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Feeling

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This article attempts to establish on a psychological basis some foundational principles of a philosophy of mind grounded in process (microgenetic) and evolutionary theory, with a focus on the micro-temporal or diachronic aspects of mental contents and the derivation and intra-psychic structure of the mind/brain states in which they are ingredients. The subjectivity of the approach is in contrast to the externalist stance of cognitivist theory, a distinction with a venerable history. For example, Bosanquet asked, "is mental growth a process of compounding units . . . or a process of discrimination?" and cited James as preferring to begin with "the more concrete mental aspects . . . (and go) to elements we come to know by way of abstraction." James went on to write that the "process of 'building-up' the mind out of its 'units of composition' has the merit of expository elegance, and gives a neatly subdivided table of contents; but it often purchases these advantages at the cost of reality and truth." James insisted on a focus on entire conscious states rather than "the post-mortem study of their comminuted 'elements' (which is) the study of artificial abstractions, not of natural things."

Keywords: emotion, energy, feeling

. . . the individual can be cheerful and happy only if he has the courage to feel himself

Goethe

For microgenesis, the process leading to a conscious endpoint is, together with the final content, part of an epochal state. the outcome of which — an act, object, word — is not a resultant of the preceding series but incorporates its earlier segments — value, meaning, belief — as part of what it is. An object includes its formative phases. The subjective has inner and outer segments. The world is the surface of the mental state. Final actualities specify pre-object phases which detach and articulate mind-external. One effect of process-thinking is a revival of the underlying continuities in the diverse aspects of cognition fractured

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by analysis. In process thought, wholes are potentials or categories for specification. Parts are not in situ in wholes but are novel derivations that serve as sub-categories for ensuing partitions.

The account of Feeling from this point of view traces conscious experience back to the physical foundations of existence, or from the facts of perception objective data or their appearances — to a deeper reality. We sense Feeling in activity and passivity, or agency and receptiveness, a dynamic that underlies mentality and is accentuated when its direction is impeded, as in tension, hesitation, or anxiety. If we could eliminate acts, objects, or mental contents in a momentary cognition, mental activity would likely be felt as pure feeling without origin or subjective aim. The lack of direction or intentionality would suspend the feeling of before and after and result in a felt stasis of energy. The pure Feeling described in this paper is thematic in the evolution of mind, and foundational to the derivation of instinct, drive, desire, and emotion. An emotion is a complex of feeling and idea — conceptual-feeling — that is a motive and an object for the self. Feeling is a deeper activity, prior to emotion and idea, out of which emotion and other contents of mind develop. The isolation of actualities from antecedent possibility, the force and specificity of conative drive, the sequence that brings entities into existence, are signatures of Feeling as the engine of evolutionary advance.

Energy is the foundation of matter. At the earliest stage of inanimate entities, Feeling, as energy, is non-directional, best described in the language of physics. We can speak of Feeling when the recurrence of asymmetric energy underlies the direction and cyclical nature of the organism. Feeling evolves when the recurrence of energy of an entity becomes uni-directional. Feeling, though non-relational and uniform, distributes into concepts that embody feeling as affect or emotion. Emotions such as drive or will, pain and pleasure, approach and avoidance, are vectors of Feeling that distribute into feeling, or as energy into emotion, as the essential dynamic of existence.

Introduction

Feeling is central to many philosophies, particularly those of Whitehead and Bradley to which I am greatly indebted, works that take differing positions on the nature of Feeling as the ground of existence and the relation to mental contents and those entities into which Feeling distributes. In this paper, Feeling, in capitals, refers to the basic activity that generates matter and life, while feeling, in lower case, refers to that which is proximate to and innervates the emotions. Pain, or its avoidance, and pleasure or its attraction, differ from Feeling, in that they involve, or are a felt dynamic in, the categorical form that embodies them. Feeling begins in the physical datum as energy, and evolves to feeling or emotion as a subjective quality. Many authors ascribe feeling to pain and pleasure with an objective component (e.g., Ward, 1920), and a subjective

aspect in response to sensory presentations. Whitehead¹ conceived feeling as an operation of passing from objectivity to subjectivity. This would agree with the present discussion if by passing from objectivity to subjectivity means the origination of Feeling as energy in material entities and its segregation in the objects (concepts) of subjective states, e.g., organisms, along with the replication of this process in every recurrence.

Bradley (1893) was closer to my account in treating Feeling as a complex unity without relations, an experience of many in one and genetically the first layer of experience (see discussion in Rusu, 2013). Primal Feeling is undivided and directed energy that partitions into feeling in relation to concepts, as drive, desire and emotion (see below). Feeling does not reduce to sensation, though for some authors feeling and sensation are identical. In the context of microgenetic theory, sensation is external to perception.² Those authors who relate feeling to sensation confound sensibility with perception, i.e., the physical with the endogenous, and they confuse perception and experience with emotion. In addition to the reckless employment of association terminology, the error lies in the interpretation of sensation as internal to mind and identified with stimulation, as stimulation is with feeling, and feeling is with pain and pleasure.

My position follows Bradley, in that Feeling is intrinsic, non-relational, uniform and non-decomposable. The account resembles Whitehead's idea that Feeling is a sub-atomic process (vibratory strings?) that, through *concrescence*³ or *microgenesis*, actualizes the varied forms of mentality as intimations of the deeper, less-differentiated life of organism. Feeling is a quality that propels evolutionary process from its origination in inanimate nature and non-cognitive entities to its manifestation in the higher mentality, exhibiting trends in nature that transfer to the human brain as a physical entity. There is no Rubicon, or point of transition, from the inanimate to the living; rather, a continuous elaboration of Feeling into higher grades of organization and complexity.

The metaphysics of Feeling are not explicitly psychological but inevitably course through individual cognition. The contents of mind — taken as real or phenomenal — are manifestations of the Feeling that gives rise to them. These manifestations, such as ideas and emotions, are in constant transformation. Feeling,

¹See Stenner (2008) for discussion of Whitehead and subjectivity. Microgenesis has an affinity with some concepts in process philosophy but the theory developed independently in clinical neuropsychology leading to a novel account of time, change, process and the mind/brain state (Brown, 1986 to 2010).

²The relation of sensation as a physical constraint on perception, to perception as an outcome of endogenous process, applies to both interoceptive and exteroceptive sensibility, e.g., pain and visual perception.

³For Whitehead, concrescence by way of feeling (prehension) resolves the many to the one, while microgenesis postulates a progression from unity to diversity.

though directional, is undifferentiated, comparable to an intrinsic energy that animates the organism. The account of Feeling as distinct from energy begins and ends with an internalist perspective that traces conscious experience back to the foundations of existence, or from the actual facts of perception — objective data or their appearances — to a deeper reality. William James believed that a final understanding of psychology would be metaphysical. I would add that psychology should be the starting point of metaphysics through which, in any event, it surreptitiously passes. Metaphysics encompasses universal, indeed, cosmic wholes, but the micro-temporal history of Feeling, from top to bottom, from an individual consciousness to the immensity of space and the diversity of nature, is an account of the physical dynamic of human mentality. In a word, metaphysics is metapsychology barren of the psychological data by which philosophy should be informed.

In ordinary language, Feeling implies a relation to emotion or an affective tonality that suffuses experience and enlivens objects. An example might be the postulation of an affect-pool or libidinal stream that distributes into specific modes of cognition. Perhaps there is a relation to the Chinese Qi. However, a more accurate depiction is that emotions crystallize a tacit background into particular occasions of experience, some of which accompany consciousness. An emotion is a complex of feeling and idea — conceptual-feeling — that is a motive and an object for the self. Feeling is a deeper activity, prior to emotion and idea, out of which emotion and the contents of mind develop. Conceptual-feelings represent the precipitation of Feeling into affectively-charged ideas. Mental contents and events, when peeled away to expose their originating activity, reveal a convergence of matter and life that is the covert, intrinsic, and impalpable quality of Feeling they embody.

Feeling is uniform but its manifestations in affect, value, and emotion are protean. They assume many masks and inhabit all modes of thought and varieties of experience, differing in shape, intensity, and character. Feeling is non-relational, or rather, pure relationality, and the "stuff" out of which relations develop. Objects precipitate out of the flow of Feeling. In that objects are the outcomes of a subjective aim, they entail directionality. ⁵ All substances are forms of *purposefulness* in the relation of origination to actuality. In the human mind, the transition from core to surface, from the initiation of a mental state to its terminus, or from the

⁴The relation of Feeling to instinctual drive, and drive to desire, is detailed in Brown (2012a), which includes a lengthy discussion of similarities (few) and differences (many) with psychoanalysis. The theory is closest to that branch of psychoanalysis represented by Schilder (1951) and Rapaport (1950).

⁵For Whitehead, the subjective aim is the direction to value. Here, the term is used similar to intentionality in the aboutness of the mental state, its progression to an act, object, or idea. An object is an externalized image with its affective tonality, e.g., value. Value is not attached to objects or projected on them, but is specified with the object in its momentary journey from mind to world. The link is Dewey's argument that facts are irreducible values.

onset of an epoch to its perishing and replenishment, is a relation of the immediate past of an existent streaming to an immediate present. The process leading from initiation to actuality creates a present that, in its forward momentum prepares for an oncoming future. The sense of movement to the future in the constant replacement of mental states is such that the developing replacement gives the occurrent state a feeling of an immediate future. This is why we can never grasp the present, for as it lays down the now of the moment it is felt as the seed of the future in the overlap if its replacement, even if, indeed because, the ensuing state is not yet actual. This together with the forward progression from memory to perception, or from past to present, and the disappearance of the present in the oncoming state, give the feeling of a future constantly revealing itself as idea and presentiment.

The present is delivered out of the personal past on the way to perceptual adaptation. Possibilities envelop and individuate the final datum. Need adapts to necessity as contents are selected. The present, or the outcome of the present state, resolves the contingency of conceptual possibility with the uncertainty of external events in a changing world. The specification of acts elaborates the choice inherent in agency. A conation to the present is the seed of purposefulness, reminiscent of Whitehead's (AI:249) insight on an occasion of experience, that between an effect facing the past and a cause facing the future lies the teleology of the Universe. The present surges into existence as a forward impulse to satisfaction, advancing the inheritance of an onto-phyletic past in a traversal through which objects resolve out of change to create a novel universe.

Evolution and Panpsychism

The teleology of Feeling is a speculation on the final aim of evolution. The idea is that anisotropic Feeling empowers evolutionary advance. The continuity of Feeling and distribution to affects, together with the basis of substance or being in the epochal nature of process (becoming), are sufficient to account for evolutionary gradualism as successive stages of proto-mentality without the postulation of emergence, e.g., of consciousness. The higher levels of realization to which evolutionary process leads are not attractants to their attainment but adaptations of Feeling and its implementations in the striving of antecedents to a further level. The account is consistent, though not dispositive, with regard to intelligent design. The intrinsic activity that underlies a surge to finality, the relation to embryogenesis and growth, the recurrence of successive epochs, intrinsic relations, and the conformance of microgenetic and evolutionary

⁶Michel Weber put this succinctly: actual entities "come into existence and then sediment into being (not vanish into nothingness)."

pattern, mark a wave of inherent purposefulness or proto-intentionality that tends to be obscured in a sea of contingency.

Energic process, displayed in the transition from whole to part, or from generality to definiteness, carves particulars out of categorical wholes. Contingency and chance are the externalist attributes of "adaptive strategies" that cede change to the environment, e.g., elimination of the unfit, while the internalist response is that uni-directionality carries a pending aim to realization. The isolation (sculpting) of an actuality from antecedent possibility, the specificity of conation or drive, the sequence that brings entities into existence, are signatures of Feeling as the engine of evolutionary advance. Energy is the foundation of matter. At the earliest stage, Feeling is non-directional and best described in the physics of elementary particles. In the gradual shift to vegetation, energy assumes directionality in primitive life forms, or perhaps one could say the life-forms channel energy in the direction of becoming and/or growth. Birth, growth, death, and re-birth exhibit direction within recurrence. The asymmetric manifestations of energy combined with successive recurrence underlie the direction and cyclical nature of organism and physical matter. Every entity, object, and mind/brain state is an epoch of becoming into being.

The account of evolution as a population dynamic centered on group-speciation contrasts with the microgenetic interpretation of the specification of final existents — particles, organisms — in relation to which population effects are secondary. Put differently, the societal thrust of evolution is empowered, generically, by subjective aim, potential at onset but developing in conformance with external conditions in the assimilation of drive to adaptation. Pleasure and avoidance of pain are goals for objectification or constraints on deviation in the path to satisfaction. The guiding principle is survival of the fittest, but the first priority is re-instantiation of the organism. Self-preservation is self-replication, which entails the recurrence (? causal persistence) of the organism. The motive force of recurrence is hunger, 7 which is prior to sexual drive. The latter entails engagement with others in the service of the population, replacing the organism with progeny. The perpetuation of species — their persistence and change — is an outcome of the recurrence and perishing of individuals and the renewal of overlapping and continuous epochs — representations — of the world.

From this standpoint, the population dynamic in speciation is a group model of an intrinsic process of self-actualization. To step outside the survival of the individual to the survival of the population preserves the pattern of specification even as it externalizes the intrinsic process of individuation. Microgenesis expands

⁷See Brown (2012a) for discussion. The hunger/thirst drive leads to feeding and avoidance, which promote the survival of the individual, while the sexual drive, which appears later in maturation, accounts for the survival of the population. The recurrence of the individual is prior to the replication of the species. The chicken recurs each moment before an egg for the future is laid.

the renewal and adaptation of individuals to the renewal and adaptation of species. In the species, individuals can be sacrificed as long as the population endures. Sexual drive sustains the group, and thus has a particular prominence. But from the individual perspective, the preservation of the solitary organism is paramount with hunger and feeding primary.

The basic manifestation of Feeling is the existence of an entity. Its most elaborate articulations are the intellect and values of the human organism. The continuum from the smallest particle to the complexity of a material brain begins with intrinsic value in material entities. Rocks and organisms are differing patterns and complexities of atomic units. The intrinsic value of a rock, its existence, is the energic process that generates the entity, and through which it recurs. Intrinsic value in organism is analogous to that in physical entities. A rock that is replicated (replaced) over some duration is a far-distant precursor of human cognition. In the physical world, a rock is an aggregate, a "society"8 or compound of atomic particles. In perception a rock is a whole, with the potential for realness, meaning and value (as worth), e.g., for a wall, weapon. Feeling runs through all things great and small. Some suggestions as to foundational process in nature continuous with consciousness include an uncollapsed wave packet, virtual photons (Romijn, 2002), quantum entanglement (Shields, 2009) and microdurations (see critique in Hunt, 2001). Dombrowski (2001, p. 32) has written of the "microscopic sentiency found in cells, atoms, and particles."

A particle is a basic object that science represents as self-identical over time or context-independent. Yet a proton in a stellar mass is different from one in a hydrogen atom, as a brain cell in a tissue culture differs from one in an active brain (Birch, 1990). An elementary particle can be conceived as a waveform of energy that is epochal or, if quasi-epochal, developing out of a space-time continuum such as Bohm's implicate order. The epoch is the temporal extensibility of the particle, i.e., the minimal duration for the particle to exist. Energy condenses to a particle; duration is an epoch or category in the momentary life of a particle, over which the particle becomes what it is. The process of Feeling that accounts for the existence of an object — particle, brain — is its intrinsic value.

In my view, evolutionary thinking not only opens the door to but obligates some form of panpsychism. ⁹ The distinction of panpsychism and/or panexperientialism from emergentism defends a continuum against assaults that disavow conscious experience in material entities. The skeptic will contest the argument that rocks or particles have experience, psyche, or a primitive mode of conscious-

⁸In Whitehead's terminology: a "corpuscular society" (Cobb, 2008).

⁹There are similarities with the views of William James, who advocated a form of panpsychism in which reality consists in innumerable flows of feeling interacting with each other. Human consciousness is one kind of flow of feeling typified by the high level of conceptual thinking it contains (Sprigge, 2005).

ness. But the postulation of a continuum merely implies precursors of higher cognition. Energy fills this need. The alternative to panpsychism is sudden mutation or a saltatory leap¹⁰ from one mode of perception to another or a spandrel that is epiphenomenal to other adaptations, e.g., language, but even if true, this does not exclude the need to explain how consciousness arises, whether the crucial step involves genes, cells, or connectivity patterns and/or complexity. Does consciousness appear at a given point? Is it an emergent? If so, what is the distinction of an emergent from a resultant, the causes of which are unknown? The fatal presumption takes consciousness as an abstract entity that is the goal of the inquiry rather than describing phenomena that make consciousness possible.

Intrinsic Value and Existence

In sum, bi-valent energy interior to a particle evolves to uni-valent Feeling interior to organism. The step from physical matter to living organism transforms isotropic energy to anisotropic Feeling, with one cycle (packet) of energy constituting an epoch of existence. The intrinsic nature of the process is the seed of higher subjectivity. In basic entities or in brains, Feeling is non-relational, since the relata — the onset, terminus and phases of the energic wave — are not inter-related segments or polarities. We would not say, except in a trivial sense, that in a fountain the initial jet of water or an intermediate segment relates to the spray at the surface, since the former become the latter. The relations of feeling embodied in categories are over phases in the mind/brain state, and their overlapping replacements, while Feeling is the non-relational ground out of which these phases develop. Phases in the mind/brain are non-temporal (simultaneous) until the state actualizes with relations between phases (whole-part transitions) in abeyance until the sequence terminates. The question of external relations is beyond the scope of this paper, which concerns intra-psychic or subjective phenomena.

It is a long way from a particle to a brain, yet the pattern of process is comparable. The brain is a complex physical entity, existing like a particle as a duration of constituent phases. A brain state is a hierarchic series of vibratory patterns that pulse each epoch into existence. The pattern of neuronal activity over phases — rhythmic, oscillatory, cyclical — is analogous to the vibrations of a

¹⁰The theory of punctuated equilibrium may be applicable to this problem. Though popularized by Gould, I recall this idea discussed well before by Richard Goldschmidt, my genetics professor at Berkeley, based on studies in drosophila.

¹¹Size alone is not explanatory, since the brain of a gorilla is larger than that of some bushmen and dwarf brains (Dart, 1956; Lenneberg, 1967), while complexity has to be parsed in terms of a spatiotemporal pattern of activity, not mass and intricacy of connections. Complexity is not an explanation. The Beethoven 5th played backwards is complex noise.

particle (Gunter, 1999). A neuron exists as the momentary envelope of its activity pattern. We have no precise knowledge of psychic experience associated with a neuron, nor for that matter, with the innumerable neurons in any region of the brain, nor the presumably quiescent neurons in a sleeping brain. A complex pattern of activity is essential for cognition, not only a *spatial configuration but a temporal* sequence in large neuronal populations over distributed systems in forebrain evolution.

The argument is that the intrinsic value (existence) of physical entities consists in a waveform of energy over the temporal extension of an entity, i.e., in Whiteheadian terms the minimum duration of process needed for entities to be what they are. In this bare epoch of existence, the waveform of the thing — its vibratory or oscillatory structure — is non-directional or isotropic. Gradually, internal relations expand as the nucleus of a shift from energy to Feeling; process takes on direction and becomes anisotropic. Internal relations in the epoch expand. The duration of process that constitutes existence enlarges as intrinsic value. ¹² Existence becomes *realness* as the ground of later derivations, e.g., drive, instinct, desire. With respect to value, which includes interest, the existence of an entity precedes its realness (not reality), which leads to object-worth (Brown, 2005).

Relations

As noted, the idea of relations implies things or terms that are related, but from an internalist standpoint the relations of things and terms are outcomes of the process through which, as momentary exemplifications, they come into existence. Put differently, process lays down the terms (categories) it is presumed to relate. These pass to ensuing categories but do not constitute terms in relation. There is a temporal dimension in precedence or simultaneity, yet as mentioned, the relationality of endogenous process is non-temporal until it actualizes. While the Feeling that generates the state is non-relational, earlier and later phases in the state, which are articulated by feeling, have a relational quality in respect of their succession, but the phase-transition of the mind/ brain state cannot be punctuated by a temporal locus. One can only say, on completion of the transition, that A precedes B, but A is not in the past of B, since A and B are co-temporal in the epoch. Moreover, a locus between past and future within a state requires that a series of mental states generate a present, or perspective, one that is felt in the present and one that is felt in the past. This past-present is an ascription that assigns a past-point that breaks earlier-later, with events facing the past of the point or its future.

 $^{^{12}}$ For historical precedence for the idea that existence is the initial step in value-creation, see Perry (1926).

An actuality that represents a succession, e.g., a thought, an object, is an epoch or series of epochs. Indeed, all objects are events, or clusters of epochs. The temporal order of ingredient phases becomes real when the epoch actualizes. In this process, the greater part of the mental state is devoted to recurrence, either as the underpinnings of the state or as memory. Except as an eternal object, the past exists only in the present. Each mental state and each state of the world replaces — and thus in some sense, remembers — the preceding one. The transition from before to after in a given mind/brain state is comparable to physical passage in the world, while the present gives a perspective for a conscious time series, i.e., the A and B series of McTaggart (1901). A sequence of perceived states, i.e., the perception of change, is, as Bergson (1923) noted, wrongly inferred as a kind of horizontal line extracted from the replacement, whereas continuity owes to the superimposition of an epoch on its precursor and the transposition of epochs to perceived successions, i.e., to a sequence of final actualities. How the simultaneity of a subjective past, which is embedded in a present, unfolds to the serial order of events — inner and outer — is a complex problem discussed in Brown (2010). The shift from one temporal series (before/after) to another (past/present/future) corresponds with the actualization of the state and the perceptible sequence of completed states. In this shift, the authenticity of internal relations within a state transforms to the illusion of external relations from one state to the next.

Feeling generates an indivisible cycle of becoming into being. Think of the inability to divide upstream and downstream segments of a river to relate one segment to another. A stretch of water may seem to correspond to some arbitrary point, e.g., the river bed, but the stream is a traveling wave in which one segment becomes the next. In a stream, as in microgenesis, or in the actualization of any entity, the earlier becomes the later. One would not say an orbiting electron in a hypothetical atom relates to, or is a relation of, one point to another. The motion of the electron creates the relation, i.e., the trajectory establishes the relation rather than the relation determining the position. An atom cannot be said to exist in the absence of a complete orbit. Similarly, an entity cannot be sliced in time but exists when it becomes what it is over its becoming. Feeling elaborates things to be related without relating them. This raises the question: What are those things and how are they created, and does Feeling change with changing objects and, if not, how do objects change if feeling is unchanging?

To repeat, Feeling — as opposed to feeling — is non-relational, or not relational in the ordinary sense (of external relations), in that it is continuous throughout one cycle of actualization. The relationality is constitutive, not interactive. The cycle forms an epochal or modular whole in which the succession within the state is a continuous becoming, while continuity in the succession of states is by way of the overlap of states. A state, epoch, or actual object does not, at least not in its conscious appearance, cause the next to occur. Instead, the object is relin-

quished in the replacement. The epoch is simultaneous with the phase-transition that configures it, such that it exists before the succession has temporal order or exists in time. Phases in concert with the entity as a whole are condensations of Feeling, while the final epoch — emotive, linguistic, etc. — embodies, or is a category of, internal relations of the entity. Such relations, like sine waves, are purely relational without things to relate to.

For example, the desire for an object can be interpreted as a relation between the self that desires and the desired object, but the object (idea, concept), whether perceived as internal or external, is part of the same mental state as the self and the feeling of desire. As the subjective aim of the state, the object does not stand in relation to earlier phases but incorporates and actualizes the entire sequence. The object consists of all of the phases through which it develops, so that value and meaning are not attached to, or projected on, the object after it is perceived. The growth in value of the object is coincident with its replacement; the object does not remain constant while its value changes, it changes with its value in each perception. This is the import of the epochal nature of the state. Similarly, an utterance or perception may seem to consist of separate components — conceptual, semantic, phonological — and subsume a variety of processes and contents, but the components (categories), which are manifestations of the Feeling that distributes into them, are incorporated in the trajectory.

More precisely, Feeling obtains in the internal relations of objects and organisms as the process through which objects objectify. Value arises in the transformation of existence to realness. With an expansion of subjectivity, realness becomes attention or interest and, finally, is exemplified in drive, desire and object-worth. In the actualization of the mental state, Feeling bifurcates into subject and object, filling and imbuing the observer and, *inter alia*, infusing the object with realness. Interest is value sequestered in an object. It is a thread of mentality that "connects" mind and world, i.e., an objectified portion of subjectivity in a perceptual target. In the partition of inner and outer, and in differing proportions, Feeling is allocated to self and other, with the latter a tributary of the self that does not so much attract emotion as enjoy it.

Emotion

An account of the process generating an object or mental state as directed Feeling must address the categories — internal and external — into which Feeling is directed. How do categories arise, and what is their relation to Feeling? The categories most closely related to Feeling — the drives and their specification to the emotions — is a good place to begin. The energy that evolves to Feeling

¹³Realness is the quality of appearing or feeling real. Images can seem real, e.g., dream, hallucination, though not object-like in their realness.

leads to instinct, drive, and the aggressive and defensive vectors. These qualities of Feeling are sediments of process, not energy in association with idea. They constitute the form taken by the becoming, i.e., the components and behaviors into which Feeling distributes. An emotion collapses Feeling to a specific affect within a category. When an emotion or thought objectifies, the category embodies the Feeling that pulses in the background as its source and incitement.

Whitehead noted an "analogy between the transference of energy from particular occasion to particular occasion in physical nature and the transference of affective tone, with its emotional energy, from one occasion to another in any human personality" (AI: 242). Strictly speaking, the analogy is a likeness due to the progression of physical energy into organic Feeling. Emotion is a later stage in the evolution of energy, or a higher grade in the ramification of Feeling. Any emotion objectifies personal feeling together with a concept, the varieties and complexities of which obscure the authenticity of Feeling as the primary impulse of organism.¹⁴

Feeling considered apart from the objects and emotions that are its derivations is not a content in consciousness but prior to its differentia, enlivening the things and events into which it distributes. The acts that for some define a person, together with the inner life that for others is the greater part of individuality, still do not adequately represent the deeper current from which, like froth on the surface, evanescent behaviors are specified. An act of cognition seems to be experienced directly, but there is an unfelt lag in its conscious realization. Moreover, the feeling in an act or idea may seem outside the contents that are felt, though Feeling, which is not itself felt, is what feels them, as modes of subjectivity to which self-realization refers. Only with the intensity of early cognition is the feeling within an act inseparable from the content, though even then, especially in higher organisms, there is no doubt some unfelt antecedent lag. The "I" that loves or fears, even if overcome on occasion, is generally felt as distinct from loving and fearing; the lag begins before the category of the self — the "I" — develops.

Uniformity of Feeling decants to locality in acts and objects. To feel is to feel a relation between the actualized state and a ground that is itself largely unfelt. Experience is for or within the local content into which Feeling distributes. Even agitation gives actuality to feeling as a rupture of uniformity. Admittedly,

¹⁴The partition of feeling into the variety of emotions and affect-ideas is a complex topic outside the scope of this paper. An attempt to deal with this problem, along with a critique of Freud's account and the James–Lange theory, is in Brown (2012a).

¹⁵The widespread effort to more deeply understand the genuine or authentic self (Brown, 2005), and the variety of methods used, from psychoanalysis to meditation, points to the artifice on which a life is constructed, the intuition that mind has not been fully plumbed in thought or action and that depth is not content but Feeling, namely that human behavior cannot realize the inaccessible truth of an unconscious mentality.

it is unclear what evidence would suffice to turn what is obligated by a theory into a fact that supports a truth. Wordsworth alludes to the precedence of belief over fact:

"And 'tis my faith that every flower Enjoys the air it breathes."

Feeling and Category

The encapsulation of feeling by emotions that express concepts in diverse exemplifications is a transformation of invisible uniformity into palpable actuality. Each mental state is modulated by constraints of the just-prior one, by ingrained patterns of process and connectivity that relate to habit and character, and by adaptation to the world or the adjustment of need to circumstance. In the human mind, hunger, and sexual drive partition to desire and intentional aim. With an expansion of this trajectory, there is an opportunity for segregated accentuations within a fully-realized epoch. Drive, desire, interest, worth, all modes of value, are the dominant affects that specify ensuing phases, e.g., drive to desire, or to individuate a designated focus, e.g., desire to love, fear, hope, etc. The final object also undergoes specification as attention or value shifts from whole to part, for example, attending to a person, a face, eyes, voice, and so on. There are fluid shifts from category to sub-category, e.g., drive to desire, and the reverse, not as a regression but an incomplete revival.

A category is a set of actual or potential objects that are related by shared attributes, but it can be thought of as an envelope that frames an entity, an elementary particle, a mind/brain state or a segment within the state. In this latter sense, in framing the micro-temporal development of an act or entity, the category is the being or "substance" of the entity, while the Feeling within the category, the micro-temporal transition through which the entity develops, is its becoming or process. The relation of mass to energy foreshadows that of substance to process. This relation is replicated in the categorical primitives that enclose a drive, or in the conceptual-feelings that embody affectively charged ideas or objects.

In prior writings, I assumed the process transitioned from one phase to the next, but I would now argue that phases constrain the passage of a single wave, with traversed segments isolated after the transit becomes actual. The transition cannot be construed as a causal output of one phase to the next; instead, the traversal, which is continuous, is submitted to constraints at successive phases. A mental content — inner or outer, category and Feeling — is a phenomenal outcome that, for the moment of its appearance, is an endpoint in the partition. Thus, the response to the question, what is the relation of Feeling to category, is that the category embraces formative phases that constitute the being of an entity, while the process of Feeling embodied by the epoch is its becoming.

In the evolution of mind, becoming undergoes an expansion of the inward subjectivity of organic life. Successive phases in actualization form sub-categories within the whole of mind/brain. The category of drive corresponds to a population of neurons and connections configured by synaptic strengths that sequester Feeling at its inception. Innate patterns of activity draw in or concentrate Feeling rather than Feeling conjuring up behavior. Similarly, in the derivation of drive to desire, the concept (category) accompanies an influx of Feeling, such that one can speak of a strong or weak desire. But a concept is not a container of Feeling. A drive can swell with feeling and discharge, or transition with a quota of Feeling to desire. A portion of residual Feeling remains in drive as the engine of desire; another goes with the conceptual partition to desire. Indeed, without Feeling, desire would be a non-directional idea, like a dictionary entry. In sum, an affect-laden concept actualizes a subjective aim within a mind/brain state. Images and objects are derivations of earlier configurations that receive Feeling from a source-drive, as objects receive implicit beliefs and tacit knowledge from source-categories.

In human mind, the more primitive category of drive and its concentration of Feeling partition to the sub-categories of self, desire, and the objects or images of desire. The quality of Feeling is uniform within the state, though at one moment it is emphatic in unconscious drive, at another, it is pronounced in the conscious self and desire, and then, subdued, is carried through to its objects. These transitions, markers of value in the dynamic of Feeling, dominate a mental state for a moment and pass like eddies in a stream.

The distinguishing features of a concept or category are the lack of precise boundaries and the virtual or categorical nature of content. Every member of a category is still a category of subordinates, which in turn are categories for further partition. A category can be innate such as instinctual drive, or acquired and spontaneous with its own affective charge, such as "things to take to a picnic." A category, which gives specificity to the feeling it incorporates, "splits" into subordinate categories in a forward development, or "descends" to a source that is essentially bottomless. The contents of mind — ideas, emotions — vary with the categories and their feeling-tone. Feeling gives force and valence to ideas, while ideas embody emotions and give variety to the mental life. Weak and strong feeling, such as affection and passion, reflect an influx of Feeling, which must be reconciled with the fact that Feeling assumes specificity by virtue of the accompanying idea, i.e., a difference of degree becomes a difference of kind. If

¹⁶Alternative accounts in which feeling attaches to, or is attracted by, an idea, or that feelings are specified prior to attachment, or that ideas "find" and combine with appropriate feelings, i.e., that Feeling is a composite of feelings, are unsustainable (see Brown, 2012a, for discussion and critique).

On this view, Feeling accompanies the category *ab origine*, distributing into ideas as local affects or emotions and constituting the affective quality of concepts. A core category is partitioned to more refined concepts and affects. A specific affect or emotion along with its concept, e.g., envy, pride, humiliation, etc., may seem a distinct affect-idea, but it is a tributary of Feeling that invests every aspect of the mind/brain state in the fractionation of drive to partial affects and ideas (conceptual-feelings).

An organism is a unity and a multiplicity. For Whitehead, a society of parts is prehended in the concrescence of a novel individuality, a kind of fusion by way of feeling of the many into the one. In the generation of a mind/brain state, myriad units along with their own pattern of Feeling, assimilate to larger organs, like the strings of one violin in an orchestral piece of music. The "gathering-up" of elements into oscillatory patterns in the before/after of the mental state, goes from whole to part, or from unity to diversity. This transition underlies a shift from the purposefulness of drive to the manifold of desire, and its partition to acts, images, and objects. Mind reaches outward to create and fulfill its own diversity as Feeling binds disparate elements. Multiplicity at the outcome of the state unpacks potential at the base.

It is likely that the vibratory foundation of minute elements, e.g., kinetic energy in cellular units, combines and transforms to virtual oscillators. The progression from a foundational or fundamental frequency to a series of harmonics at levels in speech production (Brown, 1986) provides a model for prehension as a reverse of this sequence, i.e., from the smallest units of organism, or neurons in brain, to a rhythmic oscillator parsed to successive frequencies. In a word, it is vibrations all the way down or, as Heraclitus put it, the road up and the road down are the same.

Becoming

A theory of Feeling is a psychology of becoming. The postulation of becoming in opposition to an ontology of being is a distinction that goes back to Heraclitus and Parmenides. The nature of thought, which is that of increasing analysis, favors substance theory in the fractionation of wholes into parts, and the solidification into observables of the invisibility of transition. Substance is palpable, while the process basis of substance has no boundaries or resting points. A quantitative psychology in which objects are stabilities avoids the change in objects, or how a changing object is recognized as the same. Walking man and sitting man are the same man, as is the man who grows, ages, adds a beard, is healthy, sick, or differs one moment to the next and over the lifespan. An object seems to remain the same in spite of incessant change. This way to think about objects appeals to common sense; if every change no matter how great

or small created a novel object there would be an infinite number of worlds, and selves.

On this view, change is adventitious, with properties by and large inessential to the object. For example, bi-pedalism is part of a common definition of human but not the use or disuse of the limbs, in walking, running, sleeping, or paralysis. Certain properties are critical or paradigmatic to the object, as to its sameness, such as, in man, consciousness, and personality. In substance ontology, change is not ingredient but something an object undergoes, an activity or inactivity that is extraneous. Substance ontology internalizes perceptual objects, carving up and populating the psyche with "logical solids" similar to those in the world. The ontology is reinforced by speculation on the timeless, eternal, or changeless ideas of Platonic thought, or the cognitive stasis of a set of "bloodless categories," or a lifeless past forever fixed in time. Energy is the stuff of particles but Feeling is conceived as supplemental. Ultimately, substance is a composite of a host of elements all the way down to basic entities that are themselves compounds of external relations.

In contrast, the dynamic of process theory, or becoming, which is fleeting and unobservable, must explain why the world seems to contain innumerable substances, how they are stabilized and how they appear independent of the observer, since the cognitive process that underlies substance has no perceptible correlates. Becoming condenses into the affective content of the objects of thought and perception. Yet we feel and observe an arousal of ideas by emotion, or emotion as an incitement to action. This accentuates the energetics of emotion at the expense of conceptual form. All mental contents and objects are categorical frames of Feeling. From an internalist perspective, categories are consolidations of embedded phases. From a physiological standpoint, they are segregated nodes or vibratory levels that enfold primordial Feeling. The Absolute of process ontology is relational and dynamic, like the pratītya-samutpāda of Buddhist metaphysics (Brown, 1999) or contemporary string theory. Object-formation is a becoming into being; there are no solid things. A rock, Whitehead wrote, is a mass of raging particles. Process and substance ontology are complementary. The "rock bottom" foundation of the world is not at all rock-like; it is purely relational.

Objects seem to change before our eyes and effect change on other objects. In process theory, change is in the becoming of actualized categories. Every change is a novel recurrence, and every recurrence is a changed world. This resolves a long-standing problem in causal theory, how a cause is carried into an effect. The disappearance of the cause in the effect represents the perishing of the past as it is overlapped and replaced by another world. The impression that change occurs across states rather than within them is due to the "invisibility" of becoming at the interior of a forming object. The idea of change in external passage conforms to common sense but an account of change in process is deep and counter-intuitive. Thus, a major difference in the ontology

of process and substance theory is the locus of change, either in the becoming of an object or its causal transmission to another object.

Feeling and Emotion

In a complex organism such as a person, energy is active at multiple levels, from body cells and intra-cellular elements, to anisotropic Feeling in brain, beginning with instinctual drives and satisfactions and leading to conceptual-feelings and intentional aims. Moods are manifestations of non-local Feeling. To Some theorists postulate unconscious emotions and/or conflicts between moods, but how can such emotions be identified if they are unconscious other than as states of tension, anxiety, uncertainty, hesitation, or an obstructed inclination in some direction. Unconscious emotion may be like spontaneous or automatic action that must occur before its value can be identified. Courage might be an example of an unconscious impulse or emotion. Affect tends to be diminished in rational concepts. In external objects, it is often imperceptible or seems projected by the observer.

Feeling sequesters at the posterior limit of the mental state. Concentration at the onset enhances Feeling in drive and primal Will, which dissipates in affect-neutral objects. The more intense a desire, the closer it is to drive; the less intense, the closer it is to objects. The transition from a concentration at the unconscious core to affect-neutral diversity at the conscious surface reflects the allocation of Feeling from unity to multiplicity. Feeling is not diminished but is divided and muted by allocation as it is colored by diversity.

Desire is intermediate in the derivation, relinquished at the outer limit of the intentional aim. In the partition to desire, sexual and the hunger-drive moderate when satiety is achieved. Intensity in the pre-object is emptied in its progression from inception to termination, in the succession of phases, in the "derailments" and distillations. Like a torrent that loses force in tributaries, the mental land-scape is enriched in rational thinking as affect is impoverished. Conceptual-feelings or affect-ideas nourished by a common source become the dry shoals of conscious particulars. A wave of Feeling shaped to a configuration by neuronal populations that correspond to instinctual drive is analogous to a mental category. Brain-activity is the dynamic of cell populations; mental-activity is their conceptual frame. A category segments a traveling wave.

Let me close with a word on the deep relation of category and Feeling. In one sense, Feeling as energy or process is aligned with brain activity, while a cate-

¹⁷The idea of emotion as a secondary interpretation of bodily changes, or as originating in brain probably needs re-thinking in light of this discussion. Energy and directional Feeling inhabit the body in liver cells as well as neurons, so that an energic theory of mind/brain is continuous with bodily feeling.

gory is a mental construct, so the relation of the two is equivalent to that of mind to brain. I have argued that process is a traveling wave of whole–part shifts constrained by unconscious patterns of the prior state, of beliefs, values, and habits, with the resultant configuration sculpted by sensation to model the external world. If the process can be depicted as a series of nested whole–part shifts, what is the nature and origin of a category and how might it correspond to whole–part process in brain? If the whole–part transition is central, and if wholes can be said to correspond to categories and parts to members, the whole-to-part transition would map to the elicitation of acts, ideas, emotions and objects. That is brain process and the mental state can be described in terms of whole/part, context/item or fractal-like transformations.¹⁸

A related question concerns the relation of a category to its members, especially with regard to Feeling. A category is an abstract "structure" that encloses a set of shared, tacit, or implicit possibilities. A category member that becomes conscious or explicit aborts the category for the particular, which then becomes a sub-category for a range of potential members. For example, once *dog* is elicited from the category *animals*, the prior category dissolves and the new one (dogs) appears. The antecedent category is replaced by the consequent one (dog), which includes canines. Process is forward-looking. However, any content can be assigned to some background category; one can withdraw to earlier, deeper phases, but in mind-active, items forecast subordinate members, not super-ordinate categories.

Feeling is an ineffable pattern of vibratory activity in the brain that satisfies this description, for it remains indefinite until the category resolves. Once an idea, emotion, or object clarifies, the antecedent category is left behind. The potential for unrealized particulars now belongs to the category of the elicited content. Desire has a multitude of possible objects that narrow down in love, then partition to affection, friendship, compassion, and so on. When the reverse occurs, e.g., going from interest or friendship to love, the replacing state revives the antecedent category to which feeling (interest) is subordinate. All concepts and attendant affects follow this pattern. With the implementation of a drive, potential members of the category are eliminated. Similarly, the category of desire is forfeit when its object resolves, i.e., the potential for an object is abandoned when one impulse clarifies. Conversely, desire that begins with interest transitions to what is prior in the mental state. Since drive and desire are aroused in every mental state, the passage from interest to love replaces the

¹⁸Other studies that refer to ground/figure, surround/center, frame/content and so on, seem to be groping toward the same description, as well as more generalized accounts of individuation, specification or differentiation though none of these accounts has mapped cognition to process in relation to a concept of the mind/brain state.

¹⁹Displacement of drive is well-described in the ethological literature. With blockage in drive-expression, a return to core potential elicits substitute behaviors.

more superficial (object-close) category of interest with the deeper (self-close) category of love.

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