

Consciousness and subjectivity are unique, enigmatic and deeply paradoxical phenomena: As personal experiences of the world and of oneself "from within", they are better known than anything else by everybody - but still, they cannot be objectified. Everything we feel and think and know, "objective knowledge" included, is ultimately only accessible through consciousness and subjectivity. But how feeling and thinking themselves are constantly influencing the phenomena under question, is far from clear. Emotional aspects in particular, in spite of intuitively playing a key role, are commonly neglected in the current psychological and philosophical literature on consciousness. Quite generally, clear and interdisciplinary useful concepts on affective-cognitive interactions are lacking.

In the following, certain aspects of consciousness and subjectivity shall be explored from the perspective of affect-logic, an integrative model of interactions between feeling and thinking which leads to a partly new understanding of cognitive phenomena that may not be adequately intelligible without also considering their relation with emotions. The first section provides a condensed information on some relevant basic concepts of affect-logic. In the second section, emotional aspects of consciousness and subjectivity are highlighted on this basis. Finally, some general conclusions will be drawn. The reflections that follow are based on ideas that were more extensively developed in "The emotional bases of thinking" (Ciompi 1997a, in German) and in other previous publications (Ciompi 1988a and b). They nevertheless still have a partial and tentative character.

Basic concepts of affect-logic

The interdisciplinary meta-theory of affect-logic has been developed during the last 25 years, on the basis of converging evidence from cognitive and social psychology, psychopathology, Piaget's genetic epistemology, psychoanalysis, neurobiology and evolutionary sciences which speak for constant interactions between thinking and feeling in practically all mental activity. Its point of departure was clinical research in psychiatry and psychotherapy, especially in the developmental dynamics of schizophrenia and other mental illnesses which yielded results of more general signification (Ciompi et al 1969, 1976; Ciompi 1980, 1988c, 1997b; Müller 1981). The overall orientation of affect-logic is phenomenological and system theoretical, including current concepts on self-referential (so called autopoietical) and nonlinear processes in complex dynamic systems. (so-called chaos-theoryl)

Definitions

A generally accepted definition of overlapping terms such as affects, emotions, feelings or moods is still lacking. Definitions of cognition, too, vary considerably from one author and field of investigation to another. These ambiguities constitute a major obstacle not only for interdisciplinary communication, but also for clearly distinguishing between emotion and cognition and, hence, for a systematic study of their interactions.

In affect logic, the term of <u>affect</u> is understood as a supraordinated notion that includes all above mentioned emotion-like phenomena. Affects are defined as <u>specifically directed</u> global energetic states of variable quality, intensity, duration and degree of consciousness. Appearing under various subjective, expressive, neurovegetative-hormonal and cerebral aspects, affects in this sense always "affect" both body and mind, that is they are typically psychosomatic phenomena. The proposed definition implies, furthermore, that affects may be conscious or unconscious, can last from a few seconds up to several hours, days or even weeks (as e.g. in maniform or melancholic-depressive mood disorders), and that it is not possible not to be in a certain affective state, given that even calm relaxation, "neutrality" or apathy are global psychosomatic states with deep effects on thinking and behaving. The energetic dimension of the chosen definition, too, has far-reaching implications that will be addressed below.

Cognition, on the other hand, is understood as the capacity of perceiving and further processing sensory differences. This definition is closely related to information-theory and cybernetics, in particular to the central notion of a "bit" (the smallest perceivable distinction), and also to Spencer -Brown's (1979) mathematical theory of cognition showing that the whole cognitive world can be described as an infinite sequence of distinctions of distinctions of distinctions.

The notion of *logic*, finally, is not only understood, in the frame of the theory of affect-logic, in the narrow sense of formal Aristotelian logic, but also in the general sense of *the actually prevailing mode of thinking*. Logic is therefore defined as "the way how different cognitions are combined for forming more complex cognitive entities". There exist different types of logic in this sense, as e.g. implied in expressions like "the logic of war", and "the logic of peace". Contemporary mathematics, philosophies and theories of science, too, often operate with the notion of different types of logic.

Affects and cognition are clearly distinct in this view, but closely and continually interacting. Both are deeply rooted in evolution, the former in trans-species and transcultural so-called *basic emotions* (mainly interest/curiosity, fear, rage, joy/pleasure, sadness, and some others according to different authors), and the latter in the *capacity of distinguishing* between different sensory stimuli that even primitive neural systems have. The infinite number of emotional nuances, on the other hand, are generally considered as culture-dependent modulations or mixtures of basic emotions. For reasons of economy, the following reflections will mainly be focused on basic emotions.

Operationally integrated feeling-thinking-behaving programs as essential "building blocks" of the psyche

As convincingly showed by Piaget (1977a,b), all human mental concepts have their roots in basic sensori-motor experiences, that is in concrete actions (and relations between actions) which are progressively coordinated, differentiated, automatised and finally "mentalised" across a number of clearly defined steps during childhood and adolescence. In Piaget's

genetic epistemology, as in most other learning theories, the influence of emotions is, however, neglected.

In affect logic, on the contrary, directed energies of affects are considered as the essential motors and organisers of all action and thought. By repeated experiences, affects, cognitions and related behaviours are integrated into functional entities (or "programs") for feeling, thinking and behaving. Eventually, these "programs" are reactivated, differentiated and partly modified in similar situations. Repetition of similar experiences strengthen, contradictions and discontinuities weaken the existing affective-cognitive systems of reference. They have an intentional dimension which is related to the specific directionality of the implied affects (see below). The whole "mental apparatus" (Freud) can be understood as a partly innate, but mostly acquired flexible hierarchy of operationally integrated experience-based feeling-thinking-behaving programs that constitute the essential "building blocks" of the psyche. Both on the individual and on the social level, numerous additional self-referential mechanisms promote the stability (the so-called operational closure or autopoiesis – see Maturana 1982; Luhmann 1984; Ciompi 1986) of the once established general modes of feeling, thinking and behaving. All this has important implications for the postulate of an obligatorily cognitive-affective (and not only cognitive) dimension of both consciousness and subjectivity that will be further explained below.

Omnipresent operator-effects of affects on cognition

Affects are, on the one hand, often activated by specific cognitive perceptions and experiences, but influence, in turn, also deeply what is perceived and experienced. All affects have, in fact, important mobilising, organising and integrating effects on cognition and behaviour that may be called operator-effects¹ and subdivided into general and specific ones.

General operator effects are common to all affects. They include the fact that all affects

- mobilise, activate, accelerate and/or inhibit thinking in affect-specific ways. In other words, affects function as the essential "energisers" or "motors" (and sometimes, like in depressive moods, also as the essential "breaks") of all cognitive activity.
- focus the attention on specific cognitive contents and exclude others, thus establishing an affect-specific hierarchy of thought and behaviour
- store and mobilise cognitive contents in affect-specific ways in memory (this phenomenon is well known under the designation of "state-dependent memory and information processing")
- tend to link and combine cognitive elements with similar emotional "colour" into greater cognitive entities (affect-specific modes of thinking or logics in the defined sense), thus leading to global affect-dependent judgements such as "a friendly country", "a dangerous place", "a nice man".

Affect-specific operator-effects differ from one affect to another. They include the fact that

¹ an "operator" is a variable which influences and modifies an other variable

- interest/curiosity stimulate cognitive arousal and direct the emotional energies toward selected cognitive objects
- fear/anxiety provoke increase of distance, avoidance or flight from selected cognitive objects
- anger//rage establish, defend, reinforce and/or expand boundaries toward certain cognitive objects
- pleasure/joy/love and related "positive feelings" induce closeness and bonding with selected cognitive objects
- mourning/sadness reduces and eliminates bonds with lost cognitive objects

The common evolutionary task of the described operator effects of emotions on thinking and behaviour is the context-specific focusing of emotional energy on survival-relevant cognitions that is the survival-relevant reduction of the infinite complexity of the surrounding world. By selecting affect-specific foci of attention, specific memories, and specific modes of higher-level cognitive and behavioural integration, affects continually influence form and contents, and also speed and energetic profile of thought and action. They therefore have also an important impact both on consciousness and subjectivity.

Different types of affect-logic, and everyday-logic

By systematically linking cognitive elements with similar affective connotations into greater cognitive entities, the operator-effects of emotions on cognition tend to generate affect-dominated types of thinking and logic in the defined broad sense, as for instance a typical "logic of fear", a "logic of anger", a "logic of hate", a "logic of love" or a "logic of sadness". Other examples are the already mentioned "logics of war" or "logics of peace".

The seemingly neutral or low-emotional everyday-logic, too, is of particular interest for the phenomenology of consciousness and subjectivity. Everyday thinking and behaviour include all that was once, when new, bewilderingly exiting, joyful or frightening, but became gradually "banal" or "self-evident" by habituation. At first look, the initially intense feelings attached to innovations seem to have completely disappeared from everyday activities like shopping, car driving, moving in traffic, reading. Their organising operator effects remain, however, present in largely unconscious automatisms such as automatic caution in potentially dangerous, and automatic relaxation in harmless situations. Largely unconscious operator effects of initially intense emotions are also operating in culture-specific valuesystems, prejudices and stereotypes, and even in most semi-automatic scientific and mathematical thinking where they were initially quite obvious, because abstract cognitive contradictions and conflicts, too, are unpleasant and energy consuming, whereas appropriate cognitive solutions are pleasant, because tension-reducing and economic. - In summary, intensely conscious feelings and thoughts are reserved for exceptional situations which need high-energy processing, whereas everyday thought and behaviour function more economically on semi-automatized low-conscious an low-emotion levels.

Nonlinear and fractal affective-cognitive dynamics

The energetic approach of emotions leads also to a deeper understanding of sudden nonlinear jumps (so-called bifurcations) on more complex levels of functioning that can occur in the dominating patterns of feeling and thinking. Functionally integrated feeling-thinking-behaving systems can be understood as self-organising (affect-) energy dissipating structures, or attractor systems, in the modern chaos-theoretical sense (Prigogine et al 1983; Haken, 1990; Ciompi,1997a,b). At a critical point of energetic tension, overcharging inputs of energy into a dynamic system tend to provoke sudden nonlinear shifts in its overall dynamics. In addition, non-linear so-called butterfly effects, where very small causes can have huge consequences, may occur in critically labile systems.

In mental or social systems, too, such sudden bifurcations (e.g. from love-logic to hatelogic, from fear-logic to rage-logic, from a "logic of peace" to a "logic of war") are frequently observed under critical overcharges with emotional tension. In vulnerable individuals, critical increases of emotional tension can even provoke sudden nonlinear shifts from everyday-logic into psychotic modes of feeling, thinking and behaving (see Leff et al. 1985, Kavanagh 1992; Ciompi 1997a,b). In all these situations, emotional tensions function as a critical so-called control parameter, whereas formerly marginal cognitive elements (e.g. strange or delirious ideas) often operate as new order parameters, around which alternative feeling-thinking-behaving patterns are organised. Similar emotional mechanisms play also a role, as explainded below, in reorganizing cognitive structures on progressively higher and more abstract levels of complexity.

The described affective-cognitive dynamics are fundamentally similar on the individual and the collective level, in short-term and long-term processes, and in elementary and highly complex feeling-thinking dynamics. In other words, they are self-similar on all possible levels of complexity, or show a so-called fractal structure, in chaos-theoretical terms.

Biological bases

Practically all main postulates of affect-logic are supported by basic neurobiological findings. Recent neurobiological research shows that emotion-related and cognition-related neuronal circuits are continually interacting in the human brain. Different inborn neuronal systems with functionally integrated cognitive, affective and behavioural components have been identified during the last years, among them a so-called reward-system characterized by pleasant feelings, an anger-aggression system, a fear-anxiety system and a panic system (Panksepp 1982, 1998; Damasio 1994; LeDoux 1996). Their projections toward distant brain areas provide the functional basis for the postulated comprehensive effects of emotions. Body functions and general behaviour are "affected" by close relations between emotional and hormonal tuning. Emotion-regulating limbic and paralimbic structures are also closely related with memory. Other research confirms the phenomenon of statedependent learning and memory in different functional states of the brain. Different global cerebral states that correspond to the mentioned basic emotions have been identified by spectral electroencephalographic methods. Of particular interest is also the discovery of direct inborn connections for emotional emergency reactions to certain sensory stimuli that function without conscious cognitive processing (LeDoux, 1996). By systematically connecting simultaneously experienced cognitions, emotions and sensori-motor reactions by mechanisms of so-called neural plasticity, new experience-based affectivo-cognitivo-behavioural circuits (or feeling-thinking-behaving programs) are, in addition, continually created in human and higher animal brains.

Affect logic and consciousness, subjectivity

The point of departure for the following reflections on the implications of the theory of affect-logic for the problem of consciousness and subjectivity is phenomenological. According to Jaspers (1953), Scharfetter (1976) and others, consciousness has always an object. Consciousness is the "knowledge of something" (knowledge of the world around, of oneself etc.). Moreover, there exist many different forms of consciousness, from comatose, sleepy or dreamy states and hypnosis to current everyday-consciousness and to ecstatic, meditative and other special modes. There are also remarkable phenomenological differences between consciousness of small children and of adults, and between narrow and wide forms of consciousness. In addition, different affective states may correspond, as we shall see below, to quite different forms of consciousness. Simultaneously, affectivity is certainly a central aspect of subjectivity. At least four different approaches to consciousness and subjectivity are possible from these points of departure.

Consciousness, subjectivity and the phenomenon of attention

A first approach is based on the fact that consciousness has always a cognitive content. It leads to the notion of focused attention which, too, is generally neglected in the philosophical and psychological literature on consciousness. From a phenomenological point of view, attention is closely related to consciousness, and may in fact represent an elementary form of it. Simultaneously, the focus of attention constitutes the very phenomenological centre of subjectivity. Attention is however, as we saw, by no means just a cognitive phenomenon, but has also an affective component. This is already evident in the biologically rooted "attention reaction" - the immediate focusing of attention on newly appearing stimuli already present in newborn infants – where basic emotions like interest, fear or surprise are deeply involved. Given the close relationship between attention on the one hand, and both consciousness and subjectivity on the other, these latter phenomena, too, cannot be adequately understood without also considering their emotional dimension, and the operator-effects that emotions constantly exert on cognition.

In addition, this approach establishes *a bridge to the evolutionary origins of consciousness*, given that focusing attention and attention-reactions can already be observed in quite low-ranking animals like reptiles and insects. Elementary forms of consciousness in humans and animals therefore may not be so fundamentally different as often postulated, especially if we take also into account that full self-awareness – certainly one of the most specific aspects of human consciousness, together with higher degrees of cognitive complexity and structured awareness of time – is not at all a permanent, and to some extent not even a very frequent phenomenon: There are numerous everyday-activities without full self-awareness, as for instance "self-forgetting" play, "absent-minded" car driving, concentrated work, even "semi-automatic" talking and thinking. Fully conscious self-awareness occurs only when we focus our attention on ourselves. All other activities are accompanied by a more or less

vague feeling of "me-ness" that may not be fundamentally different from similar feelings in higher animals. Postulating the contrary could just be the consequence of our anthropocentric lack of empathy, or of capacity for decentration, in Piaget's terms (it is striking, in parallel, that during not so remote historical periods, the dominating conviction was that neither foreign "barbars", nor black people, nor women - not to speak of animals, of course – can have "real feelings").

From the affect-energetic point of view, focusing attention corresponds to the concentration of directed emotional energies (like interest/curiosity, fear, rage, joy) on a given cognitive object. The conscious focus of attention functions therefore as a high energetic processor for coping with important information – as we saw, especially with new and potentially dangerous situations, whereas habitual, everyday activities occur mostly in energetically more economical semi-automatic and low-emotional modes. As conscious high-energetic processing facilitates quick and differentiated learning and adaptation to new situations, it doubtlessly presents an important evolutionary advantage, as compared to rigidly inborn reflexes and instincts. From an evolutionary point of view, differentiated high-energy processing could therefore be a central function of consciousness and subjectivity.

Consciousness and the process of recurrent abstraction and differentiation

A second approach, also based on the notion that "consciousness is the knowledge of something", leads to the question of the relations between consciousness and progressive condensation of knowledge through abstraction. The very essence of abstraction can be seen in finding a common denominator in formerly separated or contradictory cognitive contents (or the "extraction of an invariance in a variance", see Ciompi 1988a). By abstractions in this sense, we construct progressively more general, or "condensed" higher order notions out of basic cognitive knowledge (e.g. the notion of "fruit" out of apples, pears and oranges etc., or the notion of "furniture" for tables, chairs and trunks) that was, before, scattered in heterogeneous elements. Inversely, high order notions are differentiated by introducing progressively more variance in an invariance (e.g. by adding new species to the general notion of fruit). Both condensing and differentiating recurring abstractions of abstractions of abstractions generates more comprehensive, more clear and more compact knowledge about the surrounding world and about ourselves. With increasing brain capacity, this process is further developed by the detection of common elements between multimodal (simultaneously visual, acoustic, olfactory, gustatory, tactile...) sensory stimuli. This, too, leads to a higher condensation and abstraction of knowledge. It is reasonable to suppose that recurrent differentiations of this kind contribute to the emergence of a progressively more clear and comprehensive conscience of the world and of our own position in it.

It should be noticed, in addition, that abstraction, understood as the finding of a common element in so-far unrelated or conflicting concepts, too, is not just a cognitive, but also an affective phenomenon. An often overseen affective component of abstraction in this sense is given by the fact that conflicts, contradictions and disorders of all kinds are emotionally unpleasant and energetically uneconomic, because tension-provoking, whereas finding good cognitive solutions - a new invariance in a variance - is tension-reducing and economic, and

therefore pleasant. Pleasure-seeking through reduction of emotional tension thus appears as an important motor of the dynamics of abstraction, especially if we also remember that nonlinear bifurcations toward globally new forms of organisation occur in dynamical systems when energetic tensions reach a critical level. Abstractions, too, correspond to tension reducing nonlinear jumps on higher levels of mental organisation. Similar tension-reducing mechanisms are at work, according to Koestler (1966), in all kinds of scientific or artistic discoveries, and also in humour. According to psychoanalytic concepts, they also play a crucial role in the formation of distinct self-representations and object-representations during child development which appear as a necessary precondition for the emergence of a clear consciousness about oneself and the world (cf. Kernberg 1980; Ciompi 1988a, b).

It should not be neglected, furthermore, that the construction of higher levels of mental organisation through recurring abstractions requires much time, both on the ontogenetic and on the phylogenetic level. Current adult forms of consciousness that presuppose the establishment of conscious distinctions between the experiencing subject and the surrounding world are in fact the end-product of millions of years of human and prehuman evolution. These considerations emphasise once more the evolutionary dimension of consciousness and subjectivity. Fully acknowledging this fact may be crucial for a better comprehension of the phenomena we are exploring.

On the role of language for the emergence of consciousness and subjectivity

A third possible approach to the problem of consciousness and subjectivity leads to the the role played by language or, more generally, by the capacity of symbolisation, the so-called semiotic function. Is language a necessary precondition for consciousness? The symbolisation of knowledge through signs which are completely different from the objects they signify – the very essence of the semiotic function according to de Saussure (1916) appears as a special form of abstraction in the above mentioned sense (in the word "table" for instance, the common invariance of an indefinite number of concrete tables is extracted or "abstracted", and linked with arbitrary sounds). At first hand, it may seem evident that language promotes consciousness: We can only grasp and clearly know what we can name, and language certainly contributes to forming the emerging consciousness and selfawareness of the child. But empirical investigations on the development of language seem to show that mental abstraction rather precedes than follows language. At variance with authors like Chomsky and others, Piaget, for instance, postulates that language is a consequence, and not a cause of higher forms of consciousness (cf. Piatelli-Palmarini 1979). Many other types of language than verbal ones (the language of images, the language of the deaf, the language of music, various mathematical languages etc.), too, also apparently are based on previous abstractions.

From the viewpoint of affect-logic, the language of images is of special interest. The synchronicity of an image often represents a compact condensation of complex diachronic processes and relations ("an image says more than a thousand words"). Mental images and pictural metaphors are situated at an intermediate level between concrete and abstract thinking, and also between conscious and unconscious, and emotional and cognitive aspects

of thought. The mediating functions of images are particularly evident in dreams, in prehistoric paintings, in the drawings of children, of the "primitive", and also of mentally disturbed persons. Number of scientific discoveries, too, first appeared under the form of imaged intuitions of abstract constellations, sometimes with interesting relations to gestual and spatial language (cf.Koestler 1966; Ciompi 1988a).

In summary, language is probably not the cause, but rather the consequence of the gradual condensation and clarification of consciousness. There is, however, no doubt that language plays a crucial role in promoting a a quick and differentiated manipulation and transmission of information. It corresponds to the most dense and flexible form of consciousness, it vehicles social tradition, and it greatly determinates the form and content of consciousness and subjectivity.

Different affective states correspond to different forms of consciousness and subjectivity

The fourth and last approach to consciousness and subjectivity is based on the multiple operator-effects that affects exert, as we saw, on attention, memory, thought other cognitive functions. Basic emotions like interest, fear, rage, joy or sadness can generate specific types of logic in a broad sense, and thus exert a deep influence on the content of consciousness and subjectivity. Subjectivity may even be understood as a person-specific affective experience (or an "auto-affection", cf. Henry 1965; Parnas 2001). Form, speed, energetic profile and intensity of mental activity, too, differ widely in different affective states (e.g. acute rage or panic are high-speed/high-energy consuming phenomena, mourning and depression are low-speed/low-energy consuming, everyday-thinking and pleasant relaxation is intermediate). World and self-image appear as bright and pleasant in "positive" affective states like pleasure, joy or love, and dark and unpleasant in "negative" states like anger, hate or sadness. In addition, by "affecting" both body and mind, affects deeply influence the global way of "being in the world". Such differences are particularly striking in contrasting mood disorders like depression and mania (Binswanger 1960; Bollnow 1956/1980). All these observations speak for the thesis that different affective states correspond to quite different forms of consciousness and subjectivity.

This assumption is further supported by the analysis of the role played by affects in the three fundamental aspects of subjectivity – intentionality, self-awareness and intersubjectivity – that are generally distinguished. Affects are closely involved in all of them: The relation of affects to *intentionality* is given by the fact that affects correspond to directed energetic states. Each basic affect is characterised, as already mentioned, by a different tendency for action, that is by a different intentionality: Interest and curiosity imply the tendency of reducing the distance to selected cognitive objects, whereas fear and panic tend to increase the distance from them, Such feelings like anger and rage go with defending and/or attacking selected objects. Joy, pleasure and other so-called positive feelings induce closeness and bonding, whereas sadness and mourning are promoting separation from lost objects.

Self-awareness, too, is closely related to the prevailing affective state: Elated states go, as mentioned, with a positive self-image, depressed states with the contrary. Rage and anger usually reinforce, fear and anxiety weaken self-identity.

Similarly important relations exist between affectivity and *intersubjectivity*, that is communication. Certain affective states facilitate and others hinder intersubjective communication. Informations with an affective color that is close to the prevailing affective state of the subject are preferentially focused and integrated (literally: "in-formed"), whereas non-corresponding elements are neglected and repressed. Adequate communication is possible only on the basis of a minimally common "affective wave-length". In summary, affectivity "affects" subjectivity so deeply that the two notions may almost appear as identical, or broadly overlapping.

Tentative conclusions

Both consciousness and subjectivity are highly complex and enigmatic phenomena. Exploring their relations with affectivity can, of course, only yield partial results. At least *five tentative conclusions* seem however possible on the basis of the preceding reflections.

The first and perhaps most important one is the thesis that consciousness and subjectivity are certainly not only cognitive, but always comprehensive *affective-cognitive phenomena*. This implies that both content and form of consciousness and subjectivity are constantly modulated by the described operator-effects of affects on cognition, and can therefore not be adequately understood without integrating their emotional dimension.

Secondly, both consciousness and subjectivity are *gradually emergent phenomena* with a long evolutionary history. The capacity of focusing attention appears both as a core-aspect and as a phenomenological forerunner of consciousness. Even if certain characteristics of the differentiated adult human forms of both consciousness and subjectivity certainly must be considered as unique, elementary forms and pre-stages in higher and even lower animals, in early humans and in young children should not be neglected. Their further study may deepen and change our understanding for central aspects of both human and animal forms of mind.

Thirdly, progressive abstractions and differentiations leading to clearly *distinct self-representations and object-representations appear as essential preconditions for the emergence of adult forms of consciousness and subjectivity.* These representations, too, are not only cognitive, but always also have affective (and behavioural) components. They may, in fact, be understood as high ranking feeling-thinking-behaving programs with particularly widespread functions.

Fourthly, *fully explicite and conscious self-awareness*_is not the most frequent and not the most economic mode of mental functioning, but represents a *rather exceptional form of consciousness and subjectivity* that is reserved for extraordinary situations. Most everyday-activities occur in more economic semi-automatic, low-self-awareness and low-emotional

states which, again, may only gradually differ from similar modes of functioning in early humans and higher animals.

And finally, there are good reasons for postulating that *different affective states*_including different emotional "tunings" of the whole body, *correspond to quite different forms of consciousness and subjectivity*, or more generally, of the global way of "being in the world". Affective state and subjectivity may even be considered as practically identical, or at least broadly overlapping phenomena.

Systematically including instead of neglecting the emotional dimension of consciousness and subjectivity thus leads to a partly new and more dynamical understanding of both, especially if we consider the energetic dimension of affects. Both phenomena appear as ongoing energetic processes that could, to some extent, be compared with an advancing bush-fire with ever changing objects and dynamics, its changing objects corresponding to the variable cognitive contents of consciousness, and its changing dynamics to the variable directions and intensities of the emotional energies that animate this "fire". In addition, the metaphor points to a permanent phenomenological identity behind the variable evolutionary forms of consciousness, namely to its "continual presentification" and its autocatalytic properties.

In summary, the proposed integration of the emotional dimension in our understanding of phenomena like consciousness and subjectivity may not only lead to a more comprehensive, and therefore hopefully more adequate understanding of these central human phenomena. It opens also interesting new bridges to elementary forms of consciousness, and has a number of theoretical, practical and also therapeutical implications that cannot, however, be addressed in the frame of these reflections.

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