The Question whether Emotion and Language are Isogenous in Human Evolution: Darwin's "Language" problem—the Transition from an '*Existence Metaphysics'* to a '*Metaphysics* of *Experience'*

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> I conclude that there is no such thing as a language, not if a language is anything like what many philosophers and linguists have supposed. There is therefore no such thing to be learned, mastered, or born with. We must give up the idea of a clearly shared structure which language-users acquire and then apply to cases. And we should try again to say how convention in any important sense is involved in language; or, as I think, we should give up the attempt to illuminate how we communicate by appeal to conventions. (Donald Davidson)

> The advantage of our emotions is that they lead us astray. (Oscar Wilde.)

> Ninety percent of our lives is governed by emotion. Our brains merely register and act upon what is telegraphed to them by our bodily experience. Intellect is to emotion as our clothes are to our bodies: we could not very well have civilized life without clothes, but we would be in a poor way if we had only clothes without bodies. (Alfred North Whitehead.)

Abstract

This paper makes a single claim: that emotion, when structured through projective language, and language, when impassioned and driven by bodily motion, transform static *existence* into *experience*, into the qualitative actions and consummations that give an evolving life "meaning." The shift from an *existence metaphysics* to a *metaphysics of experience* has been the dominant objective in modern American systematic philosophy, a position strongly influenced by Charles Darwin's evolutionary theory. Its purpose has been the transformation of Classical theories of speciation into progressive evolutionary philosophies of development, into theories of the transmutability of species as a function of evolving transactional relationships.

In his 1872 publication, *The Expression of the Emotions in Man and Animals*, Darwin turned to emotion to demonstrate his theory of the continuity of species. Classical psychologies, governed by an existence metaphysics of non-evolving, rigidly fixed species-specific differences, proposed that emotion and reason were antipathetic 'faculties'; that language, a requirement for human rationality, served to distinguish human faculties as well as human and non-human species. Language further served to distinguish higher-level cultures from those deemed barbaric. For a 'social democracy' to evolve, a metaphysics of experience was required in order to drive evolutionary forces in the direction of greater continuity and less violence-driven differences. Emotion and cognition evolved in the drive toward expressible, communal language. The larger effect was the production of the modality of 'experience'.

Impacted by Darwin's interest in biological *continuity*, the task of evolutionary philosophy was to establish the metaphysical basis for the integration of those aspects of human experience that on the surface seemed either unconnected or antipathetic. Darwin noted that the test for such integration would be the discovery of continuity between such seemingly disparate experiential aspects as language and emotion. The philosophic quest for developmental continuity required a rewriting of the metaphysical underpinning of Classical theories of

psychology, biology, science and ethics: gradually formulated were the following critiques of the bases of Classical *existence metaphysics*: The 'critique of *discontinuity*' (a reaction to surface dualisms); the 'critique of *antecedence*' (a reaction to Classical developmental teleology); the 'critique of *priority*' (an avoidance of *a priori* categories in the theory of cognitive and moral development)*;* the 'critique of *abstractionism*' (a rejection of the identification of the 'simple' with the 'concrete'—expressed by Whitehead as "the fallacy of simple location" and "the fallacy of misplaced concretion"). The attempt to 'locate' emotion in the brain (for example in the prefrontal cortex) is a case in point; emotion as *experience,* however, is a manifestation of a growing emergence of complexity: in a deeper sense, it is proposed here that emotion *is* language and language *is* emotion—that these *were* isogenous, and still are. The evolving Arts and Literatures of progressive cultures are evidence to that effect.

In essence, the philosophy of evolution is the search for the metaphysical underpinning of selective process—what Darwin identified as 'Natural Selection'; that underpinning has turned out to be the generative agent of *desire,* the agent which we identify here as *emotion;* the agent which is broadly served by, and which in turn serves the directional propensities of language.

Introduction: Darwin and Philosophy

From the earliest attempts, on the part of Western Philosophy, to account for the place of emotion and language in the intellectual, moral, and religious lives of humans, the tendency, except for a small number of philosophers, has been to ground human experience in some form of *existence metaphysics*—a *reality* theory which has consisted of a *mechanistic* view of *causal laws, social conventions, linguistic* and *logical structures*, making them *strict* and *deterministic.* The opinion that emotion has something to do with erratic behavior or even irrationality, that it represents bodily demands in a mind/body dualism, that it transforms freedom into anarchy, has led to its elimination in any serious concept of human experience and action. Existence metaphysics has further transformed surface differences into hard-and-fast reifications: seeming psychological, biological, and social differences, from early Greek thought through Descartes, were bifurcated into dualisms and crystallized in such concepts as subjective/objective, mind/body, emotive/cognitive, value/fact, indeterminate/determinate et al. For the Classical Greeks, the emotions were forces controlled by lesser gods—wild and crazy ones.

In his seminal article, "Actions, Reasons, and Causes," (1963) Donald Davidson moved the philosophic discussion of the place of emotion in experience and action in a different direction: he argued that humans *can* legitimately be influenced in their actions by "primary reasons" which involved "pro-attitudes" directed at goals; these pro-attitudes, though less strict as 'causes', turned reasons into emotionally charged instruments directed at consummatory actions. Bringing emotion and reason together as instrumental in decision making suggests: a) the emotion/reason nexus would make language an instrumental essential; and b) the evolutionary advance from conditions which fit an *existence metaphysics* to those that make a *metaphysics of experience* possible (to which Davidson made important theoretical contributions) would suggest the strong possibility of an isogenous relationship between emotion and language. Thus, while the term "emotive meaning" might have counted as an absurdity or contradiction or negative instance from the standpoint of existence metaphysics, it has become

an important usage in modern philosophy (a matter explored by Max Black in his *The Labyrinth of Language*).

Moving directly into language, J. L. Austin and J. R. Searle have brought the emotions into the very structure of what Searle refers to as "illocutionary acts": for example, "To request, ask, order, entreat, enjoin, pray, or command (that A be done) counts as *an expression of a wish or desire* (that A be done)." Searle expands his metaphysical account by distinguishing between types of "fact," but stands away from the approach taken by an existence metaphysics that takes as its fact-model the so-called "brute facts" of the physical sciences; this implies that the "basis for all knowledge is generally supposed to be simple empirical observations recording sense experiences." But, Searle opines, there are "large tracts of apparently fact-stating language [which] do not consist of concepts which are part of this picture." (Searle, p. 50.) Examples are "statements in ethics and esthetics" which some philosophers (involved in existence metaphysics) say are "not statements at all but mere expressions of emotions." And while Searle does not fully pursue the matter here, he does find the "brute fact" model wanting, especially when it comes down to accounting for "institutional facts." It would, however, be interesting to determine whether "institutional facts" (those, for example, contextualized in social games) are in any way dependent on an emotion/language nexus.

Though question can been raised as to Darwin's full departure from an existence metaphysics, Evolutionary Theory has contributed to the emergence of a metaphysics of experience in such philosophic movements as Pragmatism, Phenomenology, and Language Analysis. One of the most important questions raised has been the place of language in the evolution of man and animals. If language seems a unique human capacity, its strong alien character has encouraged and supported an *existence metaphysics.* For Kant, emotion was unworthy of serious epistemological consideration, for others it was simply the side of irrational inclination.

The purpose here is to provisionally re-define "emotion" so that it ties into a metaphysics of experience: here, emotion is not a mere appended *subjective existent;* rather, as an *experiential* manifestation, *emotion is a driving, voluntary, qualitatively variegated transactional relationship with a surrounding world, one which is linguistically/rationally projected at that world via the medium of a socio/cultural framework*. It is the strong force in the evolution of mankind.

Some Historical Considerations:

In his "speculative" discussion of "the evolution of consciousness," Daniel C. Dennett cites an observation made by Jacob Bronowski in which a strong human emotion drives human evolution:

> The most powerful drive in the ascent of man is his pleasure in his own skill. He loves to do what he does well and, having done it well, he loves to do it better. (Dennett, p. 209.)

Embedded in this reference to "love" are a number of complexities: If we define "love" as an *emotion which drives human evolution,* it helps to keep in mind the Latin root *exmouvere,* which

simply means "to move" or "move out," a sense also contained in the more complex Greek version, συγκίνησις (*synkinesis),* which denotes a combination of both *involuntary* and *voluntary (motive-driven)* movement. Historically, ambiguities in the term 'emotion' have promoted much theoretical controversy: is emotion merely something which *exists* as an epiphenomenon of a general animal capacity for 'feeling'; is it, as Darwin indicated, an "expression" of (subjective) 'feelings'? Or is it, ontologically speaking, an evolved, complex human capacity *to constitute experience through trans-active motions projected linguistically in different qualitative directions?* That is, if 'feeling' and 'emotion' are identical from the standpoint of an *existence metaphysics*, they are different from the standpoint of a *metaphysics* of *experience.*

The task of metaphysics of experience is to articulate the experiential similarities and differences between the categories of human experience that, on the face of it, might appear as surface dualities, on the one hand, or surface identities on the other. In *existence* metaphysics, 'emotion' *as* 'feeling' becomes sensorially subjective, passive, and non-rational. In a metaphysics of *experience,* emotion comes into its own as a voluntary, publically-manifested passional force of '*cognitively directed' action;* it is a force that is missing especially from involuntary, *'incentive*-driven' feelings. As a "critical naturalist," John Dewey sensed that a proper theoretical integration of *emotion* and *reason* required a critical theory of 'experience.'

Historically, while early Greek speculative philosophy preferred an existence metaphysics in which emotion and reason were considered ontological adversaries (early instances can be found in Homer's work), Aristotle, at least, moved in the direction of a metaphysics of experience by bringing emotion into the domain of Ethics. He was perhaps the first Western philosopher to give emotion its due attention: he examined emotion in terms of reason and explored the question whether reason could govern emotion by weighing it's inclinations in terms of the criterion of the "golden mean." This allowed him to characterize emotion in terms of its *directionality* and *bipolarity,* as well as its openness to measurement. Thus, in his *Nicomachean Ethics,* Aristotle states:

> To be lacking in anger, as if it involved some sort of "unanger," is to merit criticism; they are thought to be fools who fail to become angry at those matters they ought to, or in the way or when or at whom they ought. Such a person will appear to be without feeling or invulnerable, and in not turning to anger he will not protect himself and will slavishly have to suffer insult to himself and those around him.…We describe as "unbearable" those who bear anger in those maters not deserving of anger, and who bear more and longer lasting anger than they should.Cited in Solomon, pp. 10f.)

In a masterful way, Seneca's *De Ira* characterized emotion precisely in terms of a metaphysics of experience by giving it the directional/voluntary force which an *experience-as-action* view would require, and by avoiding the dualism between emotion and cognition which prevailed in existence metaphysics:

> Our question is whether anger starts with a decision or with an impulse, that is whether it is set in motion of its own accord—or in the same way as most inner events which occur with our full knowledge…Involuntary movements can be neither overcome nor avoided.…None of these fortuitous mental impulses

> deserves to be called an "emotion." They are something suffered, so to speak, not something done by the mind.…If anyone thinks that pallor, falling tears, sexual excitement or deep sighing, a sudden glint in the eyes or something similar are an indication of emotion or evidence for a mental state, he is wrong: he fails to see that these are just bodily agitations. (Cited in Solomon, p. 17.)

And while the projective *directionality* of emotion is given extensive attention in the 17th century in Spinoza's *Ethics,* Antonio Damasio's (1999) *The Feeling of What Happens: Body and Emotion in the Making of Consciousness,* like Seneca's *De Ira,* activates emotion by giving it *bipolar* directionality. For a metaphysics of experience to emerge, emotion must move beyond subjectivity; it must manifest itself as a public event. Damasio thus gives emotion a place of singular significance in the evolution of human consciousness:

> I am suggesting that the mechanisms which permit consciousness may have prevailed because it was useful for organisms to know of their emotions. And as consciousness prevailed as a biological trait, it became applicable not just to the emotions but to many stimuli which brought them into action.…Background feelings arise from background emotions, and these emotions, although more internally than externally directed, are observable to others in myriad ways: body postures, the speed and design of our movements, and even the tone of our voices and the prosody in our speech as we communicate thoughts that may have little to do with the background emotion. (Damasio, p. 156.)

In the 20th century, the *existence metaphysics of emotion* turns into a *causal* theory of "emotive meaning" to account for the difference between "referential-cognitive" (informational) meaning and "dispositional" or "feeling-productive" meaning. Max Black takes issue with the I. A. Richards/C. Stevenson *causal* theory of "emotive meaning," arguing that *emotive meaning* enters the corridor of language through its directionality, not because it is *sign-referential* or *propositionally informative;* not because it *causes* certain "corresponding *beliefs" or "feelings."*

The question which Black seems to raise is whether emotion and language *can* combine in such a way as to move from a standard (causal-dualistic) existence metaphysics to a metaphysics of experience: emotion as *speech* and as *action* must unite, ultimately, in the form of a "speech act." In an existence metaphysics, emotion, as subjective, requires the use of *signs* to communicate what is hidden from view; emotion, then, becomes a causal agent which stands behind some sign which *represents* the causal agent. But as Max Black, in his examination of "emotive meaning," points out:

> The outline of a view more satisfactory than the causal theory of emotive import might run somewhat as follows. All feelings and all emotive attitudes have a natural tendency toward outward expression. Such expression, whether it takes the primitive form of gesture or the most sophisticated form of verbal utterance, is not normally produced for the sake of informing a hearer, nor (*pace* Richards) for the sake of arousing similar or complementary feelings in him. A man who frowns with displeasure is not usually engaged in telling somebody anything: the frown is not a *sign of* displeasure, although it can be treated as such by a spectator, the truth being, rather that frowning is a way of *being* displeased… The attitude, we might say, is embodied in the words used, however hard it may be to

> account for this theoretically. The feeling, the emotion, the attitude, is presented tangibly to the hearer or spectator, who is able to "read" it *in* the words. (Black, p. 107.)

Black refers to John Austin's concept of the "speech act" (which J. R. Searle develops in a book by that title), one that sees speech as a "*performative* utterance": the "illocutionary force" of performative language consists of the "conventional consequences of a performative," and its "perlocutionary force" involves "the effects actually induced in a hearer." Whether this better accounts for an experiential connection between emotion and language than the bifurcated causal theory is something Black doesn't pursue.

In the framework of an evolutionary theory, a *metaphysics of experience* can tie language (for example, the formation of *directional prepositions* like the ones Aristotle and John Dewey used) to emotion-driven *motivation* as a force that supports and is supported by structured grammatical development (Levi-Strauss), while, when viewed from an *existence metaphysics,* language which stresses concrete nouns ('primitive' language) would appear to evolve as a more "arbitrary" (lexical) involvement with sign-related gestures (F. de Saussure). Levi-Strauss notes, however, that Saussure "himself concedes that this arbitrariness admits of degrees and that the sign may be relatively motivated." Sign-oriented languages, Levi-Strauss notes, are more *lexicological*; those that are more structured are *grammatical*. However, if it can be demonstrated, as Levi-Strauss has attempted to do, that "the savage mind", with its concentration on icons and images, is no less *experiential/rational* than those cultures immersed in the pursuit of abstract thought, then a case might still be made, from the standpoint of a metaphysics of experience, that emotion and language are isogenous in ongoing human evolution. While "[f]or Saussure," Levi-Strauss points out, "language moves from arbitrariness to motivation…[t]he systems we have been considering. . . go from motivation to arbitrariness: conceptual schemes (at the limit, simple binary oppositions) are constantly broken open to introduce elements taken from elsewhere; and there is no doubt that these additions often entail modification of the system." (Claude Levi-Strauss, pp. 156f.) From this standpoint, for philosophic purposes, the theoretical question whether emotion and rationality are antipathetic in an evolutionary framework might be resolvable, if it can be theorized that emotion/language are motivational roots.

Bronowski's statement, as interpreted here, is given ample support in the work of Levi-Strauss:

> This thirst for objective knowledge is one of the most neglected aspects of the thought of people we call 'primitive'. Even if it is rarely directed towards facts of the same level as those with which modern science is concerned, it implies comparable intellectual application and methods of observation. In both cases the universe is an object of thought at least as much as it is a means of satisfying needs. (*Ibid*., p. 3.)

The experiential directionalities indicated by the terms "object of thought", on the one hand, and "a means of satisfying needs", on the other hand, involve opposite motions: the former is outer- directed; the latter is inner-directed (cf. R.C. Solomon, *The Passions*). Both would more

assuredly serve Natural Selection than the existence of just one, and, hence, the ***bipolarity*** *of most emotions is of enormous significance for the survival of socialized humans: bipolarity supports and is supported by the suspension of impulsivity until the consequences of an act are weighed.* Since the factor of bipolarity is of equal importance for emotion, language and logic, the hypothesis that emotion and language are isogenous in human evolution grows in significance. Furthermore, the fact that emotions are generally bipolar and are therefore more than "arbitrarily" gestural; the fact that they are open to "grammatical" formulation and directed and redirected motivationally, would make it obvious that they should come into being in the form of expressible "speech acts" (cf. J. R. Searle). This means that, as expressible language, they are *as much governed by* ***rules*** *as any other speech acts. Without rules, Aristotle's view of emotion as a driving force for Ethics would not have been possible.*

From the standpoint of evolutionism, the governance of the emotions by rules is a critical factor in the contention that emotion and language are isogenous; this "marriage" rehabilitates emotion by eliminating that desultory Classical ('faculty') view which makes it the *cause* of erratic/pathological behavior, and eliminating the propositional/factual vs. emotive meaning dualism rooted in the theory of causation; the alternative would appear to be a metaphysics of experience in which the emotion-language nexus becomes the constitutive ontological source for rule-directed "qualitative experience" of the sort Bronowski must have had in mind.

The context for Dennett's Bronowski citation is his interpretation of the evolution of the brain: unlike a more limited "hard-wired" agent, the brain has a "plasticity" which allows it to reorganize itself "adaptively in response to the particular novelties encountered in the organism's environment"; Dennett sees this as a "mechanical process strongly analogous to natural selection. This is the first new medium of evolution: postnatal design-fixing in individual brains" (the "Baldwin Effect"). (Dennett, p. 184.) However, having distinguished the "hard-wired" brain from the "plastic" type, Dennett's use of the term "mechanical" to describe this process seems puzzling; it is especially puzzling when applied to Bronowski's statement.

The discussion of emotion in the grand tradition of Epistemology has always been plagued by the dualistic "mind-body problem", a dualism which in time was largely assimilated by Psychology. By adopting the "subjectivity-objectivity" dualism of Epistemology, *faculty psychology* was grounded in an existence metaphysics. From as early as Classical Greek philosophy (notwithstanding Aristotle's qualifying remarks) *emotion* was attached to *feeling*, and *emotional feeling*, distinguished strictly from cognition but together with *consciousness*, became hopelessly *subjective.* At a later time, others *objectivized* emotion by considering it a purely *somatic* affair, one manifested in physiological/behavioral responses.

Whether intended or not, Darwin's move in the direction of the evolution of *language*, and the evolution of the "expression" or "language of the emotions," moved this discussion in a different direction: Darwin's interest was to avoid facultative dualisms by searching for those functional *continuities* which permeated Evolution. Language was a good test case, since, on its face, it seemed most *discontinuous* with all other evolved proto-communication systems. *Emotion* also served, since it seemed to offer the possibility of communication-*continuity* with

other animals. Hence, arguably, it was a stroke of genius for Darwin to bring language and emotion together in an evolutionary theory. These could be symbiotic, or better, isogenous; and as such could serve survival by serving "communal transactions." Brought together, *functional continuity* could replace the *discontinuity theories of language.*

However, though the language/emotion nexus was important for philosophies inspired by Darwinism, the philosophy of "instrumental naturalism" in America, especially in Dewey's work, attempted to eliminate any remaining sign of subjectivism in Darwinism, in part by identifying "emotions' with "quales," and bringing quales and cognition together in the form of "qualitative thought." Solomon points his discussion of Dewey in this direction: "…Dewey argues that emotions are experiences of the world—they are *directed toward things* in the environment that possess such emotional qualities as frightening, cheering, and saddening." (Solomon, 2003, pp. 84f. Italics added.) From the standpoint of this paper, emotion and language are considered isogenous because both emerge in a symbiotic relationship and as *sine qua non* for the emergence of *experience.* If there are "feelings" which are subjective, then they are *not* directive, and hence, they are not emotions. Hence, once more, we can say that *emotion is language*, and *language is emotion.* This is simply to say that these are two sides of purposive communication—communication that has both cognitive structure and qualitative direction at one and the same time. It is this symbiosis which gives language its idiosyncratic complexity, and which, I would argue, gives Donald Davidson reason to note that translation requires a "Principle of Charity."

The issue of the origin of language is still being hotly debated. Using Darwin as a point of departure, the language question might get a new direction through the study of "the language of the emotions." It might turn out that the commonplace tendency to construe emotion as merely physiognomic, to see it as the enemy of rational thought, is to fail to see that emotion and cognition are intertwined; this failure could have a negative impact on our attempt to understand the evolution of human language; however, this would not minimize Darwin's sense that physiological underpinnings are important. It is hypothesized here that the "language of the emotions" is the nucleus from which human grammatical and semantic language evolves. What is required is a phenomenological analysis of the emotion/language nexus (see below).

Darwin introduced his 1872 publication, *The Expression of the Emotions in Man and Animals,* with Herbert Spencer's work ('Essays', 1863, p. 138) in mind. Darwin began as follows: "I will begin by giving the three Principles, which appear to me to account for most of the expressions and gestures *involuntarily* used by man and the lower animals, under the influence of various emotions and sensations." (*The Expressio*n…., p. 31f. Italics added.) He qualifies this statement by indicating that "movements or changes in any part of the body—as the wagging of a dog's tail, the drawing back of a horse's ears, the shrugging of a man's shoulders, or the dilation of the capillary vessels of the skin—may all equally serve for expression." And while he seems to assent to Herbert Spencer's attempt to draw "a clear distinction between emotions and sensations, the latter being 'generated in our corporeal framework'", he goes on to cite Spencer's classification of "Feelings [as] both emotions and

sensations." One might accept the notion that the terminological relationship of "feeling" to "emotion" is as genus to species; however, this simply serves to indicate that the term "feeling", made denotatively too broad, becomes connotatively ambiguous: the underlying problem is that the term "experience," left to itself, is the source of many ambiguities (the pain of a toothache and the emotion of anger, *qua* "feelings," are not comparable).

As an evolutionist, Darwin's project was to discover whether there are *continuities* in an evolving Nature, but also whether *differences* can be accounted for. In order to do this, Darwin found that those expressions are inherited which have "some natural and independent origin" (Darwin, p. 359); that the "close similarity in the various races are due to inheritance from a single parent-form, which had already assumed a human character" (*ibid*., p. 364); that certain expressions (e.g., "blushing") do "not seem possible for…any animal, until its mental powers had been developed to an equal or nearly equal degree with those of man" (*ibid*., p. 367); that "movements of expression…reveal the thoughts and intentions of others more truly than do words, which may be falsified" (*ibid*., p. 368); that acquired expressive movements "may be voluntarily and consciously employed as a means of communication" (*ibid*., p. 359); that most animals have a "limited amount of knowledge" [*sic*] of such expressions, which is learned and "not instinctive" knowledge (*ibid*., p. 361); that "expression in itself", which can be called "the language of the emotions", "is certainly of importance for the welfare of mankind" (*ibid*., p. 370).

The query raised here is twofold: First, whether "feeling" and "emotion" are ontologically/experientially *univocal*. Second, whether the origin of human language creates an ontological *difference* between non-human and human "expression" such that efforts to reduce the "language of the emotions" to a Spencerian naturalistic psychology become suspect. Darwin recognizes the factor of difference as he moves from animals to man, a difference that strongly implicates the presence of language. However, he uses epistemological terminology (e.g., "knowledge") in his reference to animals at the same time that he questions whether animals can "understand" as man does, given a language barrier. There are, hence, philosophic issues in Darwin's presentation to which he does not seem to respond; indeed, at the end of *The Expression of the Emotions in Man and Animals*, he puts off such inquiry as a task for someone other than himself. The question then is whether his investigation of "the expression of the emotions" would be paradoxical if, due to the language barrier, animals do not share "emotions" with Homo Sapiens. The difficulties here are exacerbated by the fact that the term "emotion," like the term "feeling," has become denotatively so broad (especially in Psychology), it has lost any chance of emerging with some clear connotation—hence, the need for a phenomenological inquiry.

Was Darwin's quest for the *continuities* in Nature more compelling than the *difference* that "emotion" and the "language of the emotions" introduced into evolutionary theory? In essence, could he bridge "involuntary gestures" and the "language of the emotions" if it can be shown that the latter requires the presence of cognition—that, in effect, emotions are cognitive?

Darwin concluded his elaborate study of the "expression of the emotions" with a challenge to philosophy, but also an indication that the process of "domestication" on all levels is language-dependent. He wrote:

> We have seen that the study of the theory of expression confirms to a certain limited extent the conclusion that man is derived from some lower animal form…. We have also seen that expression in itself, or the language of emotions, as it has sometimes been called, is certainly of importance for the welfare of mankind. To understand, as far as possible, the source or origin of the various expressions which may be hourly seen on the faces of the men around us, not to mention our *domesticated animals*, ought to possess much interest for us. From these several causes, we may conclude that the *philosophy* of our subject has well deserved the attention which it has already received from several excellent observers, and that it deserves still further attention, especially from any able physiologist. (Darwin, p. 369. Italics added.)

Darwin's suggestion needs pursuing: the "philosophy" of his subject needs to bridge his interest in the physiological side with a phenomenological examination of emotion, especially if it turns out that such study confirms that emotions are cognitive. Whether the case can be made that the "language of the emotions" is continuous or discontinuous with the "expressions" of non-Homo Sapiens has become a problematic issue in modern philosophies of evolution. Such writers on language and evolution as N. Chomsky, S.J. Gould, E. Bates, among others, have disagreed in largely *philosophic* ways on the issue of continuity and language—in *philosophic* ways, since scientifically determined evidence is sparse and controversial.

Metaphysics of the emotions—from existence to experience:

The philosophic question, raised here, is whether the theory of the evolution of the emotions belongs exclusively to an *existence metaphysics* or to a *metaphysics of experience.* From John Dewey's standpoint, explored in his (1895) *The Theory of Emotion* (cf. Solomon, p. 85), the *un*critical 'Naturalism' of both Darwin and Wm. James led them to emphasize existence metaphysics (a mechanistic involvement with *biological* causation) at the expense of experience in a social framework—an emphasis more on the *involuntary* side of the Greek *synkinesis* than on the *volitional* side. The evolution of 'experience' required a capacity for voluntarily-driven directional trans-actions (psychologically reformulated by Dewey in his "The Reflex Arc Concept in Psychology" so as to avoid a reductive, existence-driven Behaviorism), and this entailed an evolution of the emotions beyond the more narrow biological scope of involuntary "feelings". The evolution of language served the evolution of *transactional social experience*, that is, served human survival, and therefore had to be more than a mere "expression" of feelings; by the same token, an evolving experiential language had to contain the variegated qualities which a multi-directional experience required. And once again, given Dewey's attempt to give emotion its due complexity, 'emotion' might then be defined as a *qualitatively variegated transactional experience involving a voluntary action which is linguistically/rationally driven and directed at the world via the medium of a socio/cultural framework.*

This would find support in the *hypothesis that language and emotion are isogenous.*

Returning to Bronowski's statement, with Dewey's point-of-view in mind, Bronowski would agree that it is misleading to say that "The most powerful drive in the ascent of man" is his capacity to "feel" (be *conscious* of) love, unless one adds a "readiness to act in certain ways. " Dewey notes: "I should not fear a man who had simply the "feel" of anger…", nor would Bronowski take seriously a man who simply had the "feel" of love. Hence, given Dewey's interpretation of experience as 'transactional', it makes sense for him to state {in an apparent agreement with Aristotle): "The connotation of emotion is, I think, always ethical, only secondarily psychical." Thus, expanding Bronowski's observation, emotion is not reducible to an 'existing' subjective 'feeling'; emotion, as a manifestation of the 'metaphysics of *experience',* is, then, *directional* by definition, that is, it is teleological, and its telic direction is toward *consummated action*. It is understandable that Dewey's major work in Aesthetics would emerge with the title: *Art as Experience*. Emotion is, therefore, more than a mere "expression", as Dewey points out in his departure from Darwin; it is an *action* whose qualitative character defines an experiential relationship between a person, an object, and a social context. As a teleologically driven *action*, emotion is not only purposeful and end-oriented, it provides the qualitative continuity that brings Bronowski's "skills" to the level of what Dewey called "art as experience." Emotion is therefore formulated not through the use of a passive verb ("feel"), but in the indicative active reference to "being": "I feel love" is not equivalent to "I *am* in love." The issue, then, turns on whether the term 'experience' is simply the domain of subjectivity when seen from the standpoint of *existence metaphysics,* but not when reconstructed so as to identify it as a "speech *act."* From the standpoint of a *metaphysics of experience*, 'feeling' and 'emotion' need to be distinguished *qua* 'experiences'. 'Experience', which ties emotion to action, produces the fully charged *consummation* that marks the presence of Art—"and having done it well," Bronowski predicts, "he [man] loves to do it better."

Errol Bedford's seminal discussion of emotion moves directly into this tangle. Bedford asks:

> What evidence is there for the *existence of a multitude of feelings* corresponding to the extensive and subtle *linguistic* differentiation of our vocabulary for discussing emotions? This assumption gains no support from *experience.* Indignation and annoyance are *two different emotions*; but to judge from my own case, the feelings that accompany indignation appear to differ little, if at all, from those that accompany annoyance. (Bedford, pp. 208f. Italics added.)

Bedford wants to eliminate the search for the *existing* emotion, since from the side of *existence metaphysics* emotion always appears illusive or subjective or both. Thus, the inconclusiveness which results from making subjective 'feeling' the basis of understanding an emotion leads Bedford to say: "…one cannot understand what it is to feel angry without first understanding what it is to be angry." Though it might seem so, this is not to say that an existence metaphysics should precede a metaphysics of experience. Attempting to gain that *understanding* by provoking "the feeling of anger" is no guarantee for understanding it, precisely because the subjective nature of feeling, when viewed from the standpoint of an existence

metaphysics, can be illusive. From an existence metaphysics, the subjective feeling becomes a *real existent*, and this results in an irresolvable dualism between two existents: subjective and objective. This opens the question of what it means "to *be* angry" and whether "*being* angry" is better accounted for from an existence metaphysics or from a metaphysics of experience. Bedford's thesis simply states: "….being angry is logically prior to feeling angry, and therefore . …being angry does not entail feeling angry, and *a fortiori* does not entail having any other feeling." (*Ibid*,) This interpretation underscores Bronowski's view, since it ties emotion to a non-subjective drive in the direction of an active, voluntary, motivational involvement with experientially-controlled developmental change.

In fact, it was Dewey's purpose to make emotion an active player in the concept of experience; to consciously move this discussion into a *metaphysics of experience* which is a *revolt against dualistic discontinuity*; a *revolt against a priorism*—the philosophic reduction that transforms the binary stresses of evolving experience into a metaphysics of fixed categories of existents; a *revolt against abstractionism*—the confusion of discrete concepts with experiential reality… Thus Dewey stated: "But the full emotional experience also always has its "object" or intellectual content." Furthermore, "The emotion is always "about" or "toward" something; it is "at" or "on account of" something, and this *prepositional reference* is an integral phase of the single pulse of emotion; for emotion, as well as the idea, comes as a whole carrying its distinctions of value within it." (*Loc. cit*.)

The directionality of emotion, as a directed *action* in a metaphysics of experience, is *non-subjective* precisely because it is always *bridged* to its object by the medium of reason: Thus, Dewey states, "Even the pathological or objectless emotion is so only to the rational spectator." (Dewey, p. 93. Italics added.) Dewey might have expanded this by adding the observation that the *pathology of the emotion does not lie essentially in its directional motion, in its 'at-ness' or 'toward-ness', but in the possible irrationality of the mediating reason that stands between the person and the object*. Hence, on close inspection, one might note that the presence of an emotion in a situation, because *action* is called into play, is always the presence of *some "disturbance*" in that situation—one that generally calls for some problem resolution. *Being* emotional is *being* disturbed! But from the standpoint of a metaphysics of experience, that 'disturbance' is expected—for here the term 'emotional disturbance' is tautological. Hence, when loosely defined by Psychology in an existence metaphysics, "emotionally disturbed" could lead to an overworked diagnostic language, too loosely applied (especially to over-medicated children) (Cf. Peter Breggin [1994] *Toxic Psychiatry*.)

Dewey sums up his reaction to Darwin by stating: "*The reference to emotion in explaining the attitude* [that is, the 'expression'] *is wholly irrelevant; the attitude of emotion is explained positively by reference to useful movements."* "I am angry *at* you…*because*…" And now we would expect a rational account of a teleologically driven action.

Not only, then, are emotion and language (as the medium of thought and culture) experientially homogenized by the prepositions which language supplies emotion—or, conversely, which the dynamic directionality of emotion supplies language, but it is also evident

that the mediation by reason of the emotion-object relationship implicates language both as the vehicle for a social projection of the emotion as well as the instrument for the rational mediation of the relationship; and this would seem to support the hypothesis that emotion and language must be isogenous for *qualitative experience* to evolve. The concept "quality" (as against "quantity") consists of the marriage of emotion and language. The commonplace definition of the term "*quality of life*" is "*the degree of emotional, intellectual, or cultural satisfaction in a person's life as distinct from the degree of material* [quantitative] *comfort…"* This further suggests that the popular notion that emotion and reason are *psychologically antipathetic* is the result of the consigning of this relationship to a metaphysics of existence—a metaphysics which transforms functional distinctions into dualistic reifications.

From Biology to Language—and Back Again

But does the emotion/language nexus transform *existence* into *experience*? In effect, if evolutionary biology is ultimately reducible to molecular biology, then existence and experience end up being metaphysically discontinuous. To avoid this, C. H. Waddington (1972) insisted on a paradigm shift: "Language" he suggested "may become a paradigm for the theory of biology." And in that same anthology, H. H. Pattee argued that "Dependence on symbol structures and language constraints is the essence of life…it is not the structure of molecules themselves, but the internal, *self-interpretation* of their structures as symbols that is the basis of life …It is only the integrated set of rules of grammar and interpretation that gives these particular physical structures their symbolic attributes." If that paradigm shift can be broadcast across the board, then it might also involve the integration of emotion in that "self-interpretation" of the "structures" of molecules that become part of "the basis of life." Emotions, then, are not "simply located" in the prefrontal cortex of the brain.

Reductionist neo-Darwinian evolutionary theory and "cognitive biology" have struggled with the claim that existing human faculties, such as language, are *continuous* with biological manifestations that pre-date Homo-Sapiens. Two different philosophic perspectives on Darwinism have emerged: In a reductionist *existence metaphysics*, orthodox neo-Darwinian evolutionary theorists have tended to make problematic the *continuity* between man and animals by identifying "random processes. . . with the formative power of evolution. Genetic mutation and natural selection are said to suffice for the appearances of new forms." (Boden, p. 98.)

However, an evolutionism based on a *metaphysics of experience* (explored by John Dewey in his critical analysis of the mechanistic interpretation of the "reflex-arc" concept in psychology, and by such "cognitive biologists" as C. H. Waddington and B. C. Goodwin in the 1970's) opened the possibility of a new approach to the issue of "continuity". Reacting to orthodox neo-Darwinism, Waddington and Goodwin attributed "a more genuinely creative power to the evolutionary process than most biologists do." Goodwin wrote: "In my approach the organism is regarded as a cognitive system, adapting and evolving on the basis of knowledge about itself and its environment. The dynamical modes of an organism's behaviour are represented as manifestations of co-operative or collective activity among cognitive units,

development being seen as the orderly unfolding of these modes within a structurally stable, knowledge-using system" (Boden, p. 99). If Goodwin can use "the cognitive concept of pattern-recognition to express what is going on" even "at the relatively low level of biochemistry of enzyme action," the applicability of "cognitive biology" to Darwin's "language of the emotions" should be *a fortiori* evident.

But what is more interesting in Goodwin's work, as discussed by Boden, is his use of *language* as the functional instrument for establishing continuity in both intra- and inter-species development.

Phenomenological analysis:

Since it seemed obvious that of all human faculties the one least homologous with the rest of Nature was language, it was predictable that Darwin would soon search for continuity by examining the one place where continuity might be found—viz., the "language of the emotions." In his *The Expression of the Emotions*... it becomes clearly evident that the bio/language c*ontinuity* issue is of vital importance for Darwin, and this is locked into the question of the relationship of emotion and language in general. Following J. M. Bochenski's directive (*The Methods of Contemporary Thought*, 1965), a phenomenological analysis of the emotion/language nexus is necessary; however, a phenomenological analysis of the *experience of emotion* does not preclude somatic, neurobiological, or cognitive interpretations. Seen phenomenologically, (**a**) All emotions share the characteristic of experiential *directionality,* and, as such, *unlike subjective feelings*, emotions are the most direct and forceful instruments of 'public communication'. (**b**) Furthermore, the language of the emotions comes with a morphology that consists of direction-bearing prepositions, declensions, verbs, and accents, and these also make possible a 'public communication' process. The result is that while *emotion gives language its qualitative character,* it is also the case that *language structures the directionality of emotion so as to make available an infinite range of possible expressions.* The general ontology of emotion is buried in the *verbs* used to express directionality, verbs that are more active than passive: It is not a question of ***having a feeling,*** but of ***being in motion*—**that is, it is not a question of how one ***feels***, but how one ***is,*** not of *having* anger, but of *being* angry. It is not that I *feel* angry or *felt* angry; rather, it is the case that I *am* angry or *was* angry. This ontological status of the verbs of emotion, this "language of the emotions," serves to bridge the experiential language of humans with the projective utterances of those animals that cannot "speak" but can, in fact, "say" things to each other as well as to man (to use Heidegger's distinction). And this "saying" which animals use is no more "subjective" than is the human "language of the emotions" which comes in the form of "speech acts." The directional "language of the emotions" is the projection of "meaning" on an *antepredicative* or *predicative* level. But neither of these levels is definitively 'subjective'. Without getting into Wm. James' somatic theory of the emotions, this relation of the emotions to language is something James recognized.

Phenomenology : 'Thin' and 'Dense' (Bipolar) Emotions:

This question is often asked, especially in reflective conversations on religion: "In order to love someone, must one also love oneself?" Often, this occurs in a conversation concerning what it means to say that *man was created in God's image*, and, hence, if "God *is* love!" and if God *loves* man, must God love *Himself* as well? Therefore, must man first love himself in order to love others? But can one clarify this without resorting to an *existence metaphysics*, one in which man's love and God's love can only be analogically related, notwithstanding the "in God's image" premise?

From the standpoint of a *metaphysics of experience*, while avoiding a "psychological" approach, an answer to this question can stand on its own feet: Emotions have built-in directionalities, and some have a greater "density" (or inner 'complexity') than others. As an example, *anger* is an outer-directed emotion, and is almost immediately recognized when presented. When one is *angry at* another, it would be *absurd to expect the angry person also to be angry at himself*; but when, on occasion, a person is *angry at himself,* the anger is still directed outward—from conscience to a self-in-action. *Love*, however, has a way of flowing back, it is refluent: one loves oneself in the process of loving another; collaterally, one 'feels good' about loving another—even if that directed love is not openly received.

Hence, as an emotion, "love" has a greater density than anger, and is not always recognized even when displayed; sometimes the displays themselves are spurious. Anger has a way of expressing itself as knowledge—"I *am* angry!!" It makes no sense to say, "I *believe* I am angry!" It is self-evident! However, "I am in love…I believe?!!" "Love" is a *bipolar emotion*: To love someone and not to love oneself for loving would in all likelihood be a spurious "love"—love as theater. The authentic bipolar emotion of love moves toward a consummatory actualization—toward the ecstatic; so strong is this directional movement, refluence is inevitable—from convulsive infatuation to doubt. And failure brings with it, as Solomon points out below, a barrage of collateral feelings.

Given the prepositional directionality of the emotions, we can use Solomon's framework to characterize them. Solomon distinguishes "inner", "outer" and "bipolar" directedness, but argues that the emotions are mostly bipolar in form. In Bronowski's statement, "love" as the "*drive* in the ascent of man" achieves much of its power from its "bipolarity": as Solomon indicates, and as is evident in Bronowski's statement, love-as-nurturing has a positive consummatory *effect* on the loving agent, one which motivationally binds the agent to the *welfare* of his object world. The bipolarity of emotion opens the possibility of a suspension of action so that a rational weighing of the action can socially safeguard participants in the action. The consummatory phase is, however, refluent: the object world soon repays the compliment through growth. Human experience *qua* human is a product of the potential bipolarity of all emotions, though some instances, like "anger," seem predominantly outer-directed. (Solomon, *The Passions*, p. 228.)

Solomon takes a broad view by distinguishing emotions, passions, feelings, and desires, and argues, for example, that "Frustration, like contentment, could be argued not to be an

emotion or a passion as such but rather the result of the *lack of* satisfaction of emotions and other passions (primarily desires).” (*Ibid*., p. 256.) This clearly fits into the notion expressed above that emotion involves a directional drive toward a consummatory experience, and brings with it a range of collateral feelings. Hence, looking at Solomon’s rather extensive list, and keeping in mind his distinction between emotion and collateral feelings, it becomes clear that the schematization of the emotions is far from simple. While Solomon’s framework involves a seriatim listing of common terms, a variety of schematic constructions based on prepositions that are *directed at* objects (dative case) but are bipolar, makes possible an abbreviated scheme. A Phenomenological description:

Need

Needs or desires (“wishing”) as expressions of feelings are *inner-directed*. What is wished for is a satisfaction that comes from some outside source. Many ‘feelings’ are experienced as needs, as are (non-motivational) ‘*wishes*’. ‘Feeling ill’ indicates a need for some outside relief. NEEDS are more directly dependent on an object and therefore fit better, grammatically, with genitive and accusative cases: “[From you] I need love” or “I desire love” or “I need your love” is not an expression of an emotion in this sense: it lacks motivational directedness. It lacks the bipolarity of an “emotional” love.

Emotion

’Empathy’ is a clear instance of a *complex bipolar emotion*: it is the experience of the suffering of another by suffering oneself. Being angry *at’*... is outer-directed, though it can also involve an anger at one’s own susceptibility to malfeasance. As Dewey and Bedford indicated, true emotions are expressions of motivated acts: “feeling anger” is the expression of a “need”, the need to be released; “being angry” is, generally, the public manifestation of motivated movement in the direction of an action—hence a paradigm version. The *complexity* of the emotion “love” comes through as a long chain of possible polarities which simple “needs” lack: conditional love, unconditional love, reciprocal love, non-reciprocal love, love as charity, as friendship.….

Emotionally-Driven Motivation

Motivational language (‘wanting’ vs. ‘wishing’) is generally outer-directed, mediated by reason. It qualifies the emotive character of activity when directed toward different consummations: free vs. forced, work vs. labor, art vs. technology, etc.

Emotionally-Driven Valuation

“Value” transforms qualitative emotions (the experience, for example, of love) into measurable and quantifiable experiences. Love as a qualitative experience does not invite questions about “measure” and “criteria”: “How do I love you?” Shakespeare asked in his love sonnets: “Shall I

compare thee to a summer's day?" (Sonnet 18.) Each of his responses stood on its own qualitative feet. He was not asking whether one manifestation of love was preferable to all others. And, by far, in the most celebrated love poem of Elizabeth Barrett Browning, when she asks: "How do I love thee? Let me count the ways.", (*Sonnets from the Portuguese*, 43), Browning is pursuing a qualitative inquiry; quantification is not her objective. The *judgment* of a quality inherent in an object opens emotion to an inherent value. For some philosophers, such emotions are directed to *properties inherent in an object, known a priori*; when, for others, such *properties* are *known empirically*, emotions become conditional in nature and subject to measurement and quantification; here, emotion becomes an aspect of Economics. Valuation can also include criterial references to social and subjective norms ("taste"), authority, and pragmatic utility.

The Problem of 'Continuity'

In his essay, "The Influence of Darwinism on Philosophy" (1909), John Dewey attempted to move Darwinism away from an "existence metaphysics" to a "philosophy of experience." Here, Dewey

> credits Galileo in physics and Darwin in biology for establishing a model of scientific explanation that shuns final causes. This model permits new scientific concepts liberated from permanent forms to deal with the changing and impermanent. Darwin's reconstruction of the term "species" is more instructive, retaining the requirements that (1) changes must be understood in their specific environing conditions, (2) nothing in nature answers to any universal definition of an essence of a thing, and (3) a priori definitions using fixed concepts must be replaced by provisional definitions using flexible and revisable concepts. These three principles, applied in philosophical inquiry as Dewey himself attempted, would result in a philosophy that "forswears inquiry after absolute origins and absolute finalities in order to explore specific values and the specific conditions that generate them."(Shook, p. 200).

In essence, Dewey proclaimed that Darwinism turned the philosophy of evolution away from an "existence metaphysics" to a "metaphysics of experience": through an examination of the instrumental workings of language in a *contemporary experiential* framework, one can project whether experience would be possible without language, whether and how language serves experience, whether other species can have experiences given their language capacities or limitations.

In his discussion of the evolution of the verbal from the nonverbal, Leonard Shlain writes: "Gesture is such a vital component of speech that it is nearly impossible to have a conversation without it. In some cases it is the more expressive mode. Anyone asked to describe a spiral staircase will inevitable accompany the spoken answer with a corkscrew motion of the hand. This pantomime is far more descriptive than words can be." (Shlain, p. 41.) But "gestural

language," Shlain points out, is limited qua language: "It did not work in the dark. It monopolized the receiver's vision…A language based on gesture placed too many demands on valuable survival resources." (*Ibid*., p.13f.) The "language of the emotions," referred to by Darwin, now serves as the bridge between gesture and that "discrete infinite" system, to use Chomsky's term, which is spoken language.

However, if emotion and language are isogenous, where does that leave other species? Chomsky and others have examined the evidence in support of "continuity" and have found it questionable; and Darwin seemed to avoid making apodictic claims concerning such evidence. It is suggested here that all *theories of emotion, including Darwin's,* presuppose a commitment to *some epistemology*, and that this dependence conceivably accounts for the wide spectrum of significations attached to "emotion" as a concept. Philosophies of evolution have preferably explored the "*language* of the emotions" , thus turning their attention to the evolution of the "emotion/meaning" nexus rather than the "causal/ physiological" nexus. Hence, notwithstanding the early impact of William James' "somatic" theory and the "neurological" theories that soon followed, the majority of modern theories have been "cognitively" inclined.

Evolving Language: Continuity and Difference:

Whether evolution is a uniform process governed by mechanical laws, or is subject to chaos-producing possibilities, is an issue that haunts Darwin's work on the "expression of emotions in man and animals." Could "emotion" serve as the connective tissue that would answer his core question: Can the descent of man be demonstrated? Does the existence and nature of emotion serve to demonstrate the ontological presence of *continuity* and *difference* in Nature? Is emotion an instinct, is it a *post hoc* learned habit, is it language-dependent, or does it make its first true appearance with the advent of the knowledge-relation and thinking?

An important question is whether Darwin's attempt to demonstrate *continuity* in animal and human evolution comes at the expense of obfuscating the possibility of difference, especially when the *expression* of the emotions becomes synonymous with the *language of the emotions*. Darwin recognized that the term "language" presumes a quantum leap onto another evolutionary level, especially significant because his test to determine whether something is initially "natural" is whether it is "universal" in species-specific contexts. Near the end of his work on the expression of the emotions, Darwin 's illustrations are not reducible to Shlain's "corkscrew" example. Darwin notes:

> Certain other gestures, which seem to us so natural that we might easily imagine that they were innate, apparently have been learnt like the words of a language. This seems to be the case with the joining of the uplifted hands, and the turning up of the eyes, in prayer…The evidence with respect to the inheritance of nodding and shaking the head as signs of affirmation and negation, is doubtful; for they are not universal, yet seem too general to have been independently acquired by all the individuals of so many races. (Darwin, p. 356.)

Now this is an odd admission on Darwin's part: First, he cannot mean that this "nodding and shaking of the head" is merely an *expression* in the form of a physiognomic gesture, for then it might be universal; and yet if such expressions are "generally" but not universally present among humans, it would seem to indicate that a certain uniformity exists among different languages. It seems to suggest that the "language of the emotions" grows—not just horizontally or vertically—it grows exponentially in *density*.

This discussion seems to move in the direction of a "language of emotions" that exceeds the limitations embedded in the generic term "expressions." If Darwin is going to build continuity into his position, then the transition from "expression" to "language" must come through. If there is a *difference* between "expression" and "language," then it would be helpful to distinguish the gesturing that is pervasive on a physiognomic level from the more complex notion of "language of the emotions." Darwin seems so intent on demonstrating continuity, he cites Herbert Spencer's "clear [*sic*] distinction between emotions and sensations, the latter being 'generated in our corporeal framework.' *He* [Spencer] *classes as Feelings both emotions and sensations*." (Darwin, p. 32. Italics added.)

Whether the "language of the emotions" is continuous with or different from the "expression of the emotions" becomes a congested issue as Darwin moves to the question of levels of expression. In his summary chapter, utilizing an undefined language, Darwin imposes *epistemological continuity* on the "expressions of man and animals"; but he ends on a note of uncertainty. Darwin did not solve the epistemological problems generated by Spencer.

> Monkeys soon learn to distinguish, not only the tones of voice of their masters, but the expression of their faces, as is asserted by a careful observer [Renegger's 'Naturgeschichte…' 1830]. Dogs well know [*sic*] the difference between caressing and threatening gestures or tones; and they seem to recognize [*sic*] a compassionate tone. But as far as I can make out, after repeated trials, *they do not understand* [*sic*] any movement confined to the features, excepting a smile or laugh; and this they appear, at least in some cases, to recognize. This limited amount of knowledge [*sic*] has probably been gained both by monkeys and dogs, through their associating harsh or kind treatment with our actions; *and the knowledge* [*sic*] *is certainly not instinctive*. (*Ibid*.,, p. 361. Italics added.)

While Darwin follows this statement with the observation that children, through a "very small exertion of reason" could determine what "crying or laughing meant in others," he concludes that very young children cannot bring reason to bear on some subject: Children are governed by "innate feelings" which are expressions of "instincts"—instincts of sympathy, for example, which can "excite grief" in them. (*Ibid.*, p. 362.) If Darwin is attempting to support the notion that all "expressions of the emotions" in man and animals are univocal because governed by a ubiquitous set of epistemological categories, then it would seem that all "expressions" fall under the rubric "language." And so the issue of *difference* goes unaddressed. But difference is a vital part of the concept of evolution.

An Ontological Hypothesis concerning "Feeling" and Emotion":

The hypothesis is that "feeling" is governed by the *identity of the subject*—that is, involves an ontological subjectivism, while "emotion" is directed toward the *ontological primacy of the "other."* The conjecture, then, is that "expressions" evolve in the direction of language at the point when "meaning directed at the other" emerges.

On a bio-social level, the broad base of animal "instincts" provides the continuity required for group life, but seems to give way to inheritable difference: "It is far more probable that the many points of close similarity in the various races are due to inheritance from a single parent-form, *which has already assumed a human character*." (Darwin, p. 364. Italics added.) Darwin ends with what should have been a question asked earlier in his text: "We have also seen that *expression in itself*, or the *language of emotions*, as it has sometimes been called, is certainly of importance for the welfare of mankind." (*Ibid*., pp. 369f. Italics added.) And yet, in another place in his final chapter, Darwin moves from the instinctive, seemingly involuntary level of expression, to the level of "will": "Here it is obvious that the consciousness and will must at first [*sic*] have come into play; not that we are conscious in these or in other such cases what muscles are brought into action, any more than when we perform the most ordinary voluntary movements."

Whether or not this statement can ultimately be clarified, the notion of "will" (as against "impulse") in traditional psychology seems to imply some rational tie to action. In any case, the theme of this paper is that "the *language* of the emotions" requires a foothold in the sphere of rationality, that is, it is part of a larger theory of cognition; furthermore, since a language has an intrinsic involvement with a public/social matrix, it should not be confused with the broader, generic term, "expressions", especially if "expression of the emotions" is understood in Spencer's seeming effort to bring "emotion" conceptually under the umbrella of "feeling". "Feeling" often connotes something non-rational or irrational, but also denotes a subjective sensing. And though Darwin was concerned about the *continuity* of evolutionary events, he was also interested in those *differences* that required a theory of evolution in the first place. Hence, on the appearance of language, he noted that: "If it be maintained that certain powers such as self-consciousness, abstraction, etc., are peculiar to man, it may well be that these are incidental results of other highly advanced intellectual faculties, and these again are mainly the result of the continued use of a *highly developed language*." (Cited in Bickerton, p. 5. Italics are added.) But this leaves open the question whether non-humans had language, but one less developed than man.

But it was Ferdinand De Saussure who, in his *Course in General Linguistics* (1916), was most persuasive in giving emphasis to "the differential character of language, and the arbitrary nature of the sign." De Saussure's claim that "'in language there are only differences without positive terms,' served as an important instrument of displacement of the [traditional] *privilege of identity*. Moreover, his characterization of the subject as a function of the linguistic system called into question the received account of language as the product of a speaking subject, reversing the terms of the philosophy of *subjectivity* handed down by Descartes." (Donkel, p. 6.

Italics added.) This paper proposes and explores the idea that such linguistic devices as prepositions, adverbs, and declensions evolved as a "language of the emotions" as the outward pulls and pushes of life in Nature became more complex, more transactive, more challenging to a survivalist version of the "privilege of identity." The subjectivity of the "subject" is catapulted into an open communal or public matrix. Being "angry ***at*** someone" manifests itself as a transactive "***at-ness***" whose intentionality is "not-to-be-missed or mistaken." It is much richer than the interactive "at-ness" of hunting prey. Following De Saussure, the *difference* between these two motivates an evolutionary move from a pre-predicative to a predicative use of prepositions: the invention of a language with a "differential character."

Given this concept of "difference," it is suggested in this paper that Darwin's passing reference to the "language of the emotions" (against the more subjective medium of "expressions" of emotions-seen-as-feelings) can more easily demonstrate the importance of emotion in the evolution of human language: That "learning to think with emotion" (Root-Bernstein, A64) gets distorted when made equivalent to the phrase "learning to think with feeling." The difference is evident in the statements of two major contributors to the process of "thinking with emotion": E. E. Cummings is quoted as saying: "[t]he artist is not a man who describes but a man who FEELS [*sic*]." But this does not move us beyond the "privilege of [the artist's] identity." The cyberneticist, Norbert Wiener, has a different view: "[i]f there is one quality which marks the competent mathematician…I think it is the power to 'operate' with temporary emotional symbols and to organize them out of a semi-permanent, recallable language." (Ibid.)

'Continuity' as an Epistemological Issue:

The issue here is to find some way to compare and contrast the instinctual expressions of the "feelings" which animals and humans exhibit with the "language of the emotions" mentioned by Darwin (parenthetically). The term, "the *expression* of the emotions," was perhaps his way of avoiding the conflict over the issue of inter-species language *continuity* that the term "language" inevitably introduced, especially since a "language" must at least contain a grammar and syntax. From a philosophic standpoint, Darwin's drive toward cross-species continuity through a cosmological reductionism empowered philosophy to avoid the non-evolutionary dichotomizations and discontinuities that were earlier promoted by Kant and the Neo-Kantians who were Darwin's contemporaries. But Darwin's reductionism, while it revolutionized the traditional theories of development and transaction, did so by precisely avoiding the *linearism* of Hume's epistemological ontology, one that led to later misinterpretations of Darwin's theory.

Thus, while a closer epistemological model for Darwin's developmental theory, one that Kant explicitly eschewed, might seem to be Hume's reductionist epistemological ontology, it was arguably Hume's epistemology which contributed to the notion of an evolutionary "gap" which language and cognition seemed to create for evolutionary theory. It was an easy move from Hume's simple sense elements, elements whose transactions went on without any perceivable web of causation, that seemed to serve Darwin's notion of Natural Selection. Hume's epistemology of rudimentary concretions evolving into complex concepts mirrored Darwin's

biological drive toward complex organisms. It is this effort to use the "simplicity-complexity" rubric as the backbone of evolutionary development that lies at the heart of the language dispute: Hume's principle of abstraction, that all manifestations of development involve a move from the *simple to the complex*, seems to meet resistance especially in the emergence of language (the point stressed in Levi-Strauss' reaction to Saussure). From Kant to Chomsky, the developmental gap which language seems to introduce calls forth the controversial use of the concept of the *a priori*.

It was, therefore, little wonder that Darwin's famous contemporary, the linguist Max Müller, in his "Lectures on Mr. Darwin's Philosophy of Language," delivered in 1873 at the Royal Institution, used Kant and language as a basis for rejecting Darwin's entire theory of evolution. Ever since, language has been the bone of contention for anyone attempting to generalize Darwin's theory. On inspection, it might very well turn out that, in Müller's Kantian critique, Darwin was seen as a species of Hume's epistemological reductionism—an identification of *concreteness* with *simplicity*. But Darwin's theory requires a different direction—one in which what is *concrete* is actually *complex*. This qualification would seem to support Steven Pinker's argument (*The Language Instinct*) that much confusion emerges when Darwin's concept of evolution is confused with the traditional (theological) notion of the 'Great Chain of Being', with Classical teleological explanation, and the "ladder" metaphor as applied to the evolution of species. Two things are missing in Hume's epistemological model: the instrument that makes "complexity" a product of evolution, and the element of chance which opens new possibilities, i.e., first, "adaptation", and second, "chance randomization". As Pinker states: ". . . *adaptive complexity*. . . is also the reason that the evolution of complex organs tends to be slow and gradual. It is not that large mutations and rapid change violate some law of evolution. It is only that complex engineering requires precise arrangements of delicate parts, and if the engineering is accomplished by accumulating *random changes*, those changes had better be small." (Pinker, p. 315. Italics added.)

Pinker put his finger on the problem: if the ladder metaphor is used to account for developmental evolution, then it would seem obvious that "language" would have appeared, as such, at some point in time/place. Pinker states:

> The fallacy in all this is that there is some line to be drawn across the ladder, the species on the rungs above it being credited with some glorious trait, those below lacking it. In the tree of life, traits like eyes or hands or infinite vocalizations can arise on any branch, or several times on different branches, some leading to humans, some not. There is an important scientific issue at stake, but it isnot whether some species possesses the true version of a trait as opposed to some pale imitation or vile imposter. The issue is which traits are *homologous* to which other ones. (Pinker, p. 303.)

And, Pinker concludes, "The brouhaha raised by the uniqueness of language has many ironies. The spectacle of humans trying to ennoble animals by forcing them to mimic human forms of communication is one. The pains that have been taken to portray language as innate,

complex and useful but not a product of the one force in nature that can make innate complex useful things is another. . .Darwin emphasized the genealogical connectedness of all living things, but evolution is descent *with modification*, and natural selection has shaped the raw materials of bodies and brains to fit them into countless differentiated niches." (*Ibid*., p. 322,)

The search for "*homologous traits*" for language, and for the "language of the emotions" specifically, needs to be undertaken. Here, phenomenological method is helpful. But from the stand point of epistemology, the work which Dewey undertook in 1909, "The Influence of Darwin on Philosophy," it seems obvious that the philosophy of Pragmatism is the most successful approach to couching "the language of the emotions" in a philosophy of evolution.

Nevertheless, if there is an *ontological* difference between the "involuntary expression of feelings" and the "language of the emotions," it might yet be the case that the "language of the emotions" can become the hypothetical bridge that provides the *continuity-with-developmental-modification* which Pinker discusses. It would appear, then, that the only way onto this bridge would be by means of a phenomenological examination of the concept of "emotion." Until this method is applied, the methodologies which are used to characterize the emotions, those with diverse epistemological presuppositions, will continue to lead to diverse characterizations. "Phenomenological observation" is necessary since "No object is simple: every object is infinitely complex, consisting as it does of various components and aspects which are not all equally important. Man cannot grasp all these elements at once—he has to consider them one after the other." (Bochenski, p. 17.) It is suggested here that the unavailability of such a method led Darwin into a meandering search for some way to characterize emotion.

"Thinking with Emotion"—Bipolar Speech:

It should not seem odd, then, that after writing an extensive study of the variegated "expressions of the emotions in man and animals" (1872), Darwin would conclude his treatise with a reference to Shakespeare's *Hamlet*. Darwin's intention was to point out how the advancement of *aesthetic* and *moral expressions* in man are made possible "from the *intimate relation* which exists between almost all the emotions and their *outward manifestations*….Even the simulation of an emotion tends to arouse it in our minds." (Darwin, p. 369. Italics added.) Darwin discovered that in humans and animals there evolved an increasingly broad capacity to control the surrounding environment through "gesturing"—from an autonomic (behavioral) capacity ("playing dead" when threatened), to a more deliberate multi-dimensional play-acting that requires the mediation of a rational mind. Darwin thus brought emotion to the fore and gave it a key place in nature's drive toward survival and selection. There is however a difference between Shakespeare's staging of Hamlet's attempt to trap the felonious King in the play and what transpires in a colony of ants when the Queen dies. As E. O Wilson describes it (fictionally), ants communicate through the use of *signals:* "Messages were created with a single chemical substance…Some signals, such as the alarm pheromones, spread and faded fast, drawing the attention of nest mates locally…Even as her body began to decay, the pheromones she had manufactured in life

persisted in the minds and bodies of her colony…Her visual appearance, her stillness, meant nothing…The Queen had to smell dead in order to be classified as dead." (Wilson, p. 59.)

The question is whether these ants were communicating through "expressions" which would meet Darwin's definition of "emotion." If a *bridge* were needed to bring some "emergent" into being, the emergence of language from mechanical gesturing, or community from biophysical aggregation, emotion could play that role. But emotion must therefore be the ontological means for transforming innate or mechanical gesturing into organically interconnected realities—the bridge from reactive, subjective "feelings" into moral and social language or into aesthetic realities. But this interpretation, as Darwin noted, brings into question the conceptual difference between the notions "feeling" and "emotion," as well as "sensation" and "thought."

Emotivism and Cognitivism:

Darwin begins the discussion of his "general principles of expression" by indicating that these principles appear to him "to account for most of the expressions and gestures involuntarily used by man and the lower animals, under the influence of various emotions and sensations." The contention elaborated in this paper is that this conceptual compression of emotion and sensation into "Feeling", since it makes "Feeling" generic for all expressions, makes it denotatively so broad it loses its connotative meaning. The resulting ambiguity leads in two different directions: Emotivists argue that emotions are simply (subjective) feelings, while Cognitivists argue that this reduction of emotion into feeling does not account for "cognitive emotions" without which "expressions" would not evolve into a human "language of the emotions"—at least one which would allow the transformation of Hamlet's rage-driven behavior into a protracted and subtle, though nefarious, plan to trap the king. (Nor would T.S. Eliot's dramaturgic critique of Hamlet's rage be necessary, for the question of an "objective correlative" would require a level of evaluation on Hamlet's part that might have neutralized Hamlet's emotion-laden poetic ruminations.) If feelings, in the form of physiognomic gestures, and cognitive emotions, were ontologically univocal, the question of the relation of "non-human" to " human language" (cf. Hayes, 1975) would be easier to resolve. In any case, without Hamlet's spoken introspections, his behavior would dissolve into gestural madness. The audience, hearing Hamlet's inner thoughts in the form of soliloquies, grasps that he is *"thinking with emotion"*; Polonius merely sees him as possessed with madness.

Is *Art* an Evolutionary Development of the Capacity "To think with emotion"?

Feeling and *emotion,* given univocal ontological status, would seem to make less sense, given Darwin's recognition that an advanced "language of the emotions" would make possible both inner and outer dialogue. Darwin notes that Shakespeare had "a wonderful knowledge of the human mind," but does not make explicit what this "knowledge" consisted of. Darwin turned to the "play within the play" in act ii, scene 2 of *Hamlet,* and to Hamlet's famous soliloquy:

Is it not monstrous that this player here,
But in a fiction, in a dream of passion,

Could force his soul so to his own conceit,
That, from her working, all his visage wann'd;
Tears in his eyes, distraction in 's aspect,
A broken voice, and his whole function suiting
With forms to his conceit; and all for nothing[!]…

But why *Hamlet*? How does art bridge the physiognomic expression and the seeming cognition-laden emotion so that social meanings can be activated and transmitted. Is there a latent "language of the emotions"? Or better, is there a *language **in** expressions* that is the germ that gradually evolves into monological or dialogical language? But what evolves—and when? Hamlet ends his soliloquy with a fateful plan of action: "*the play's the thing wherein I'll catch the conscience of the king."* Hamlet (or Shakespeare) *knew that the king's thinking, driven by this play-within-a-play, would generate the public display of emotion, just as Hamlet's "thinking with emotion" generated this incendiary play.* In both instances, the presence of emotion involved a drive toward some public manifestation—some direction-bearing action, without which "play" would disappear. Hamlet's *contrived* play-within-a-play was driven by his emotions, and a *non-contrived* reaction of rage was driven by the King's thoughts. We might define what Shakespeare "knew" as follows: *All productive thinking is "thinking with emotion"—a thinking encased in projective language.* And this is an evolutionary leap beyond the capacities of subjective, "feeling-dependent" creatures—non-human or human—that exist as "identities" but that cannot project "differences." These are De Saussure's "differences" without which *Hamlet c*ould not have been created.

Without attempting to pursue a philosophic issue already under discussion in his time, and certainly in an earlier time (with Hume, for example), Darwin sensed that Shakespeare was plying the notion that *feeling* and *emotion* do not have identical intentionalities—that an actor can project an *emotion* without subjectively *feeling* what is being projected: he can *be* angry in the sense that it becomes a public manifestation, and yet, at the same time, *feel* something else—that is, not experience any of the physiological manifestations of anger or fear. Were this not the case, a stage play would soon disintegrate. In the moral sphere, a lie-detector taps into the autonomic system in order to undercut emotional/cognitive controls.

That one can publicly manifest (express) an emotion with no corresponding subjective feeling, allows Darwin's "the language of the emotions" to move to a higher level than mere feeling can aspire to—to the level of art and thought. If "feeling" is an unanalyzable (subjective sensory) quality (Hume)—as in "I *feel* this!"—it would be too weak a foundation upon which to build a moral position. Arguably, it is the weakness of Emotivist Ethics that it construes "emotion" as "feeling" and thereby defines as "emotional" that which is on the other side of rationality. The psychological implication is that the emotion side of the emotion/cognition complex is the locus of psychopathology, a condition that becomes a physiological issue and is addressed with appropriate medications. The rational ground of emotion, which is expressible as a mediating link between agent and object—a ground which is publically available, and which exposes an agent's motivation is thus bypassed. The jurisprudential notion that criminal

culpability can be excused on the basis of an excrescence of emotional energy is thus open to serious question.

Language, 'Continuity,' and Grammar:

The evolutionary transition from "non-human expression" which consists of "physiognomic gestures" to an expanded expressive language, a "language of the emotions" which allows for the possibility of "learning to mean," needs exploration. The non-human language of physiognomic gestures is not yet a "natural human language," since it isn't variegated enough to require two possible "meaning-conveying" bridges: translation and interpretation; a syntax and grammar would also be required. And, *a fortiori,* what gives human language its significance as a socio-human medium is its requirement—or demand—for what Neil Wilson (and Donald Davidson) called the "Principle of [interpretative] Charity" (Evnine, p. 103).

It would seem understandable, then, that the evolution of a human language, like ancient Greek, would move the level of physiognomic gesturing toward the formation of a *case* or *declension system,* a system of *prepositional indices* embedded in nouns, and a system of voice modulations (later added as a system of three accents) for different cognitive emphases. In such a system, the pervasive presence of emotion requires a spectrum of strong and weak semantic expressions, indicating "excitement" (*esmovoir*) on the one hand, and an outward "motion" (*exmovere*) on the other. To meet this need, the Greeks use a special *declension,* one that provides the strength of a warning or command, especially useful in the precarious environment of animal and human life—but then, all other declensions could be construed as qualified manifestations of what Darwin called "the language of the emotions". The strong gesture that served evolutionary survival makes its appearance in human language through the commanding *vocative declension*. It might not be a far stretch to argue that the evolutionary transition from "non-human language" (Hayes, p. 280) to "human language" involved a bridging from simple gestural warnings to this declension*;* or, that an implicit vocative declension lies buried in some form in pre-human, physiognomic gesturing. This might be the earliest bridge in the evolution of language.

The connection between non-human and human language is evident in Cathy Hayes' attempt to bring up an ape from birth in her home, treating it as she would an infant human child. Referring to the ape as "Viki," Hayes made this observation: "She often seems ignorant or deaf to a certain command until a sharp [bellowing] 'Viki!' brings a delayed but proper response." Hayes wrote: "chimps are not selectively bred for obedience to verbal commands, as are horses, dogs and people." (Hayes, p. 283.) For this form of communication, the vocative declension in Greek bypassed complex article paradigms and went directly to the noun in the form of a direct reference or command: *w adelphe*!—"Brother!" Or *w anthrope*—"O' Man!" Hayes concluded: "We anticipate that Viki will understand more and more of what we say as time goes on, but we doubt that her comprehension will ever go further than simple commands and the names of things (cf. Levi-Strauss). And without more involved language, with only gestural

demonstrations, a teacher can transmit very little knowledge to her pupils." (Hayes, p. 286.) And yet, when one reads on, it seems that Viki *is* sensitive to other noun declensions.

What has evolved to make the difference in language learning between the infant ape and the human child is the bone of contention between Nativist and Environmentalist (inclusive of Sociolinguistic) theories. The contentious discussion persists, as is indicated in a recent Science section of *The New York Times*. It is now 137 years since Darwin wrote his book, *The Expression of Emotion in Man and Animals*, but since the concept "expression" is much broader than the concept "language," it seems that little progress has been made in capturing the evolutionary connection between animal expression and human language. In the January 12, 2010, issue of *The New York Times'* Science Section, Nicholas Wade seemed to put to rest any connection between the vocative case in human language and seemingly comparable animal expressions: "But with a few exceptions, teaching animals human language has proved to be a dead end….Vervet monkeys were found in 1980 to have specific alarm calls for their most serious predators….Their alarm calls seem less like words and more like a person saying "Ouch!"—a vocal representation of an inner mental state rather than an attempt to convey exact information." What's missing, according to Dr. Zuberbuehler, a more optimistic scientist quoted by Wade, seems to be a social factor—an "intention to communicate" which human children have, but not other primates. "At some point in human evolution," Zuberbuehler notes, "people developed the desire to share thoughts. Luckily for them, all the underlying systems of perceiving and producing sounds were already in place as part of the primate heritage, and natural selection had only to find a way of connecting these systems with thought." But how?

But does Zuberbuehler's reference to "luck" *suggest a possible connection between Chaos Theory and emergent evolution. Was Darwin's greatest contribution his attempt to advance biology beyond the Greek and Newtonian celebration of "order"?* "Today, we don't regard the role of chance in nature as malicious, merely as blind. A chance event may act constructively, as in biological evolution…" (Davies, p. 213.) It might also impact on the evolution of our manifold languages.

Harvard's animal communication expert, Dr. Marc D. Hauser turns inward—to the neural systems that humans possess: "For whatever reason, maybe accident, our brains are promiscuous in a way that animal brains are not, and once this emerges, it's explosive." And though Dr. Zuberbuehler seems to sense that many "seemingly meaningless sounds in the forest…convey information in ways perhaps akin to language," Dr. Hauser is less convinced: "I'm becoming pessimistic….I conclude that the methods we have are just impoverished and won't get us to where we want to be as far as demonstrating anything like semantics or syntax." (Wade, D3, D4.)

Looking at this matter from the side of social evolution, it seems obvious that all linguistic declensions and declensional systems and their prepositional compatriots and article paradigms, including the strong vocative declension, are keyed in to social systems in order to give social mobility to noun substantives. Though Darwin was sensitive to the issue of language as a social phenomenon, it is now being given ever greater consideration.

Given Darwin's work on The Emotions, there would seem to be three matters that need continuing philosophic examination:

1. How does "the theory of expression confirm to a limited extent the conclusion that man is derived from some lower animal form"? [Key references: T. Givon & B.F. Malle (eds.), *The Evolution of Language out of Pre-language.* R. Burling, *The Talking Ape: How Language Evolved: Studies in the Evolution of Language.* C. Hayes, "Non-human Language."]
2. In what way(s) does the evolution of "the language of emotion" (that is, transition from "gestures" to "emotion") contribute to the welfare of man and animals? Darwin's "language of emotion" needs to be examined in the light of the "cognitivism/noncognitivism" controversy. [Key references: H. Spencer, *Principles of Psychology*. Also, Spencer, *Essays.* 2nd Series 1863. Knight, M. Studdert-Kennedy, & J.R. Hurford, *The Evolutionary Emergence of Language: Social Function and the Origins of Linguistic Form.* Petra Campe, *Case Semantic Roles and Grammatical Relations.*]
3. What, precisely, can philosophy contribute to this discussion? If it is the case that the evolution of language is affected by the "chaotic rhythms of life" (the Tower of Babel syndrome), then such concepts as Davidson's "Radical Interpretation" and "Principle of Charity" will need to come into play. Does Davidson's philosophy of language commit him to some version of a philosophy of evolution? Furthermore, an intense phenomenological analysis of "feeling" and "emotion" should throw light on the relationship between emotion, cognition, and grammatical structure. [Key references: Bernd Heine, *The Genesis of Grammar: A Reconstruction.* Simon Evnine, *Donald Davidson*.]

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