depth and authenticity, or agitation and passionate vacuity. Generally, feeling has "depth" when it involves the whole person. Genuine depth is inferred from, but not displayed in, *expressed* feeling. Depth is not what the self *does*, but what the self *is*.

Depth conveys a tacit knowledge that supports the particular contents of consciousness. Conceptual breadth infused with intensity informs thoughts and words but does not fill them. Intensity and narrow range are more important than generality or scope. Wide knowledge gives understanding (wisdom) when learning is conceptual, coherent and organic. Adding elements piecemeal gives disunity and artifice. Depth is like an ineffable fringe that is enriched from below by the same concept. It is tacit knowledge conveyed in silence, or an ambiguity behind the words that gives them power. Wittgenstein (cited by MacQueen 2007) wrote that his thoughts took on their power, not from the words, but from a light shining on them from below.

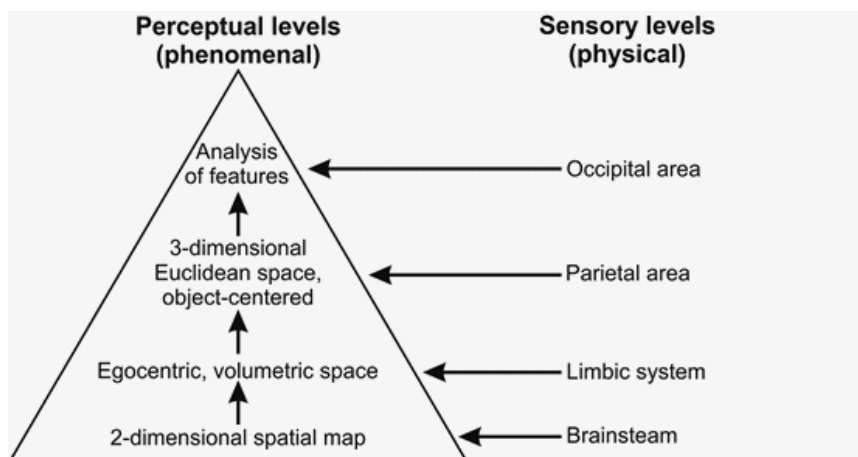


Fig. 4. The actualization into perception of the mind-brain state is constrained (sculpted) by successive tiers of sensation. At successive points, phases in object-formation realize beliefs and values, and the meaning, form and features of objects. On the action side, moments in the action development discharge into templates that import phases in the act into the physical correlates of axial, proximal and distal motility (from Brown 1988).

How can we zero in on the core self?

On the one hand, the character of an individual is judged by conduct, including verbal acts and gestures. On the other, we subvert accountability by justifications and excuses. When a person is angry we say he is frustrated or feels inadequate (unloved, etc.). Frustration, inadequacy or events in the life story are clues to understanding behavior on a given occasion. They allude to the presence of a sub-surface process out of which behavior is generated. Traits insinuated from the past conform to the obvious fact that past events shape present behavior, but what is causal or ingredient? Disappointment passes to joviality. Anger is replaced by affection. Do we want to say that the self is a *collection* of such moods?

SELF AND NON-SELF

Although a self never materializes, is still latent in the potential of the core. One who contemplates suicide but does not follow through still has the inclination. Some who never contemplate suicide might kill themselves if driven to it by adversity. What is conceived, considered, rejected, whatever goes into an idea, a feeling or a decision, issues from the “me” or core self. The “not-me” is *not* what is outside the “me,” but what is alien to the “I.” The core self is grounded in the wholeness of organism. It is undecided what is outside the “me,” since, like the unconscious, it has no posterior limit. The “I” partitions the core, setting the explicit self against the “non-I,” including in its potential all past and possible selves.

Much of the “non-I” is what is latent in the core. As the core crystallizes into a conscious self, other possible selves are bypassed or subdued. What survives

is what is obligated by the situation. The core does not deliver any conceivable self, only what is permissible, given the person's habits, predispositions and experiences. The conscious self arises each moment out of an implicit struggle. At every phase in the transition to an object, alternative possibilities are eliminated by intrinsic (habit) and extrinsic (sensation) constraints on the actualization. The idea of a conscious veto is merely consciousness of constraints close to the termination of the act.

Selves that survive into consciousness, as well as those unborn, have a share in the core. The share of a potential thought or feeling that has not yet been experienced is the ground of creativity and self-discovery.

What are the limits of the unconscious self?

A potential that has not actualized contributes to the fringe of character behind the self of the occasion. This background makes contact with the universal at the frontier of nature with the unconscious.

The ever-present "I" is the dominant element of discourse; I think, I feel, and so on. Even a neutral statement such as "grass is green" implies, "I profess, believe, claim etc., that grass is green." The self is the unacknowledged agent (or victim) for all personal events, which are its predicates. Thought is predicative. The self, or the topic of thought, is in the background, since it is already known to the thinker (Vygotsky 1962). The "I" precedes its predicate, and is only included with it as a kind of endorsement. The self is quietly enlisted as a substrate in the subject-property or topic-action relation.

The self declares its individuality in carving out one person from others. A subject requires an object. Selves require others for their own individuation. To be selfless is not to be without a self, but to revive the other in the self before it individuates. The reaching-out of genuine compassion begins with an exploration of the underpinnings of autonomy. Whitehead (2000) in writing that all real togetherness is derived from the indefinable togetherness that is found in a single experience. Self and other are generated within the now of the present mental state. In genuine compassion, the self becomes a predicate for the other. This is especially pronounced in visionaries or psychotics, who are servile to the commands of their own images. Probably, some commotion in a life is necessary to give up striving and become the felt object of another person's need.

Except in pathological conditions, a behavior "attached" to the "I" can be cut off and the "I" remain intact. The "I"'s actions can be prevented, many beliefs can be attacked or modified without great sacrifice, the "I" can be disgraced, praised, condemned, undermined and undergo radical change, but it is not effaced unless its neural correlates are damaged. It is difficult to imagine a person without an "I," an ego. Even the most unselfish, broken or compassionate of individuals begins a sentence with "I ...".

Systems of praxis such as Buddhism are based on giving up the "I." Self-denial for compassion or to diminish self-indulgence is of a different order than dis-

solution. It is one thing to argue that there is no self, and quite another not to have one. Similarly, to think the world is an illusion is one thing, to feel it another. The disappearance of the “I” that is the goal of meditation, were it to be achieved, would leave a state of awareness in a non-conscious mind. Some would claim that such a mind is one with nature, even with the separation of subject and object. The loss of self is a return to a condition of less specification and autonomy. In meditation, the expansion of the present accompanies a dilation of the “I” with loss of the consciousness of time-order. In such a present, there is no past or future; events are simultaneous. The simultaneity of events in an expanded now may recapture an awareness in which the self, external space and time order have not fully differentiated. In the retreat from consciousness to awareness it is claimed that all concepts are relinquished, but without a self conscious of oneness and in a state comparable to animal awareness one has to wonder at the point of the endeavor.

To insist on the illusion of self is to evoke the experience of non-self, not to feel the absence of self. What sort of experience would this be? If I accept the illusion of self, what am I left with? A self that believes it is an illusion? If I am convinced my self is an illusion, what is there to take its place? The illusion of a self that is conscious of being illusory would seem to arise on the intuition of a deeper, more genuine, or real inner nature. What is the origin of the illusion of self? This question has rarely been asked, even though, along with the reality of the external world, it is the most powerful illusion we have (Brown 1991).

The self distinguishes the illusory and the real by comparing one illusory object with another, e.g. the self with brain physiology, and asserting one of them as real (Cobb & Sherburne 1973; Brown 2004; Kropotov 2009). But the “real” is still an object of consciousness. It would be perverse to conclude that the self is an illusion, while the objects it perceives are real. Since an illusory self could not have certain knowledge of the real, objects perceived by an illusory self would also be illusory (Vaihinger 1924/1965). This depends on whether the real is equivalent to the non-illusory.

If so, what is the “real” that takes the place of illusion?

Consider the brain and perception as a celluloid film and a moving picture. The celluloid is felt to be more real than the movie because it does not represent something other than what it is, whereas events in the film have no actual correlates. We might think a documentary is more real than an ordinary film, but we are still looking at images, not “real” objects. Since all films (and objects) are images, it is not the imaginal or perceptual quality alone that counts for its unreality. Rather, there is a presumption that some mental objects – ideas more than dreams, words more than ideas, objects more than words – are more real than others, independent of whether or not the self is illusory.

SELF-KNOWLEDGE

Awareness and consciousness of awareness are descriptions of successive forms of the subject-object relation. To be *conscious* is to be conscious of something. This can be consciousness of being aware. That a self is conscious of awareness does not mean the self knows or has the experience of a *state of awareness*. The self cannot be conscious of states in which the self is not present. Consciousness develops out of the awareness-relation. A self arises in a subject. Objects appear as a subject objectifies. Ideas arise as formative phases in object-perception. An idea, an image, a concept refer to a conceptual phase prior to the completion and exteriorization of a perception.

The self-consciousness that is the explicit ground of philosophy – the inward turn to the mind studying itself - is not consciousness of self but of its “products” in mental objects. To eliminate the self is to contract the field of speculation to contents that occupy the more superficial layers of an abstract space between the unconscious and the outer world of perception.

Consciousness of awareness is still consciousness, not awareness with consciousness added on. It is consciousness of being aware. The self cannot reflexively apprehend “itself.” There is no genuine consciousness of self. The self is prior to the images of introspection that are its derivations. When Hume looked to his self and found only images, it was not because a self was lacking, but because the self cannot be an object of consciousness. The claim that there is consciousness of consciousness, and consciousness of that, and so on, is verbal confusion. Language opens up possibilities, it does not dictate phenomena. The possibilities grow out of trends or patterns; they are not descriptions of actual experience.

Take embedding in generative grammar. The brain can interpret two or three embedded phrases, yet the procedure is theoretically endless. We can visualize three-dimensional space, but not a space of four or five dimensions. There is a limit to the number of tasks a person can carry out simultaneously. Many people can multiply 2-digit numbers mentally, but not 3 or 6. Even prodigies have limitations. The regress of consciousness is just an example of extending an experiential pattern (consciousness of awareness) beyond the limits of mind (consciousness of the self, consciousness of that consciousness, and so on). Experience is the final arbiter.

Moreover, for a self to be an object of consciousness supposes a “higher” or supernumerary consciousness peering at the explicit self. The self that initiates an act of consciousness is *antecedent* to its object, its objective pole. For the self to become an object of consciousness is to reverse the anisotropy of the “depth to surface” actualization. In other words, to be conscious of one’s self requires that the subjective pole of consciousness – the implicit and/or explicit self as the origin of the state - become its objective pole, which is the object as a terminus. The core cannot generate a conscious state in which it is, itself, an object of consciousness, for that would obligate a consciousness, not of the derivation

of the self, but of its antecedents. In brief, the self can not be the forward boundary of a mental state in which it is already the posterior one.

The distinction of “I” and “me” is more on the order of actual and potential than *knower* and *known* (James 1890). The *knowing* self – the liminal “I” at the threshold of consciousness - knows that which develops out of it. The subliminal “me” that remains beneath as the potential for the “I” is implicit, unconscious and inaccessible. It represents, or is part of, the tacit knowledge of the individual, what the person knows or has the capacity (competence) to know, and it gives rise to the conscious self, to thought and action. The known self is not actually known, it is felt, intuited, sought after. It participates covertly in thought, but is not ultimately uncovered.

In spite of the ubiquity of the “I” and its desires (needs, hopes, fears, etc.), when one is asked what exactly is this “I,” the most common reaction is one of puzzlement or a description of what the person or others think the self is like. To say one is sad, conflicted, etc., is to declare a feeling or describe a state of mind at a given moment; it is not a description of the self. The statement, “I am sad,” means I have an experience of sadness, not “I have a sad self.” At most it implies that one (ordinarily transient) property of the self is sadness. The *cogito* has an agent and an action. It describes the agency and the felt connection to the act, but the agent – the “I” - is inferred from the activity of thinking. The point is, the “I” cannot be delved into or adequately defined beyond a description of its states.

If the “I” is obscure, the “me” is impenetrable. We get a sense of the effort to access the unconscious self when a dream, and the self of that dream, fade on awakening. The dream lapses into the shadows leaving a dim intuition of what it may have been like. On waking, the person will often say, “I was terrified (excited, happy, etc.).” He may offer that “such and such was happening to me.” The “me” is not the self of the dream, which is passive. It is not the knowledge base postulated by James; nor is it an active self or agent (see below).

Though we surmise the existence of a core self, all unconscious events are inferred from what becomes conscious. The existence of a core that is wider than the “I” is based on the multiplicity of evanescent selves against a backdrop of a more constant character. We also attribute to the core the tacit or unconscious beliefs and values that deposit the conscious self.

Such observations raise the question of what is the relation of psychic events to the terms used to describe them. Do the terms help create the events, do the events call up the terms, do the terms point to events for which language is inadequate, and/or are they markers for the development of mind that help in the partition of the psyche? Do words such as “I,” “you” and “me” identify, label, reveal or delimit psychological states? (Pachalska & MacQueen 2002). Do they just serve linguistic roles? Is the other that is specified *perceptually* in the word “you” partitioned *inferentially* as a self with thoughts and feelings?

THE SELF IN DREAM

The dream of the Brahma is interrupted every so many years by brief episodes of awakening, after which the Brahma falls asleep again and a new world begins. Does life consist of two dreams, only one of which seems real? If a dream anticipates the waking perception of the other, am I foreshadowed in other people's dreams? William James (1890) wondered if his dreams were getting mixed up with those of others. Freud also mentioned communication in dream. Sleep-talkers converse!

Dreams not only recur, they may have an historical continuity parallel to that of waking life (Pachalska, Kaczmarek & MacQueen 2014). The core self, and its derivation to the self of the dream, might be altered as much by events in the dream as by those of waking experience. However, the passivity of the dream self does not usually allow for the interpretation of an event as an external assault⁴. Dream is not felt to endure the accidents of life that make living so perilous. In waking, what others say or do has an impact. In dream we do not hold others responsible. If we are besieged by others in the dream it is not altogether clear their actions are volitional. Do we infer intent to others in a dream? If we are not ourselves agents, can we dream that others are acting volitionally? If one has no control over the events of a dream, how can others in the dream exhibit such control? Here we are at the boundary of purposiveness and intentionality (see below).

The recurrent imagery of dream and myth and their common themes, symbols and modes of thought, imply the existence of unconscious archetypes (Jung 1928; Levy-Bruhl 1985/1926). Does the core rise out of a common ancestral pool, or is the family resemblance in ancestral pattern driven by innate schema active to a varying degree in each person in forming the originating constructs? The common pattern suggests that the generality of the schemata adapts to the locality of culture and experience in a journey from the universal unconscious of the core to an individual consciousness.

The dream self (Grochmal-Bach & Pachalska 2004) differs from the waking self as an image from a perception. The feeling of passivity to the image shifts to the fully independent object (see also: Revonsuo 2005). As the object individuates, the passive self of dream transforms to the feeling of agency in wakefulness (Edelman 1992). The direction of one path to a "detachment" of objects, and the other to agency on them, reflects the bias to perception or action. In the transition to consciousness, there is also an elaboration of serial time. The dream has no past or future. The self may resemble that of an earlier time, or a fantasy out of time (Fig. 5).

It is closer to the imagery of waking consciousness than the unconscious, but it is not the "me" inferred to underlie the conscious self. Unlike the self of the dream, the "me" of the core is unknowable. The dream self is closer to a con-

⁴ The transportation of a fragment of the dream self into waking consciousness may account for the passivity to images and objects that underlies the sense of victimization in paranoia (Brown 2015)

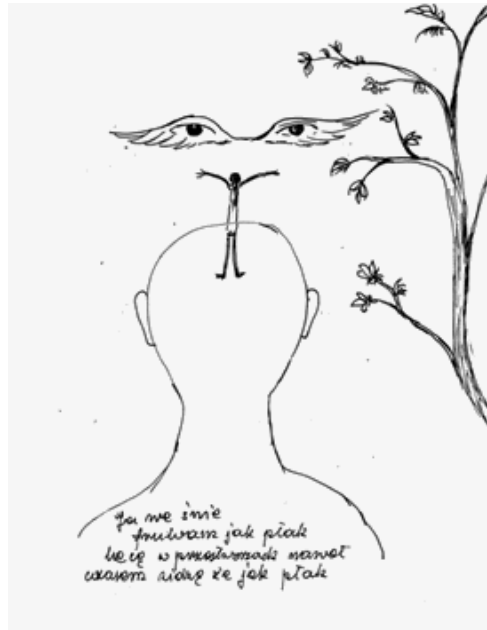


Fig. 5. Picture entitled “My self is flying in the dream” drawn by a traumatic brain injury (TBI) painter with depression
Source: Maria Pachalska’s private library

scious self, but one that lacks external objects to ground the flow of images (Mc-Taggart (1934/1968).

Without external objects, the self has a before and after, but no past or future, no time order, no agency. The before is truly past and no longer exists, while the past of memorial experience *is* the content of the present in the dream. Hallucinations tend to be more vivid than waking objects. Similarly, the present of dream-imagination, in consequence of the lack of “real” objects, looms larger than the present of ordinary wakefulness. The dream-present is a knife-edge of change, lacking the duration that arches over successive events in waking consciousness. The conscious present has a revived past, or one in decay, to anchor the disparity between “memory” and “perception” that is essential to the virtual duration of the now. The theoretical significance of the dream is in showing how the simultaneity of the unconscious, and the before and after of the dream, lead to the procession of the world. Dream is an intermediate phase that, without a perceptual surface, is a before and after or earlier and later, with a present that is the duration of the absolute mind/brain state filled by, but not in relation to, a personal past.

More than in waking life, the dream self swims in a soup of its own creation. We assume the content of dream reflects the thoughts and feelings of the dreamer, even if we do not attribute the character of the dream self to the core. The dream content is interpreted as a distorted product of the psyche, with the

self also felt as a product. Like the dream image, it is a content of thought, not an agent or source. Psychoanalysis depends very much on this assumption. Fears, wishes and their symbolic distortions are thought to reveal the hidden nature of the self, as participant or onlooker. The self of the dream is equally conditioned by this symbolic ancestry. In contrast, what one consciously perceives would not appear to tell us much, if anything, of the observer's life. However, if the dream self and its images are preliminary to the conscious self and its objects, some thread of connectivity from imagination to perception should be evident. The objects we choose to look at or avoid are a guide to our interests and values, as is their meaning, which is imported into the object from an earlier phase in its formation (Brown 2005). Creative imagery and aesthetic perception are aligned with and illustrate this continuum.

WHAT IS SELF?

To say, as Sartre did, by *fiat* rather than theory of mind, that a person is the sum of his acts, ignores the zone of privacy that underlies occasions of its satisfaction. Even from the standpoint of moral conduct the account is wanting. Though trivial, it is better and more accurate to ascribe the core to a physiological ground from which the empirical self arises, than to conceive it as a quantity of outcomes.

A person *is* his existence, and existence is more than action. Existence is becoming or change, which in turn actualizes existents. The process within the entity is its becoming. The entity as a category (duration) of change is its being (Brown 2005). The objective or externalized segment of an action – the act itself, or a sequence of muscular excitations - is not the output of a production line. One does not dispense with the preceding stages once the final one is reached. Similarly, an object is not assembled from the featural details perceived in its parts, but realizes those features in perceiving them. An action or perception is an *epoch* with overt and covert phases, the “essence” of which is a formative sequence of rhythmic levels that are constrained by, or discharge into, physical events. The qualitative change in the internal dynamic of the act is no less a part of the act than its perceptible outcome. Similarly, the change in an object, or the internal events leading to the object, are not causal antecedents that vanish when the object appears, but are ingredient in the mental state, of which the object is one outcome.

Perhaps we could say a person is the sum of his *states*, with the major portion inaccessible, even to him. Is this like saying the world is the sum of its states since the world began? Can we think of the world like the mind as an *overlap of epochs* rather than an accumulation of slices? To think otherwise reduces each slice to the minimal duration of, say, a chronon (Whitrow 1972). This ignores the change in duration and the process concealed within the word “state.” The transition from potential to actual that is the mental state is a whole event. The epoch

of the state cannot be dissected into causal parts, since the “parts” only exist in the context of the epoch.

The conscious self is still early in the mental state; motility, speech and objects are later. Yet the state is an indivisible whole, comprised of its totality of phases. The potential of the core, the thoughts, feelings and images of the conscious self, and the final commitment in speech, action and perception, constitute a single traversal. The core is a set of tendencies or dispositions, the action is a concrete particular. Neither identifies or captures the richness of the conscious self. One looks to the *entire mental state*, from conduct inward through the inner life to its antecedents in thought, dream and the unconscious.

SELF AND CATEGORY

The description of states of the conscious self gives a narrative that depicts the character and needs, etc. of an individual over time. The saga of a life is an irresistible tale, especially to the one who lives it. The personal history and the stacking of episodes and their mutations helps to create the category of a continuous self, while the repeatability of the category through overlapping pulses (James 1890; Brown 2005) contributes to the self-identical nature of a given personality across experiential events. In this way, the identity of the categorical self is preserved over successive acts of cognition.

The relation of the “me” to the “I,” the core to the liminal self, can also be compared to that of a concept and an object. A concept gives rise to, and can be inferred from, the properties of an object, as the attributes of the self are inferred from its actions, or the properties of a horse give the defining features in the concept of “horseness.” The term *horse* makes explicit the concept behind it, which becomes still more explicit with a particular horse. A concept is derived from a category, ultimately from the categorical primes that coalesce in the core self. The self-concept, like other concepts, incorporates experiential, perceptual and meaning relations. Concepts are richer than objects, less factual and for the ordinary person less real (Collingwood 1924).

The category of the core delivers the self and conceptual feeling as sub-categories, with all consequent derivations as tributaries within this categorical “structure.” Inner and outer events – thoughts and objects – are all implementations of concepts issuing from the core. Consider a table as an exemplary piece of furniture. A lamp is in the same category (furniture), but a less familiar example. The identity of the self is like that of a prototypical item in a category of possible states. The habitual self recurs within this wider category, within which are the potential *archetypal* (unconscious) selves given the experiential history of the individual. The most representative or *prototypical* (conscious) self is the most common derivative, or exemplar, for that individual. The habitual or dominant self contrasts with its less familiar or atypical manifestations as a table does with a lamp, including selves - aggressive, romantic, foolish, impulsive, spiritual, and so on - that are possible given the person’s capacities and experiences. The

dominant self is replaced by an atypical self at the category boundary in a state of intoxication, hypnosis, religious conversion or pathology. Should this unfamiliar self recur at the expense of the prototypical self, it will gradually become the habitual mode of expression. The new self is then the nucleus of a novel category and can rightly be said to be the self of a new person.

In a similar way, a peripheral member of a category (furniture) such as a lamp can become the center of another category, such as a source of illumination. The new category forming around the boundary item excludes members of the former category for novel objects, such as lightning and the sun. When the self undergoes a radical shift, it similarly incorporates attributes appropriate to the new personality, retaining some vestiges of the prior self in over-learned skills and traits of character.

TIME, SPACE AND THE SELF

Categories are not containers into which like items are placed, but involve *inter alia* complex aspects of space and time. In one sense a category can be said to be timeless, for it remains essentially unchanged with respect to its inclusion criteria, even as novel members are added. A new animal or plant that is discovered, or manufactured, must respect the properties of membership to remain in the category, or it will form another category at the boundary of the old one.

While a category can be conceived as timeless, the concrete existents in the category change and vanish as do all particulars. However, as tokens of those particulars, i.e. as sub-categories, they too can be said to persist as timeless representatives of their types. If the abstract category is timeless, the core and conscious self, as prototypical exemplars of the person, are conditioned on the time and space they generate, and on which they depend. The categorical self of a person might be construed as timeless, ideal or immortal for those individuals whose attributes or accomplishments are remembered. Yet even for those innumerable others who are forgotten, it is the timelessness of the category that inspires the belief that individuals persist after death as souls, or as ideas in God's mind. Since the self undergoes natural and pathological change and final extinction, it would seem that only in the realm of spirit can it be construed as ideal or eternal.

Time and space are specified out of the core: space as objects grow out of concepts, time as duration is incremented by events. Time penetrates space in the virtual duration of events, space penetrates time in the fiction of changeless existents. The unity and tension of the temporal and spatial is the relation of the dynamic to the static. We also see this in the choice of an object or event ontology (Brown 2005), in the contrast of duration and instantaneity, or of change and stability.

Subjective time develops in a transition from the simultaneity of the core to temporal order in the world. Inwardly, time is counted in duration, externally in increments. Temporal order is realized as the unity of the core objectifies into

the multiplicity of the world. The simultaneity of duration is “unpacked” into an event-manifold. A global pre-object distributes a succession of perceptual events. The actualization of entities is the aim of a unidirectional process of self-realization. In mind, self-actualization realizes event-categories at the outer (external) pole of the subjective.

With this temporal realization, space transforms outward over levels on an axis from the body through the immediate surround to an independent world. The intrapsychic space of the vegetative life is preliminary to the extra-personal, yet still intrapsychic and egocentric space of dream, which itself is preliminary to an independent Euclidean space of object-relations. The self cannot survive without object-space and event-time. It rapidly degrades when objects are lost, as in sensory deprivation or snow blindness. The world is the bedrock out of which the fountain of consciousness arises. The corollary of a loss of objects is a failure in self-realization. This is striking in cases with damage of the visual and auditory areas of the brain, when the waking self is like that of dream or psychosis (Brown 1999).

The duration required for events to be perceived as stable objects is also the basis for the perception of events. The persistence of an object over some minimal duration to be perceived for what it is entails a recurrence within successive nows. A tree that exists for a millisecond is not perceived at all. When leaves fall to the ground, i.e. with a change in the object, a longer duration, i.e. a sustained recurrence, creates an event. All objects are events in which change (recurrence) is more or less imperceptible (Brown 2005).

Duration is the “glue” of continuity that carves events out of flux. Time is not a uniform flow, but a replacement of changing objects across intervals, themselves changeless, thus non-existent. The continuity of the self, of inner and outer, and the recognition of sameness or difference, owes to the overlap in a succession of present moments. Specifically, the *overlap* of the present (now) in the replacement of a *categorical self* and its objects is the basis for the near-identity of recurrences. The scenario of incessant change with a relative stability of inner and outer events is comprehensible in terms of categories that are sufficiently flexible to accommodate deviance and sufficiently habitual to cancel brief atypical replications.

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