THE MEANING OF MEANING

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ABSTRACT

The world is too complex to manage without radical functional simplification. Meaning appears to exist as the basis for such simplification. The meaning that guides functional simplification may be usefully considered as consisting of three classes. The first class consists of meanings of the determinate world. These are meanings based in motivation, emotion, and personal and social identity. First class meanings are grounded in instinct and tend, at their most abstract, towards the dogmatic or ideological. The second class consists of meanings of the indeterminate world. These are meanings based on the emergence of anomaly, or ignored complexity. Second class meanings are also instinctively grounded, but tend towards the revolutionary. The third class consists of meanings of the conjunction between the determinate and indeterminate worlds. These are meanings that emerge first as a consequence of voluntary engagement in exploratory activity and second as a consequence of identifying with the process of voluntary exploration. Third class meanings find their abstracted representation in ritual and myth, and tend towards the spiritual or religious.

INTRODUCTION

Determinate: *Having defined limits; not uncertain or arbitrary; fixed; established; definite.* ***Webster's English Dictionary****.*

The world is too complex to be represented and acted upon without radical functional simplification (Brooks, 1991a, 1991b; Gigerenzer & Goldstein, 1996; Hacking, 1999; Medin & Aguilar, 1999; Simon, 1956). The manner in which human beings manage this complexity is the subject of much debate. It appears that what we experience as meaning allows for such simplification – and more: appears that meaning ensures that such simplification does not transform itself into inflexible and dangerous stasis. Meaning is a very complex phenomenon, however, even when provisionally defined as an aid to simplification. It therefore appears conceptually useful to consider its manifestation in three broad classes.

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The first class of meanings constitutes the mechanism for the establishment of the most basic, universal forms of functional simplifications, commonly regarded as motivations. This class, *meanings of the determinate world*, includes meanings of emotion, role and social identity, in addition to motivation. The second class of meanings constitutes the mechanism for the exploration and identification of those aspects of the environment that constantly arise to challenge the integrity of current functional simplifications or determinate worlds. This class, *meanings of the indeterminate world*, includes the meanings of anomaly or novelty. The third class of meanings constitutes the mechanism for establishing and representing the integrated interaction of the first two classes. This class may be regarded as *meanings of the conjunction between determinate and indeterminate worlds*. It includes the meanings that arise in the course of exploratory behavior and in the ritualization and subsequent representation of such behavior. Consideration of all three classes provides a portrait of meaning that is simultaneously comprehensive and differentiated.

1. Class 1: Meanings of the determinate world

1.1. Motivation as the first-order solution to the problems of self-maintenance, self-propagation, and complexity: We must survive and propagate, in a world whose complexity exceeds our representational and functional capacity. Motivation serves to initially address these problems. A given determinate world is engendered as a consequence of emergent insufficiency, along a basic motivational dimension. The emergence of a particular motivation induces a state of radical world-simplification. Someone deprived of sexual contact, for example, increasingly treats the environment as a place where intimacy might be sought; where lack of sexual gratification constitutes the undesirable beginning state, and physical satiation the desired end state (Gray, 1982; Panksepp, 1999; Rolls, 1999). The motivational significance of beginning-and-end states appears as something primarily given by biology, or secondarily and rapidly derived from biology through learning. We confront the environment, innately, with loneliness, playfulness, hunger, thirst and sexual yearning (Panksepp, 1999) – even with the desire for a good story. We develop extensive modifications of such concrete beginning and end-states through direct learning and abstraction. We will work spontaneously to increase wealth, to take a general example, after coming to understand the polyvalent nature of money.

Motivation does not drive behavior in a deterministic manner. Nor does it simply set goals. A state of motivation is instead an axiom or a predicate of experience; something that provides a delimited frame for perception, emotion, cognition and action (Barsalou, 1983). Motivation provides the current state of being with boundaries and values (which remain unquestioned as long as current

action produces its desired ends). These bounded states can be usefully regarded as determinate micro-worlds of experience.

Such determinate worlds are manifold in number, as there are qualitatively different states of motivation, such as hunger, thirst or lust (Rolls, 1999), and manifest themselves singly and sequentially, as processes of perception, emotion, cognition and action must be directed towards specified and limited targets (Miller, 1956; Cowan, in press). Each determinate world contains particularized conceptualizations of the current state of affairs and the desired end, which serve as necessary contrast and target points for the extraction of percepts, the specification of objects of abstract thought, the affect-laden evaluation of ongoing world-events, and the selection of motor procedures. Currently functional determinate worlds are productive, predictable and secure, composed as they are of previously encountered, explored and familiar phenomena.

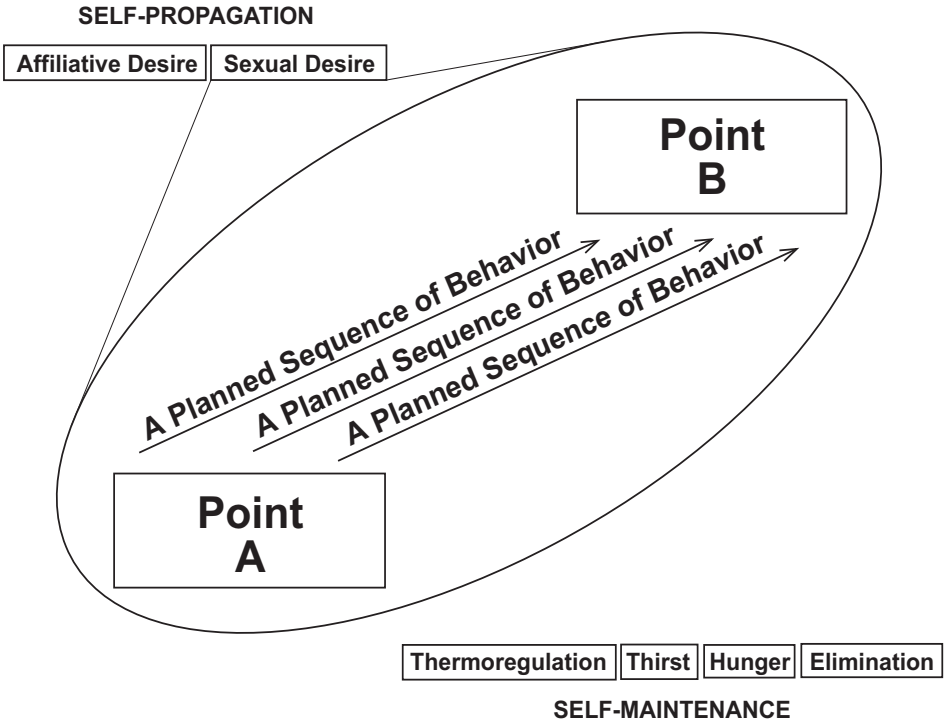

Figure 1: The grounding of a determinate world in motivation.

The blueprint of a simple motivation-dependent determinate world is schematically portrayed in Figure 1. This world consists firstly of

conceptualizations relevant to the movement from point *a*, the undesired beginning-state, to point *b*, the desired end-state, and secondly of specific motor patterns designed to bring about that movement (Carver & Scheier, 1998). Figure 1 also presents the structural elements of the simplest *narrative* or *story* (Peterson, 1999a): I was here, and I went there (by certain means). This simple or normal story (Kuhn, 1970) is akin to the necessary fiction of Vaihinger (1924) and Adler (Ansbacher & Ansbacher, 1956); to the *Dasein* of the phenomenologists (Binswanger, 1963; Boss, 1963); to the expectancy schema of the behaving animal (Gray, 1982); and to the life-space/field of Lewin (1935). Individuals operating within the confines of a given story move from present to future, in a linear track. Two points define such a track – such a *line*. A present position cannot bedefined, without a point of future contrast. Likewise, a potential future cannot be evaluated – judged affectively as better – except in terms of a present position.

The construction of a simplified determinate world also establishes the functional domain for object perception (Gibson, 1977). The perception of objects is, after all, complicated by the problem of level of resolution: the dividing line between a situation, an object, and the subcomponents that make up that object is far from simply given (Barsalou, 1983; Brooks, 1991a, 1991b). Human beings appear to be low-capacity processors, so to speak, with an apprehension capacity of less than 7 objects (Cowan, in press; Miller, 1956). So it seems that our working memory works in concert with our motivational systems: a good goal requires consideration of no more things than we can track. Perhaps it is in this manner that we determine when to deconstruct a task into sub-goals – all goals are motivated; all reasonable goals are cognitively manageable. Figure 1, portraying the frame for emotional response and action, also therefore portrays the most basic schema for object and event-recognition.

1.2. Emotion as a solution to the problem of motivation: Motivations constitute a basic set of solutions to the basic-level problems of human existence. Unfortunately, solutions to problems frequently generate their own problems. The construction of a simplified determinate world helps specify what ends action should pursue, and what phenomena might be considered as objects in that pursuit (Hacking, 1999; Lakoff, 1987; Tranel, Logan, Frank & Damasio, 1997; Wittgenstein, 1968). Action implies trajectory, however, and movement along a trajectory means the action-dependent transformation of experience (as the absolute point of action is to produce desired transformations of experience). Experiential changes produced in consequence of goal-directed maneuvering necessarily have implications for goal attainment – but not only those implications expected or desired. It is the evaluation of implications, including unexpected implications, that constitutes the function of emotion. Emotion might therefore be regarded as a process devoted towards the real-time maintenance of

motivation-simplified worlds; might be regarded as a marker indicating whether the journey to a specified target is proceeding properly or improperly (see Oatley & Johnson-Laird, 1987; Oatley, 1999).

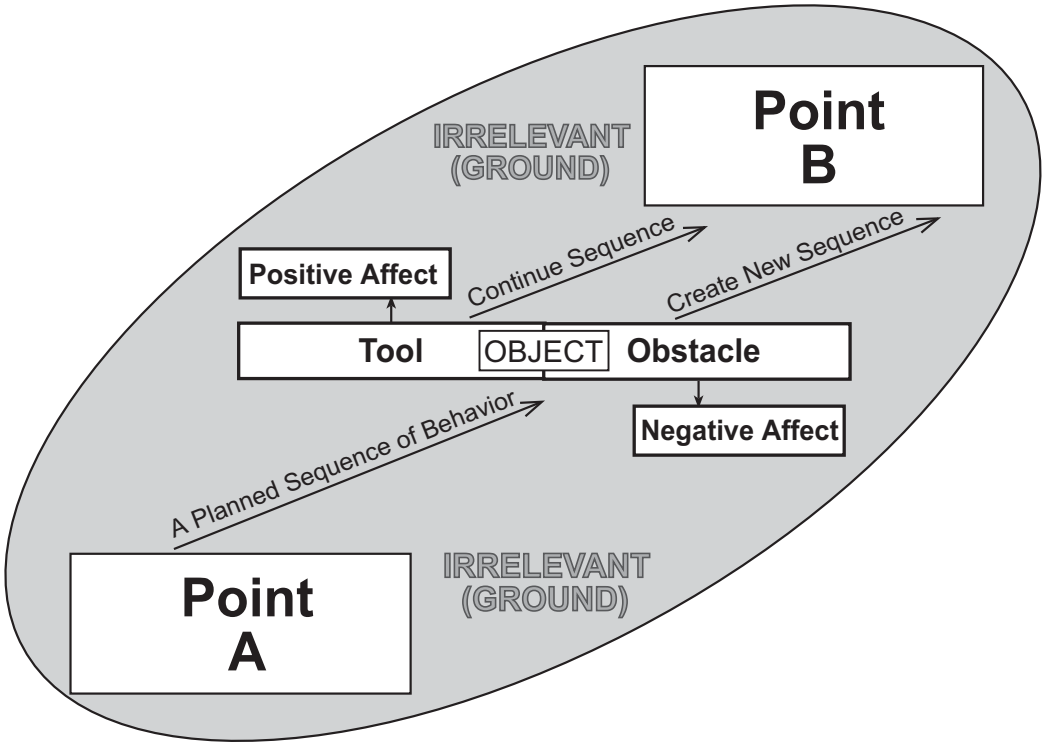

Figure 2: The real-time evaluative role played by emotions

Figure 2 provides a schematic representation of the role played by emotions. Emotional relevance appears as something essentially two-dimensional, in contrast to the multiple domains of motivation. This two-dimensional structure manifests itself because events that occur within determinate worlds have the essential nature of affordances (Gibson, 1977) or obstacles, rather than "objects". Affordances can be utilized to increase the likelihood that a desired end-state might be reached, or to decrease the time-interval until that end-state's manifestation. Obstacles have the reverse nature. Affordances and obstacles can be abstract, as well as concrete. A concrete affordance is a tool. An abstract affordance is a cue that an end-state is likely to manifest itself, in the desired manner – a smile, for example, from an attractive individual – while an abstract obstacle is a cue that something has gone wrong.

Affordances are positively valenced – the first dimension of emotion – as they indicate (1) that progress is occurring, and (2) that the structural integrity of the currently operative motivation-world may be considered intact. The predictable appearance of affordances is therefore experienced as self-verifying (at least with regards to the delimited aspect of the self currently serving as a motivation-world). Obstacles are, by contrast, negatively valenced (the second emotional dimension), as they indicate that progress has been halted or is in danger – and, more importantly, suggest that the current determinate world may not be functional. It is less disruptive to encounter an obstacle that merely requires the switching of means than it is to encounter an obstacle that invalidates a motivation-world, as such. This means that emotional significance may be usefully considered in its within and between-world variant forms (Peterson, 1999a). This is an observation with important implications for the meanings of identity, considered next.

1.3. Identity as a solution to the problems of motivation and emotion: I am capable of second-order representation, so I know that I will desire companionship, and shelter, and sustenance, and exploratory engagement, so I conjure up a determinate world where I can work to obtain tokens that may be exchanged for such things. The pursuit of those tokens then becomes something meaningful. And I conjure up such an abstracted, delimited space to keep my basic motivational states regulated, and act cautiously so that I do not accidentally fall under the domination of negative emotion. And so one might say that a third form of determinate-world meaning can be identified – one that is much closer to abstract conceptualization and to social being than to basic motivation or emotion. I have a stake in the maintenance of my determinate worlds, regardless of their particular content. They take time, energy and courage to construct, and are therefore valuable. They simplify the world, and hold its complexity in check. They suit my needs, and regulate my emotions. I am emotionally attached to them. I identify with them. So personal identity is in its most simple form the acceptance of a given motivation-world as a valid aspect of the self.

More complexly, however, identity constitutes a solution to the problem of organization posed by the diverse motivational aspects of lower-order meaning. First is the issue of sequencing: in what order should particular motivation-worlds be allowed to manifest themselves, in the course of a given day, or week, or year? Second is the closely related issue of hierarchical import: what motivational worlds should be granted priority of value? When I am faced with a conflict between affiliation and productivity, for example, which do I choose? This problem is of course rendered far more complex by the fact of social being: the others who surround me are also rank-ordering their values hierarchically, and implementing their motivational worlds, while constantly exchanging motivational and emotional information with one another. The structure of my

identity is therefore determined not only by my own motivations and emotions (and my decisions with regards to their relative rank) but by the fact that all others are making analogous decisions. That means that personal identity shades into the social; means that personal and social identity is the emergent and even "unconscious" – that is, automatic and unplanned – consequence of the co-operative/competitive establishment, sequencing and rank-ordering of determinate worlds. So the third form of meaning tends towards identity in the personal guise and ideology in the social, as specific modes of being are integrated under the rubric of general ritual and abstract conception, at levels of order that transcend the individual (Peterson, 1999a).

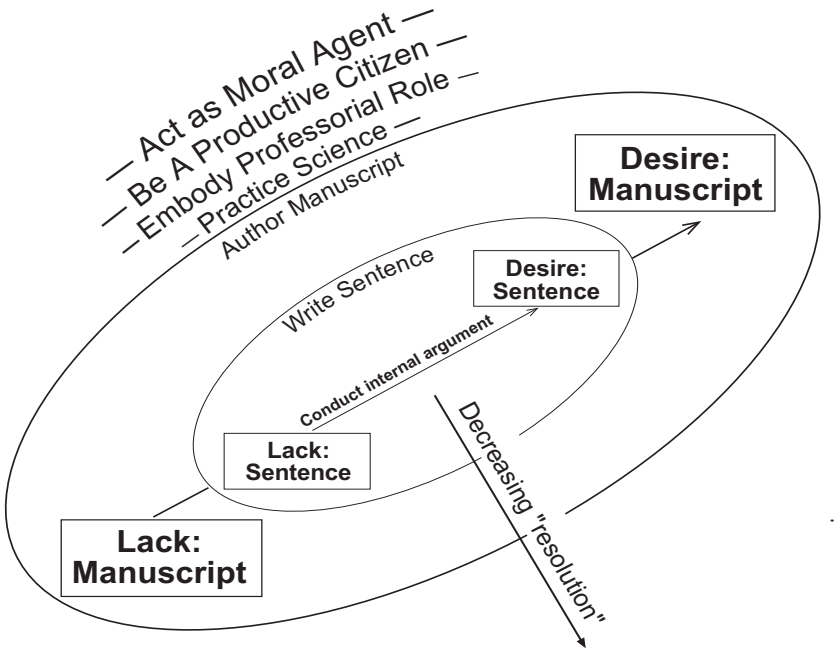

Figure 3: Identity as the sequencing and rank-ordering of determinate worlds.

Figure 3 schematically portrays a representation of identity, which constitutes the organization of motivational and emotional states. At the highest level of resolution, identity consists of the motor patterns that constitute a given behavior

("write sentence," in the current example) and the perceptions, cognitions and emotions that are relevant to that behavior. At lower levels of resolution (or higher levels of abstraction), behaviors are organized into functional and theoretically homogeneous groupings, which may reasonably be considered classes. High-resolution levels of behavioral operation constitute sub-elements of low-resolution conceptualizations (Carver & Scheier, 1998; Powers, 1973) and are governed (that is, sequenced, hierarchically rank-ordered, and evaluated) in consequence of their relevance as affordances, obstacles or irrelevances, construed in relation to those lower-resolution conceptualizations. So I write a sentence, and attend to the specific topic of that sentence while doing so. Then I decide where that sentence should be placed, calculate its comparative importance, and evaluate it for quality – but I do this by switching to the lower-resolution determinate world "author manuscript" and use that world as the frame for my decisions. In turn, I consider "authoring manuscripts" as a sub-element of the determinate world "practice science," and so on, up the hierarchy of abstraction from the purely personal to the shared social (Peterson, 1999a).

2. Class 2: Meanings of the indeterminate world

2.1. Anomaly as a consequence of the insufficiency of determinate motivation-worlds: Personal identities and social roles are also unfortunately characterized by emergent insufficiencies. The most serious of these might be regarded as the problem of the dead past. The environment is entropic, while tradition is static (hence "the state"). The sequenced and hierarchically arranged determinate worlds generated by those who inhabited the past may therefore become inadequate, because of the dynamic transformations that constitute the present. This is the problem of *constraint by the world*: the problem not of matter, but of what matters; the problem not of the object, but of what objects (see Norretranders, 1998). The environment is complex beyond comprehension, yet I must act on it. So I simplify it, in a functional manner –relying on motivation and tradition – but its complexity still emerges, when I least expect it. Such emergent complexity manifests itself, uncontrollably, in numerous ways: as flood or war or illness, as new technology, as new belief or ideology (Peterson, 1999a). This means that world-delimitation may solve a particular problem, but can never provide a solution to the more general "problem of problems" – the ineradicable emergent complexity of the world. This implies, as well, that tradition can never satisfy, in any final sense. Too much human vulnerability necessarily remains present. This is true regardless of the content of tradition (lawyer vs. doctor, say, or Muslim vs. Jew) or its existence as personal role or social identity (Peterson, 1999b).

This all means that meaning is the significance of our determinate worlds, the implication of the events that occur during the enaction of those worlds, and the sequenced and hierarchical structures that we use to organize motivation and emotion psychologically and socially. And this explication is relatively comprehensive, but still fails to deal with a whole complex class of meaningful phenomena. Determinate positive and negative events occur, as the world unfolds in the course of goal-directed activity. Irrelevant things occur, too, of course – but are in some important sense never realized (as you cannot pay attention to all activity, but only to all relevant activity). But what of anomalous events? Some occurrences are neither evidently good nor bad – nor immediately eradicable as meaningless. These are generally occurrences that are *not* understood, *not* explored – that cannot be placed into the context of the current motivational-world. What can be done in such cases? What is not comprehended but is still undeniably extant must logically be experienced as paradoxical (Jung, 1967, 1968; Gray, 1982; Peterson, 1999a): negative, in potential, and positive, in potential, and irrelevant, in potential (and self and world in potential, as well).

And there is something even deeper and more mysterious about the anomalous event. At some point in the process of psychological development, however hypothetically localized that point must be, *all events* are anomalous. And that implies that the construction of forms of reference that allow for the determinate classification and utilization of objects, situations and abstractions is something dependent on the extraction of information from the overarching and ever-emerging domain of the anomalous. And it is for all these reasons that the anomalous must be regarded as meaningful, *a priori* – and for all these reasons that the meaningful anomaly might well be regarded as the ground of determinate being itself.

Figure 4a and 4b schematically portray class 2 meaning, associated with the emergence of world-complexity or anomaly, of the "within" and "between" determinate-world types. Figure 4a portrays the consequences of emergent anomaly, rapidly adjudicated as non-revolutionary. This means the encounter with something unexpected, in the course of goal-directed activity, *within* the context of a given determinate world. An anomalous occurrence is not initially an object (an affordance or obstacle). It is, instead, the re-emergence of ignored ground. As such, it first produces an undifferentiated state of affect, weighted in most cases towards the negative – as caution is an intelligent default response to evidence of error (Dollard & Miller, 1950; Gray, 1982). A within-determinate world anomaly is something that can be merely circumvented, however, without eradicating the protective and simplifying structure of that world. If you are accustomed to walking down a hallway to an elevator, a carelessly placed chair in the middle of that hallway would constitute such an anomaly. You can still get to the elevator, but you have to step around the chair. Such a situation will produce a brief flurry

of indiscriminate affect, immediately quelled by classification ("misplaced chair") and appropriate action. This is process within normal limits.

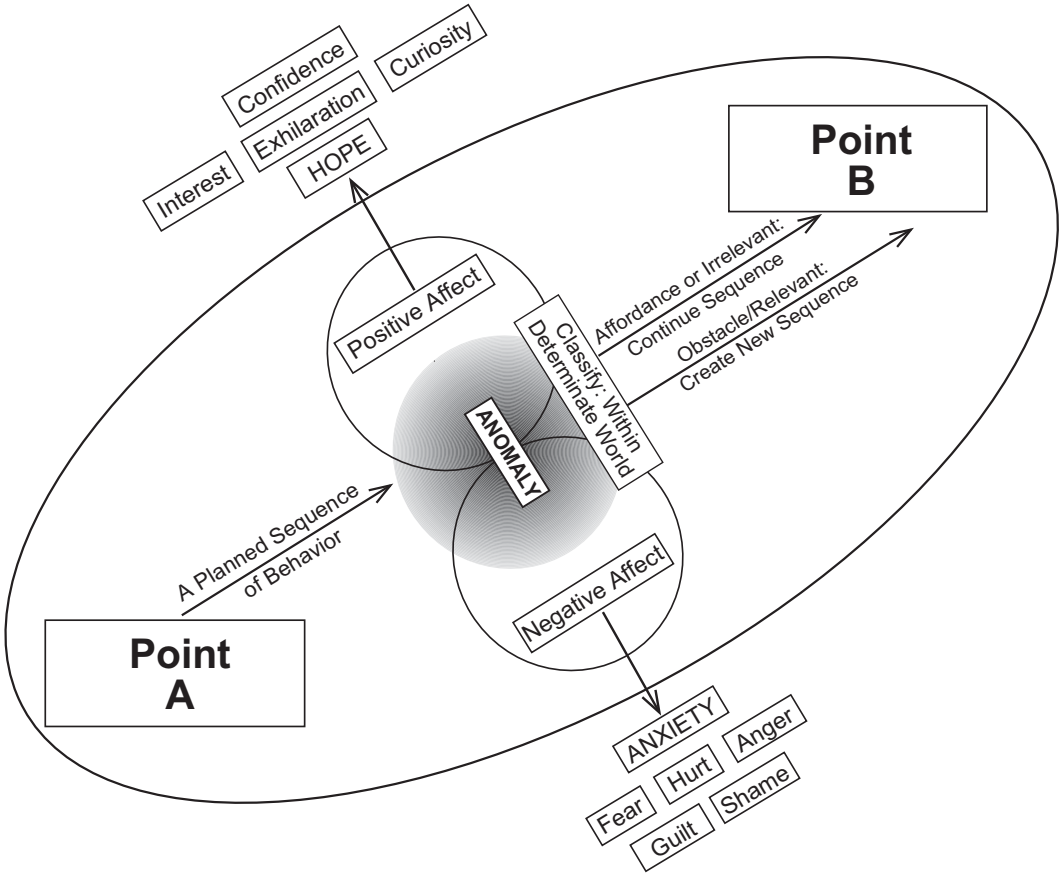

Figure 4a: Emergence of within-determinate-world complexity

Insofar as the goals of current behavior remain unchallenged, the means may switch repetitively without undue alarm. If a dozen plans fail to reach a given goal, however, the functional integrity of the determinate world itself becomes questionable. This questioning process may occur because of the emergence of "anxiety" or "frustration" or "disappointment" or "anger" as a consequence of repeated failure. Under such conditions it becomes reasonable to rethink the whole story, the current determinate world. Perhaps where you are isn't as bad as you think; alternatively, another somewhere else might be better. This process of more dramatic error-driven reconsideration and categorical reconstruction is portrayed in Figure 4b.

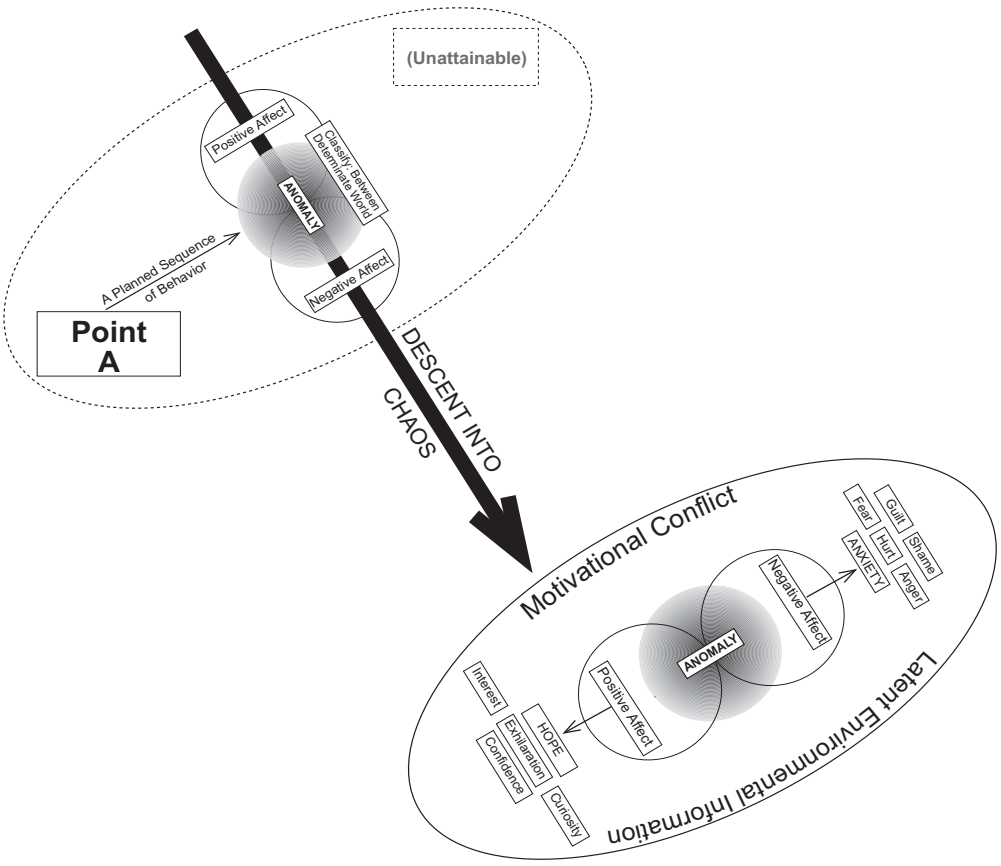

Figure 4b: Emergence of between-determinate-world complexity

Figure 4b portrays the consequences of anomaly resistant to categorization within the confines of the current determinate world. This situation arises when a problem that cannot be easily solved makes itself manifest. You have a career, for example, as a typesetter. But new technology makes your skills obsolete. Experience can no longer be properly constrained by your habitual role. This means that you must construct a new determinate world – even a different hierarchy – to deal with the new situation. Such construction does not occur, however, without energy (Roland, Erikson, Stone-Elander & Widen, 1987), without cost (and the cost is signaled by the emergence of negative affect). Re-construal of the environment is substantively difficult. What should be done, when one's livelihood disappears? What should be felt? What should be perceived? In the interim, before such things are specified, experience consists of

a descent into chaos – the place, the no-man's land – between decisions. This frequently hellish place is ruled by conflicting motivations. Basic regulatory systems strive there to obtain dominance over and bring order to the currently dysregulated world. Emotions compete there to guide behavior (anger, fear, guilt, hurt, even exhilaration, if the disrupted world was ambivalent in value – perhaps you did not like your job, anyway…). More complexly, new information reveals itself there, as a consequence of the eradication of the limits placed on perception by the now-disrupted determinate world. Perhaps you are hurt beyond tolerance by your invalidation. But perhaps you learn a valuable lesson. The information that makes such learning possible is in the same "between-decision" domain as the emotional and motivational chaos attendant upon failure (Jung, 1952, 1967, 1968; Peterson, 1999a).

2.2. Orienting and exploration as a solution to the problem of anomaly: We know that whatever exists is more complicated than whatever is specified by our current determinate world. We know that we must perform radical simplifications of the world, in order to operate in it. This means that whatever exists might be regarded as the sum of all we assume, plus all that is left over. This implies that "all that is left over" may constantly present itself as something with the capacity to "correct" the insufficiencies of our current simplified but situationally +functional stance. Then the question immediately arises: what is the consequence of the emergence of such corrective information? And here might be proposed a radical answer: it is the direct revelation of meaning (Binswanger, 1963; Boss, 1963). And this all implies that the world as it truly exists reveals itself as paradoxical meaning, long before it reveals itself as determinate significance, or as irrelevance, or even as object or fact (because something is novel long before it becomes a recognizable object; because the construction of fact requires the active participation of other people).

It is something fascinating to note that the facts themselves appear in concordance with this pragmatic inversion of materialist reality. Let us take for example the processes underlying a diverse range of animated activities – animal, much as human. It is an accepted axiom of neo-psychoanalytic (Adler, in Ansbacher & Ansbacher, 1956; Jung, 1952), cybernetic (Weiner, 1948), behavioral (Gray, 1982), cognitive (Miller, Galanter & Pribram, 1960), psychobiological (Panksepp, 1999), narrative (Bruner, 1986) and social-psychological (Carver & Scheier, 1998) theories that human behavior is goal-directed, rather than simply driven. Let us start with an attempt to integrate the well-defined animal-experimental/behavioral formulations of Jeffrey Gray (1982), Jaak Panksepp (1999) and Edmund Rolls (1999) and work from there.

These modern behaviorists speak the operational, empirical language of stimulus and reinforcement. When such a researcher refers to broadly *positive* emotional states, for example, he says "consummatory" or "incentive reward." In

general, the experience of such states will produce an increase in the future likelihood of immediately preceding behaviors. Consummatory reward, specifically, means occurrences that will bring the current determinate world to a satisfied end. Incentive reward means occurrences. Incentive reward, specifically, *signals* or cues consummatory reward. When a modern behaviorist refers to *negative* emotional states, by contrast, he says "punishment" or "threat." In general, the experience of such states will produce a *reduction* in the future likelihood of immediately preceding behaviors. Punishment, specifically, means occurrences that will produce angry, depressive, or flight-oriented responses. Threat, specifically, *signals* or cues punishment.

Why is all this relevant? Well, consummatory and incentive rewards have meaning – "repeat preceding behavior" or "continue on the same (potentially) productive path" – experienced as affect. That affect is somnolent pleasure and the momentary lessening of general motivation, in the case of consummatory reward, and hope, curiosity, excitement and interest, in the case of incentive reward. Punishment and threat have opposite meaning: "do not repeat preceding behavior" or "discontinue movement on this counterproductive trajectory," also experienced as affect: hurt (disappointment, frustration, anger, pain), in the case of punishment; anxiety (fear, worry, concern), in the case of threat. And it should be stressed that such meaning is not only relevant for behavior, but for entire determinate worlds. Such worlds are supported ("reinforced") by their success, and eradicated or at least threatened by their failure – even when that success or failure is something only imagined.

But what of anomaly, once again? A meaningful goal-directed schema is established, serving to specify the objects of apprehension and the motor-programs matched to those objects. A goal-relevant world of comprehensible simplicity emerges, accompanied by procedures known to be effective in that world. And virtually everything irrelevant to that domain of concern is ignored (and that is virtually everything). And when the plan is a good plan the desired end is obtained – but nothing novel is learned. And it is because things are learned only when desired ends are *not* obtained that error, signaling anomaly, serves as the mother of all things.

The appearance of the informative anomalous produces its own determinate world, manifested as the orienting complex (Gray, 1982; Halgren, 1992; Halgren, Squires, Wilson, Rohrbaugh, Babb & Crandell, 1980; Ohman, 1979, 1987; Sokolov, 1969; Vinogradova, 1961, 1975). The beginning point of that world constitutes the insufficiency of present knowledge, and the desired end point the functional classification of the presently anomalous emergent phenomenon. Anomaly draws attention inexorably to itself, so that increased intensity of sensory processing and increased exploratory activity may be brought to bear upon it. Such processing and exploration means examination of the anomalous

from the perspective of various alternative determinate worlds (is it relevant to another motivational state?) and from various emotional perspectives (can it serve as an affordance or obstacle? Can it be classified into the same domain as other irrelevant "objects," and regarded as ground?). This process of effortful classification constitutes (1) the elimination of possibility from the infinite, indeterminate domain of the anomalous to the finite domain of a determinate world; (2) the reworking of identity, which is the sum total of all such determinate worlds; and (3) the process by which identity originally comes to be, in the course of spontaneous exploratory activity (Peterson, 1999a). The determinate world that guides anomaly exploration has as its end-point the promise or potential of the unknown, which has more the nature of an incentive (Gray, 1982), than a consummatory reward (as promise is a cue for consummation, rather than its object). So it might be said that the exploratory spirit is something under the control of incentive, serving a consummatory function. This is in keeping with the more abstract "need" of curiosity.

3. Class 3: Meanings of the conjunction between the determinate and indeterminate worlds

3.1. Meta-identity as a solution to the problem of identity: Now, just as the meaning that creates the determinate world guiding exploration is more abstract than the meaning that constitutes primary motivation, so the identity that incorporates the exploratory spirit is more abstract than the primary identity organizing basic-level motivation. Meanings of primary identity are solutions to the problems that emerge as a consequence of operation within the determinate worlds of motivation and emotion. Individual roles and beliefs, merged through ritual or ideological means into social identities, regulate the intrinsic meanings of life, bringing intrapsychic and social order to the conflict-laden chaos of need and want. Members of identifiable groups become predictable to themselves and others by sharing a hierarchy of determinate motivation-worlds. This predictability, this cooperative reduction to ground, is a great cognitive and emotional relief. It remains, however, eminently vulnerable. All roles and ideologies, no matter their level of sophistication, can be undermined by emergent complexity. We therefore gerrymander specific solutions, in the manner of engineers, and strive to maintain our identities – but these are not and can never be complete. This means that a third class of meaning must emerge, to address the meta-problem of emergent complexity. This third class manifests itself directly in two situations, and indirectly as a form of meta-narrative, when its situation-specific processes attain symbolic embodiment and representation.

Class 3 meanings arise first when a determinate world has been rendered invalid, as a consequence of the emergence of some troublesome anomaly. The anomaly manifests itself initially, experientially, in the guise of a war of motivations and emotions – emotions that are primarily negative, for defensive

reasons, in the immediate aftermath of task failure (Dollard & Miller, 1950). But anomaly does not only signify failure. It signifies possibility, equally – information – as the manifestation of the previously unrevealed complexity of the world. This complexity may be transformed, may be utilized as an affordance or as a means of reconstructing failed determinate worlds. The very act of harnessing emergent possibility is meaningful.

Class 3 meanings arise, as well, in the case of full satiation – in the case where all basic-level states of motivation have met their consummatory destiny, and have therefore temporarily ceased to dominate the determinate world of experience. This second situation arises because the meta-problem of the possible problem still lurks ineradicably when full satiation has been reached – and because exploration constitutes the only possible solution to that meta-problem. Immersion in exploration, undertaken for playful, curious and fantasy-driven reasons, also constitutes a higher-order encounter with meaning.

Simple determinate worlds find their communicable expression in the simplest, normal story: I was here, and that was insufficient, so I went there. Description of the vicissitudes encountered in the course of such a journey adds interest to the basic plot (Oatley & Johnson-Laird, 1987; Oatley, 1999). Complex characters, pursuing many simple stories, represent hierarchically structured identities. But the most complex and fascinating story is a meta-narrative – a story that describes the process that transforms stories (Jung, 1952; Neumann, 1954; Peterson, 1999a). And it is identification with this process of story-transformation that constitutes meta-identity, predicated upon recognition that the human spirit constructs, destroys and rejuvenates its worlds, as well as merely inhabiting them. Such identification constitutes the most fully developed revelation of class 3 meaning.

Figure 5 portrays the process of voluntary determinate world eradication and exploration-predicated reconstruction. This transformational process is both perilous and enriching. It is perilous because descent into the motivational and emotional chaos extant between determinate worlds is stressful, in the truest sense of the word. It is enriching because unexplored anomaly contains information whose incorporation may increase the functional utility or the very nature of one or more determinate worlds. This makes involvement in the process of transformation a "meta-solution" (a solution to the problem of problems). It appears, at least in principle, that this meta-solution constitutes a capstone of emergent meaning – a true capstone, beyond which no further emergence of solution is necessary. The complex structure of this solution has to this day remained essentially implicit in mythology, as abstracted and compelling drama, and may be acted out usefully and productively in the absence of explicit understanding. Its implicit existence is the consequence of the imitation and dramatic abstraction of the ideal – that is, the consequence of admiring, and distilling the reasons for admiration, and portraying those reasons in ever-more

potent ritual and literary forms, in a process of highly functional fantasy, spanning generations (Peterson, 1999a).

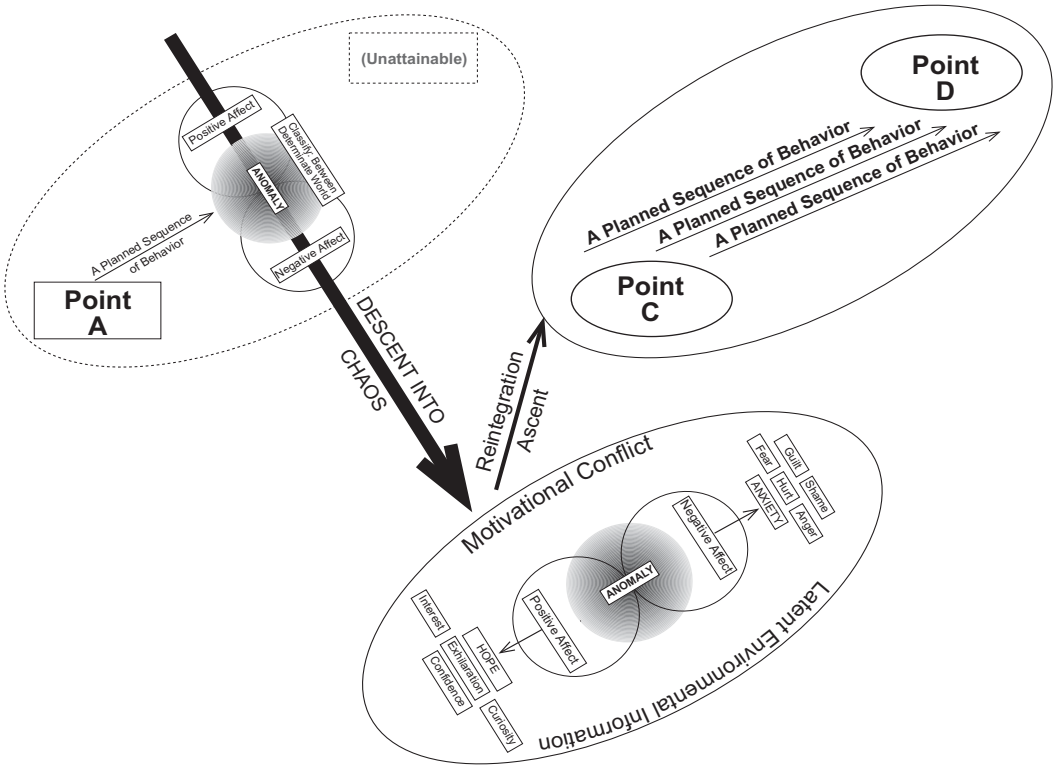

Figure 5: Meta-identity, or the transformation of determinate worlds

Figure 5 has the structure classically identified as central to complex narrative: *steady state, breach, crisis, redress* (Bruner, 1986; Jung, 1952; Eliade, 1965) – or, more metaphorically, *paradise, encounter with chaos, fall and redemption* (Peterson, 1999a). This third complex class of meaning is dramatic in its means of representation, and religious in its phenomenology. Direct religious experience appears equivalent to immersion in the meanings driving exploratory activity – has been described by Rudolf Otto (1958), for example, as a paradoxical combination of *mysterium fascinans* and *mysterium tremendum* (awe and terror in the face of the absolute unknown). Dramatic representation of this transformative process, presented "unconsciously" as an aid to mimicry, takes the form of hero mythology. Such mythology is the abstracted portrayal of courageous approach to anomaly, investigation of its properties, functional categorization and

recategorization as a consequence of that investigation, and subsequent communication of the results to the social world.

Although such dramatic representation is abstract, and is communicated symbolically, it is not entirely explicit, and remains embedded in the patterns of myth and literature. We are motivated, and know we are motivated – so we can represent and understand the state of motivation. Likewise, we are emotional, and can represent the state of emotion. We are novelty-processors, no less universally, but do not completely understand this ability, nor explicitly appreciate its absolutely central place in our adaptive striving. It is a remarkable and telling fact that such appreciation has emerged, nonetheless, in an implicit fashion, and is headed up the hierarchy of abstract representation (Peterson, 1999a). And here we will take a detour into grounds that are richly meaningful in the "third-class" sense, and provide a psychological interpretation for phenomena that have as of yet remained opaque to the searching eye of science.

If a phenomenon is truly universal, it should pick up abstracted representation over time, just as the constituent elements of personality have become encapsulated in the languages of the world (Goldberg, 1992). But the processes that make up class 3 meaning are complex and dynamic – more like "procedures" or "contexts" or "situations" than things – and cannot be easily named. So they have not precisely garnered lexical representation. Instead, they have been represented dramatically, as characters, immersed in plots (Peterson, 1999a). The basic character is the hero, as we have said; the basic plot, confrontation with the unknown, and the subsequent creation or reconstitution of the ever-threatened determinate world of experience. The creator of culture – that is, of the personal and social identity that regulates object perception, abstract thinking, motivation and emotion – is the individual who voluntarily faces the unknown and carves it into useful categories.

The ancient Sumerian arch-deity Marduk, for example, voluntarily faces Tiamat, the abysmal monster of chaos and the mother of all being. This voluntary encounter enables Marduk to create "ingenious things," in consequence (Heidel, 1965; p. 58, 7:112-115), and to serve as the creator of the habitable world of man. Mircea Eliade states, with regards to such stories (and to the terror of the encounter): "it is by the slaying of an ophidian monster – symbol of the virtual, of "chaos," but also of the autochthonous – that a new cosmic or institutional "situation" comes into existence. A characteristic feature, and one common to all these myths, is the fright or a first defeat of the champion…"(1978a, p. 205). The courageous capacity embodied by Marduk was also the process upon which functional reconstruction of traditional categories and habits rested (Peterson, 1999a; 1999b), according to the Sumerians: as *Namtillaku*, Marduk was the god who restored all "ruined gods, as though they were his own creation; The lord who by holy incantation restore[d] the dead gods to life" (Heidel, 1965; p. 53,

6:152-6:153). Whatever Marduk represented also served as the ritual model of emulation for the Sumerian emperor, and as the very basis for his sovereignty. This all means that the Sumerians implicitly recognized, at the dawn of history, that particular beneficial modes of being (determinate worlds) were dependent for their existence on the general pattern of action incarnated by Marduk (Peterson, 1999a).

In the great Egyptian dynasties, similar ideas prevailed. The Egyptian Pharaoh was simultaneously regarded as the force that created truth, justice and order (*ma*^{c}*at*) from chaos, and as the immortal embodiment of Horus, who brought his once-great father, founder of Egyptian tradition, back from the dead (Eliade, 1978a). Similar patterns of narrative ideation necessarily underlie religious traditions of diverse origins and times, as the social regulation of determinate worlds drives individuals to universally embody and then to dramatize adaptive forms: the collapse of Buddha's protected childhood existence, attendant on his discovery of mortality, and his rebirth, illumination, and return to the community; Moses' exodus from tyranny, his descent through the water into the desert, and his subsequent journey to the promised land; Adam and Eve's tempted fall, the profane subsequent existence of mankind, and humanity's eventual redemption by Christ, the second Adam (Jung, 1968; Peterson, 1999a). Figure 5, which describes the archetypal processes of the transformation of category and habit, also schematically portrays the death of the childhood personality, its descent to the underworld, and its reconstruction as an adult, dramatized and facilitated by initiatory ritual (Eliade, 1965; 1985), as well as the hero's voluntary journey into and return from the lair of the treasure-hoarding dragon (Jung, 1952; 1968). Figure 5 also presents a cognitive stage transition (Piaget, 1977), an epiphany, an awakening, and a paradigmatic revolution, in a somewhat broader sense than that originally meant by Kuhn (1970) (Peterson, 1999a).

CONCLUSION

The determinate world of experience, simultaneously internal presupposition and external social construction, constitutes order, security, tyranny, *yang*, set up against chaos, indeterminacy, unpredictability, danger, possibility, *yin*. Order is inherently unstable, as the chaos or complexity encapsulated by previous effort continually conspires to re-emerge. New threats and anomalies continually arise, as the natural world ceaselessly changes. These threats may be ignored, in which case they propagate, accumulate, and threaten the integrity of the current mode of being. Alternatively, the unknown may be forthrightly faced, assimilated and transformed into a beneficial attribute of the renewed world. Upon this grammatical edifice is erected every narrative, every theory of personality

transformation – perhaps every system of truly religious thought, as well (Peterson, 1999a). Error must be recognized, and then eliminated, as a consequence of voluntary exploration, generation of information, and update or reconstruction of skill and representation. Things that are bitter, feared and avoided must be approached and conquered, or life finds itself increasingly restricted, miserable and hateful. Our greatest stories therefore portray the admirable individual, engaged in voluntary, creative, communicative endeavor; portray that individual generating a personality capable of withstanding the fragility of being, from such endeavor. We are thus prepared to find sufficient sustenance in stories portraying the eternal confrontation with the terrible unknown, and its transformation into the tools and skills we need to survive. If we act out such stories, within the confines of our own lives, then the significance of our being may come to overshadow our weakness. It is in the hope that such a statement might be true that we find the most profound of the many meanings of meaning.

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