

The Metonymy Economy:

Poetics and Cognitive-Affective Social Sciences by Adam Wadley

Adopting the theoretical perspective of cognitive-affective science, this paper seeks to foster the integration of inspired poetics with rigorous quantitative analysis in addressing social problems of great importance with a decidedly poetic sensibility. A poetic alliance obtains between Percy Shelley's poetic theory in *A Defense of Poetry* and Jean Baudrillard's crucial gesture toward 'poetic singularity' (Baudrillard 2010: 77). Both Shelley and Baudrillard expound ineffable utopian projects which cast poesis in the supreme role of proper steering mechanism for individual and collective practices. Baudrillard's theory of metonymy evidences the salience of poetry in his theory, brought into conversation with cognitive linguistic theories of generative semantics. By framing this discussion of the common poetic project of Shelley and Baudrillard within the theoretical framework of cognitive-affective science, this work contributes to a trans-disciplinary approach to conflict resolution and political theory, inspired by the aspirations of poets and informed by the latest research into the cognitive and affective sciences.

The kernel of this project is the perceptive seeking-out of relevant cognitive-affective paradigm shifts and aggressive adaptation to them, and so cognitive-affective science is a logical buttress to social theory and practice. Now, the general tendency to optimize what had been considered a reasonably broad relevance frame has generated a figure-ground reversal, such that the ground of unimaginative development, the biosphere, has become a crucial figure in the human drama as it begins to fail due to human activities. Cognitive-affective science is a major theoretical framework through which we can begin to parse the myriad subproblems which constitute the broad problematic of humanity's relationship with the biosphere, and social environment, in the 21st century. Its importance will be characterized here on three bases, noting cognitive-affective

science's efficacy in: formalizing the cognitive-affective theories laid down by Romantics like Shelley and Baudrillard; providing economics in general with theory which enables the making of exogenous variables endogenous to an economic theory grounded in transdisciplinary science; allowing for the appreciation for the deep homologies present between urgent areas of research in social cognition and environmental economics; and facilitating the categorization, operationalization, and refinement of economic strategies which were previously disunified such as cognitive-affective protectionism, broadly applicable in our time, when the cognitive-affective economy as a whole is one large infant industry.

Section One: Shelley's "Poetry," or Cognitive-Affective Science

Poetry is indeed something divine. It is at once the centre [sic] and circumference of knowledge; it is that which comprehends all science, and that to which all science must be referred. It is at the same time the root and blossom of all other systems of thought: it is that from which all spring, and that which adorns all; and that which, if blighted, denies the fruit and the seed, and withholds from the barren world the nourishment and the succession of the scions of the tree of life. (Shelley 360)

Poetry and science sometimes seem worlds apart, yet are intuitively related in the idea of an 'elegant' theory, a scientific expression, like ' $E = MC^2$,' which is so simple and powerful as to evoke the air of poetry. Percy Shelley, in raising poetry to a proper noun ('Poetry'), posited an arch-discipline we might today call cognitive-affective science. Shelley's Romantic poetry, and Baudrillard's fatal theory, are both reactions against the "faculty of calculation" (Shelley 360), which consistently dominated affective sensibility throughout their times. In this, they anticipate the "affective turn" which we see currently dominant in marketing, yet spreading quickly as human social cognition and affective processing are systemized. In criticizing those aspects of Marx which naively reproduced the 18th century rationalism which so bedeviled Shelley, Baudrillard

crafted a project in line with Shelley's model of the epic poet. Such a poet, per Shelley, produces work which bears "a defined and intelligible relation to the knowledge, and sentiment, and religion, and political conditions of the age in which he lived, and of the ages which followed it, developing itself in correspondence with their development [sic]" (Shelley 357). Baudrillard's theory of the drive into metonymy will have far-reaching implications for economic, religious, and linguistic theory in the 21st century, I claim, and for this and other crucial insights, Baudrillard stands as a Shelleyan epic poet, and equally a cognitive-affective scientist (if an informal one).

In his description of the "trans" phenomenon, in other words the implosion of discourses into one discursive field, itself unstable, Baudrillard fit the mold which Shelley lays out for the poet. Shelley's prototypical poet perceives never-before-apprehended pleasurable or utilizable "relations of things"—novel patterns of causality and/or interdependence in the world. The poet is then to fashion memorable words and phrases, and produce artworks to express and taxonomize the newly perceived gestalts, rendering them assimilable into common knowledge. What Baudrillard captures in terms like 'implosion' and 'transpolitics' is the growing sense that there is no possible delimiting of domains. We can express this in the idea that every name, every sign, is a metonym for every other. The salience of this insight is that it reveals that definition in general is a pseudo-task; labels never last forever, but are merely stepping stones on the way to the next set of terms.

The example of a "paradigm shift" is just one neologism created by a scientist to capture a newly observed kind of pattern. Once scientists stop neglecting affective concerns, and when research is free from corrupting influence, they cannot help but move into the realm of poetics. After thought and feeling are thusly organized by the epic poet/scientist, communities gather around the joy of the new understanding, thus "reduplicating" the poet's pleasure (346-7). Epic

poets are those who have delivered concepts or images that decisively restructure human society. Their inspired verses are highly influential in the form and content of speech, so that they contribute to one great “cyclic poem” (Shelley 355) which resounds up and down the ages.

The major danger of such memorable utterances (whether famous poems or scientific theories) is their making possible unthinking repetition which is constitutive of deleterious social norms which then tenaciously reproduce themselves. The “integral thoughts” the epic poet delivers to listeners, expressing and taxonomizing “relations of things,” undergo a process of indifferenciation and equivocation, and come to be “signs for portions or classes of thoughts” (Shelley 347). Such semiotic degeneration constitutes the undoing of the epic poet’s work and its mobilization against itself, in that the clichés, dogmas, habits, and customary restrictions left over—expressions which are gravely uninspired and absent continued sagacious influence—seemingly must finally produce merely reiterative discursive systems and only the illusion of linguistic control. Scientific discoveries with the intent of pursuing peace, meanwhile, have been used for war, with dynamite supplying one notable example. Cliché and repressive dogma emerge as major threats to the poetic and scientific lineage, and, moreover, human development and survival in general, once technical means generated by the long-repeated words of poets begin to run amok. Per Shelley, “[the] cultivation of those sciences which have enlarged the limits of the empire of man over the external world, has, for want of the poetical faculty, proportionally circumscribed those of the internal world; and man, having enslaved the elements, remains himself a slave” (Shelley 359). Humanity, it seems, must from now on confront its own tools first of all as a threat to its very flourishing, both biological and symbolic. The endgame Shelley describes for this process anticipates even the supposedly unimaginable Holocaust in his vision of the omnicide of out-of-control social algorithms, or ‘social corruption:’

the end of social corruption is to destroy all sensibility to pleasure; and therefore it is corruption. It begins at the imagination and the intellect as at the core, and distributes itself thence as a paralyzing venom, through the affections into the very appetites, until all become a torpid mass in which sense hardly survives. At the approach of such a period, Poetry ever addresses itself to those faculties which are the last to be destroyed [...]. Poetry ever communicates all the pleasure which men are capable of receiving: it is ever still the light of life; the source of whatever of beautiful, or generous, or true can have place in an evil time. (Shelley 354)

Both Baudrillard and Shelley see intrusive bureaucratic apparatuses as expressions of the overproduction and dissemination of uninspired aesthetic-ethical material, which is by definition derivative. Within science, we can see this as research which is concentrated too much around certain areas due to myopic considerations of research parameters.

The poetic solution offered by Baudrillard and Shelley to conceptual ossification is to make “familiar objects be as if they were not familiar” (Shelley 351), in order to destabilize entrenched and auto-regenerative derivative discourses. This sublimation leads to a new condensation, the poetic capturing of “the before unapprehended relations of things and perpetuat[ing] their apprehension” (Shelley 348). The manipulation of language ties today’s hypermodern practices directly to behaviors of antiquity and even earlier ages. So much is averred by Keith Oatley in “Writingandreading,” where he writes of modern computer simulations that they “are modern instances. For several thousand years, something comparable has been accomplished in human minds” (Oatley 166). The lens of cognitive-affective poetics allows us to see that far from being overwhelmed and in despair at the prospect of an increasingly artificial, simulated world, we ought to recognize that our cognitive-affective universe has long been artificial, and simulated through poetry. Appreciating this point allows us to process the techno-future anthropologically, and not merely with overwhelming terror at the state of our apparatuses. Social actors are to be understood

as attempted poets, whose expressions, although estranged and at times terrifying, are to be sorted amongst “the episodes of the cyclic poem written by Time upon the memories of men” (Shelley 355). The tragedy of society, then, is that there is so much poetic potential which is wasted, since people are allowed to simply suffer and die instead of being able to cultivate their creative faculties. We see here the poetic perspective concentrating heavily in skepticism about prevailing standards of valuation. Nietzsche’s “Transvaluation of all Values” was perhaps the most self-conscious attempt, but Shelley has the same idea, writing of “two kinds of pleasure, one durable, universal, and permanent; the other transitory and particular“ (Shelley 358). For Shelley, most things typically called valuable, like wealth and security, are second-order pleasures, recalling Jesus’ admonition to lay one’s treasures in the kingdom of heaven within.

This fundamental break with established forms of valuation also characterizes Baudrillard’s conception of symbolic exchange, which he sees as “opposed, as a whole” to political economy, the rationalist tradition Shelley also sought to affectively penetrate (Baudrillard 1981: 125). In this, Shelley and Baudrillard resonate in their poetic critique of rationalist valuation standards. Baudrillard orientally rejects ‘use value; as conceptualized within the mainstream Marxism. In his book *For a Critique of the Political Economy of the Sign*, Baudrillard posits as his first essential task “the extension of the critique of political economy to a *radical critique of use value*, in order to reduce the idealist anthropology which it still subtends” (Baudrillard 1981: 128-9). Shelley also posits poetry as a value qualitatively higher than other concerns, because it is alone capable of parsing and overcoming the dominant axiological schemata which find their grounding in reductive epistemological heuristics. An example of this higher-order intervention made possible by poetics is Baudrillard’s assertion of the primacy of metonymy.

In *The Transparency of Evil*, Baudrillard introduces his theory of 'trans' as naming the phenomenon of indeterminacy in "all disciplines as they lose their specificity and partake of a process of confusion and contagion" (Baudrillard 2009: 7). Notably, this manifest interpenetration and mutual interdependence among all fields leads to significant consequences for poetry, namely that "[the] possibility of metaphor is disappearing in every sphere" (ibid). The disciplines, designed to specialize in one function of the grand rationalist project of perfecting knowledge,

all converge in a transversal and universal process wherein no discourse may have a metaphorical relationship to another, because for there to be metaphor, differential fields and distinct objects must exist. But they cannot exist where contamination is possible between any discipline and any other. (Baudrillard 2009: 7-8)

Here we have the intersection of technological development with the realm of human speech-acts, wherein our development of media and social technologies at a rate far beyond our ability to mindfully organize have left us without any well-defined boundaries of knowledge. The new frontier of poetics, accordingly, is metonymy. Baudrillard: "Total metonymy, then - viral by definition (or lack of definition). [...] Today, metonymy - replacing the whole as well as the components, and occasioning a general commutability of terms - has built its house upon the disillusion of metaphor" (Baudrillard 2009: 8). With regard to this question of discrete conceptual domains, we can recall Baudrillard's critique of the concept of the number of sexes in the book *Symbolic Exchange and Death*:

The question of the 'total' is absurd here (whereas we can logically ask 'why not six fingers on each hand?'). It is absurd because sexualization is precisely the partition that cuts across every subject, making the 'one' or 'several' unthinkable. The 'two' also becomes unthinkable, however, since the 'two' is already a total

(besides, the above dialogue operates on the figure of the 'two,') (Baudrillard 1993: 118).

We can write something similar about conceptual domains, which cut across every subject since each 'individual' can be interpreted according to several heuristic frameworks, the choice among which must always be somewhat arbitrary. As such, it is absurd to speak of *numbers* of conceptual domains. Metaphor fails to be grounded, since we cannot establish two conceptual domains outside of each other. Metonymy, understood as the relation of two subdomains within the same parent domain, must itself become uncertain (as all else) in the realization of the ineffable paradigm.

Gibbs (2003) brings to light a similar view of conceptual metaphors and domains, in that they are posited to be task-specific, hence only meaningful or even existent given a specific situation embodied by specific (types of) cognitive-affective agents. He writes:

conceptual metaphors may not pre-exist in the sense of continually structuring specific conceptual domains. But conceptual metaphors may be used to access different knowledge on different occasions as people immediately conceptualize some abstract target domain given a particular task. Conceptual metaphors may also simply emerge as the product of conceptualizing processes, rather than serve as the underlying cause of these processes (Gibbs 33).

Gibbs outlines here what may be termed conceptual nominalism, holding that conceptual domains, and hence conceptual metaphors, exist only as ad-hoc practical instruments whose truth value is undecidable and fundamentally irrelevant. Ultimately, we have here a theory of speech which emphasizes the usefulness of language in completing a task, not the idea that the language used 'means something' in an absolute sense. This is to say that there are no objective conceptual domains, and that all are used merely to advance given speakers' perpetually ill-defined plans as meta-cognitively conceived. Baudrillard's conception of metonymy is relevant for our sciences, which are converging on transdisciplinary and totalizing models like a generalized artificial

intelligence. Such a processor has only one, ever ill-defined conceptual domain. As we craft transdisciplinary social theory and poetic science, we will follow ever more closely the model of metonymy, relating one subdomain of our unified cognitive-affective perspective to another, with the ever-present joy at the electric fuzziness of concepts, the magic of the social.

Section Two: Social Sphere, Biosphere

David Hume, early in his *Treatise of Human Nature*, introduced the notion of “the constant revolution of our ideas” (Hume 13) to refer to the constant flux of mental states in the individual mind. This figure of speech has a certain poetic economy in explicating the importance of cognitive-affective approaches for the sciences in general, which comprise a higher-order ‘constant revolution’ in thought since scientific work by definition cultivates paradigm shifts. Paradigm shifts, cognitive and/or affective, are constantly taking place at all scales in the worldscape of the global biospheric economy, comprising events which create, change, and end worlds, and which are mostly unknown at the time of their occurrence to individuals not immediately experiencing them. In confronting the task of initiating sweeping and beneficial overhaul in social-technological behavior, cognitive-affective science can help economists break into the deep structures of decision-making, which have historically been reduced to blanket assumptions of dubious merit, such as *homo economicus*. Factors bracketed out on the basis of the technical infeasibility of their study can now be returned to, re-evaluating the prospects for accounting for them theoretically, their relevance for given tasks, and the scientific integrity of previous research. Decisive moments of change have been narrowly appreciated in the past, since it took time for the decisive innovation to make actual the potential for change its advent signifies. Paradigm shifts fundamentally reorient cognitive-affective personality systems, and their processing creates, transforms, and dissolves cognitive-affective communities by interfacing with

their structural logics and affects. Due to paradigm shifts present in the socio-ecological environment, individuals and groups are susceptible to influence by outside forces, revealing the inadequacy and eventual poverty of tradition which is denied access to world-class cognitive-affective resources, or worse, destroyed by a heartless higher-order economic system (colonization, genocide). A major sense of equity concerns the need to provide all perspectives with the optimal cognitive-affective environment to encourage human flourishing (and economic productivity).

Cognitive-affective science is able to take many factors which economists treat as exogenous and develop economic theories in which they are internalized as endogenous variables. For example, Gallup and Nguyen show that life expectancy correlates with low child mortality, which implies “healthy cognitive development” which “makes children better able to succeed in building their human capital through education, as well as making them more productive throughout their working lives” (Gallup 19). By seeing that we are entering a thoroughly cognitive-affective economic environment, we can generalize that cognitive-affective development is always ongoing, and that the most productive workers will be those who are able to adapt to changing working and social conditions. Cognitive-affective impairment is an enormous drag on the world economy, since it by definition prevents the optimal formation of human capital. As Gallup and Nguyen write, “since we assume that human capital affects the absorption of new technology, cognitive impairment reduces growth both in and out of equilibrium” (Gallup 19). In a time when advanced economies are looking for sources of growth any- and everywhere, it is imperative to see how much our economy relies on cognitive-affective homogenization, and how much economic productivity and growth remains to be unlocked through new economic sectors: the

next-level service economy; generalized cultural anthropology and artmaking; a new education system meant to serve the whole human population; and so on.

The relevance of cultural inquiry, as part of a cognitive-affective turn, for economics is made clear by research which has “underlined the importance of cultural dimensions to how societies perceive, respond and adapt to climate-related risks. Adaptive behaviors are the derivatives and embodiments of climate-related risk perceptions that include the lived aspects of culture and sense of place” (Chiang and Chiang 132). Given that “actions are always initiated by risk perceptions” (ibid), economic models of decision-making are remiss if they are not constructed from a culturally fluent perspective, since risk perception is not neatly determined by individual interests, but rather is mediated by the cultural constructions central to the cognitive-affective personality system of a given individual. In other words,

cultural values are ideological concepts acquired through the influence of the environments in which the local residents reside. They regulate and guide individual behaviors and serve as the criteria for taking an action, helping individuals to develop their ultimate preferred behavioral model or lifestyle (Chiang and Chiang 132).

The broad-spectrum proficiency, or cognitive-affective mastery, required to engage in this work is somewhat akin to what is known as ‘sagacity’ in folk wisdom, and is key in crafting theory equal to the present challenges. Through social cognition which draws on these domains and more, we can introduce regulatory measures to achieve a higher order of wisdom in our collective manners (in a firm, for example) than can be reasonably expected for individuals to achieve. Historically, “imaginings of the future are located in their social, economic and political contexts” (Potts 102), hence imaginings adequate to transdisciplinary problems must themselves be transdisciplinary to the utmost in scope and depth. Research projects, cognitive-affective protectionism and the

implementation of paradigmatic policies, informed by cognitive cultural theory and cognitive-affective science, are example of tools possible only through such socially metacognitive-affective behaviors. One aspect of this project is finding out what drives culturally grounded risk perception and how that understanding can be leveraged to build social legitimacy for sweeping and restricting policy measures.

Cognitive-Affective science gives us the vocabulary to express the true basis of economic functionality, which of course lies in the relationships of human beings to each other and to natural resources which allow for survival and flourishing. On a deeper level, economic choice relies on the production and consumption, as it were, of cognitive-affective states, states of being which comprise standards of pleasure, success, wealth, and status, be they idiosyncratic or conformist. In short, cognitive-affective science can help economists develop better theories of valuation, such that standards of valuation can be devised which are agreeable to individuals and sub-groups, yet also allow for the reasonable expectation of their continued (or coming) decent survival. Intervention in such highly influential fields as neuromarketing and consumer nudging will be more cognitively-affectively profitable if it is grounded in such a culturally informed perspective. Overcoming dire and time-sensitive challenges amounts to the challenge of changing society and our economy fast enough, and in the proper ways, to avert catastrophe. For it is clear that our economy will soon grow to rely on resources which are now unknown, marginal, or impractical, yet that exist all around us already. As such, a major application of cognitive-affective economics is in the field of seeking out undervalued forms of capital within the dominant economic-cultural value system.

There is no matter more widely or pressingly relevant than the uncertain future of the world economy—and each human's aspirations as part of it—given the ongoing and acceleration

disruption of the biospheric support system, defined by Cairns as “natural capital and the ecosystem services it provides” (Cairns 487). The work of crafting a positive outcome in the face of environmental degradation—and the ever-escalating conflicts presumed to follow due to resource scarcity and habitat destruction—remains in its infancy, though the sense of urgency is growing. A paradigm shift must occur, or is already occurring; in other words, the “urgent need to take action to prevent disastrous scenarios is increasingly recognized” (Rezny 299). However, the cognitive-affective implications of biospheric support system disruption are undervalued. Per Hayes: “this reflects the global discourse, where, in comparison to physical health, mental health in general has been neglected” (Hayes et al. 3). As such, the case remains to be made that making decisive and large scale efforts to protect biospheric integrity, whether conservational or of the order of artificial replacement of biospheric support functions, has not only long-term utility but major short-term value in reducing cognitive distress and maldevelopment in the present.

To those who consider environmental economics, the position that “the health and integrity of the biospheric life support system is central to the well being of humankind” (Cairns 487) is well known. Yet this perspective overlooks the key insight that commercial adaptation has always consisted in finding novel, thus necessarily artificial, means to establish new systems of socius-environment homeostasis, or economies. We cannot lose our nerve at this point, when our technical means are at their most advanced, and think that we must find a way to recreate prior states of affairs, i.e. restore the biosphere support system to a previous state. Natural capital on Earth is destined to fall, yet artificial capital and human capital are set to soar, and further natural capital is available in the vicinity of Earth through the expansion of economic practice beyond the terrestrial realm (the extensive mineral, water, and other deposits of natural resources throughout the Sol system). As such, I disagree with Cairns again that “present preoccupation with economic

growth, even after a global financial meltdown, distracts from the main goal of finding the best ways to use scarce resources both to meet human needs and to preserve the integrity of the biospheric life support system” (Cairns 488). Sustainability must be understood as sustaining decent human life, the possibility of happiness, however defined, under rapidly changing economic, social, technological, and ecological conditions: decidedly *not*, that is, as the sustenance of states of affairs in the biosphere which were necessary before but which now might be replaced by artificial products of human economy. Environmental economics, in leading the charge in engineering humans’ new home on earth, lives up to the origins of economics as the discipline of managing a household (Leshem 226).

Contrary to many approaches, which conservatively focus on preserving something near the present level of homeostasis between human beings, as a species, and their environment, this study presumes that humans’ environments will increasingly be products of their economic systems. The transnational economy and the human biosphere will grow to be exactly the same thing (as is clear in the example of human settlement outside of Earth). In adapting to biosphere support system disruption, we ought to abandon the pursuit of a return to some mythic equilibrium for its own sake. As a species, humans have disrupted equilibrium at every turn, using spears, for example, to drive mass extinctions long before the present drama. We now stand at the beginning of the great disruption to which our ‘innocent’ species-wide tendencies have led us, and it remains to be seen whether any new stable paradigms will even emerge, or whether ceaseless and ever more rapid structural change is the basis for human (and post-human) history to come. The danger of tunnel-vision looms large over the sciences. Focusing on how to solve a certain problem when perhaps it needn’t be solved, or can be solved indirectly through a change in focus, can derail efforts substantially and waste precious resources. Such an approach helps us when it comes to

considering the economic implications of climate change. For example, when we speak of ‘sustainability,’ what is it that we seek to sustain? In the end, the primary focus for economists must be the sustained ability of society to produce goods and services in tolerable quantities and qualities for the decent survival of the human species. In this time, when the very survival of humanity is in question, we can’t get too attached to things which have until now been constants in human economies. Can we really hope to ‘sustain’ the ability of humans to rely on rain and springs for water? It seems more likely that our advancing technological means will grow to provide water synthetically (i.e., outside the given ‘biospheric support system’) to each and every person on Earth at reasonable cost, and that in general the tendency will be toward and more and more mechanized, artificial habit for humans.

The cognitive-affective revolution allows us to think more deeply into the century’s problematic by questioning the basic assumptions of most environmental economics. By embracing, rather than fighting against, the idea that humanity is destroying the current conditions, environmental economics can help shepherd the process which will see all humans live in substantially artificial environments by the end of the century. By steadfastly assuming that we have to save a world like the one we live in, we miss the point that we have instead assembled the tools to build a truly new world, one which will be required to survive the destruction by our economy of its own material basis. So, we will have to make a new material basis, and this is only possible with the acceleration of research and technological evolution made possible by eliminating poverty and generalizing education. In short, the cognitive-affective revolution in economics asks us to recognize that the major growth potential in the coming period is in human capital, and that the basic strategy consists in generalizing behaviors of cognitive and affective education which fuse the business of everyday life with the project of developing and

implementing policies which promote flourishing. The basic grand conceptualization of the task is the automation of the biosphere. In the course of development, humanity has decisively destabilized the metabolic basis of our activity. Such crises in the past have always been resolved through the adoption of higher-order solutions. For example, when nitrogen in the soil was running out in the early 20th century, the problem was solved by fixing nitrogen from the air, an entirely novel sort of solution. Similarly, the problem of the environment will not be solved by returning somehow to the established homeostasis of the past hundreds of thousands of years. Instead, humans will engineer an entirely new form of homeostasis, one focused on retaining the desirable aspects of humanity (e.g. embodied pleasure, imagination, play with others) while accommodating the seemingly unending advance of technological progress.

Section 3: Cognitive-Affective Protectionism

From a Cognitive-Affective perspective, it is clear that the deciding industries and knowledge bases of the 21st century are not yet in existence, since so much growth remains to be achieved when it comes to raising the cognitive-affective standard of living (measured in indicators of logical reasoning, critical thinking, transcultural literacy, and emotional well-being among the public). As such, the cognitive-affective economy, broadly speaking, is really an industry in its infancy, bringing infant industry theory and protectionism into play as economic theories oriented toward fostering the development of new industries when they are not yet internationally competitive, or rather, viable. While cognitive-affective science is certainly already being used to craft policy, it remains at a subtextual level with respect to the awareness of the broader public, a state of affairs which is particularly detrimental to the positive effects of cognitive-affective development, since raising such development in the individual awareness must lead to meta-cognition and -affectation on some level. This would constitute success of the cognitive-affective

paradigm, since it aims to spur cognitive-affective development, not to increase acceptance of itself as a theory.

The cognitive-affective revolution in economics may be started with the at-cost dissemination of materials which raise the ambient level of cognitive and affective performance among the public, constituting intentional positive externalities for the cognitive-affective cultural-economic *environment*. As example, such materials may be aesthetic creations, pieces of writing, able to be shared easily, which give people the tools to begin honing meta-cognitive and -affective skills. These should be designed not to force them into any given way of thinking (cognitive-affective content), but rather to allow consumers to experience themselves on an intrinsically motivated and evolutionarily transformative cognitive-affective journey. This initiative will make use of the extensive databases which exist on the consuming public and be intended to optimize the cognitive-affective state of each individual.

Sadly, current economic thought is locked in a cargo-cult practice of worshipping the dominant icons of the previous century, including the pursuit of transient luxury and blindness to the situation of personal affairs within a broader social, economic, ecological, and cosmological frame. As noted by Young et al.,

Existing institutions and regimes approach the environment basically as a source of commodities exchangeable for money, and not as a collection of valuable functioning systems. The cause of this is inadequate education, based on inadequate understanding, stemming from a woefully incomplete knowledge base. As a result, we are cashing in goods that are finite in quantity, slow or impossible to replace, and perform biospheric functions that support life. The destruction of such goods will diminish our lives, and if it does not eventually extinguish them, it certainly may extinguish the lives of our descendants. (Young 150)

It is left to cognitive-affective science to aggressively shift the discourse on valuation from monetary terms, which reinforce the myriad cognitive biases which led to the thoughtless destruction of the biosphere in the first place, to cognitive-affective terms, so that the true goal of cultivating pleasurable mental states and facilitating cognitive-affective development can come into view. Each of these goals implies the implementation of cognitive-affective protectionism on every scale, as we cultivate our own individual idiosyncratic industries (our own economic behaviors) in concert with the rising chorus of cognitive-affective innovation set to sweep the globe. By seeing the enormous economic opportunity presented by cognitive-affective economics, the massive ecological problems we face shrink to an imposing, but imaginably conquerable size. Economics as a glorified version of home-building can only truly succeed when “the ends of economic analysis [are] open to an ethical discussion and [...] economic rationality [is] defined in terms of how best to approach the goals that emerge from an ethical framework” (Leshem 236).

Conclusion

There is a growing sense that either an apocalypse or a new golden age is coming. The means to achieve the artificialization of biosphere support system components disrupted by human economy activity may exist, but unlocking and putting them into place is no small task. Accelerating the pace of cognitive-affective paradigm shifts and disseminating their implications throughout the economy will require raising the productivity of existing workers within science, expanding the workforce of scientific specialists to meet the demand for cognitive-affective labor, and making it possible to overcome, within the broader public as well as within academic disciplines, of bio-cultural tendencies to double-down on established practices and heuristics. Yet only by achieving these tasks can we hope to help conceive and implement the policies which will

lead to the continued survival and flourishing of the human species, and such for ourselves as individuals.

This paper has endeavored to show that the theoretical perspective of cognitive-affective science, meaning the honing of cognition through the ruthless questioning of premises, and the development of affective sensibility through socio-cultural practice, has much to offer humanity as it transitions to an ever more mechanized and modelled world economy. Once the rationalist bias against affective sensibility is set aside, the field will truly be open for revolutionary and wonder-producing research. Humans have definitively changed Earth and must now take direct responsibility for the survivability of the biosphere. Embracing this challenge, and setting aside the idea of returning to the environmental equilibrium of five centuries ago, is central if we are to think creatively enough to apprehend the substantial economic opportunities which lie ahead. This is equally true for our cognitive-affective homeostasis: we won't thrive by pursuing the reinvigoration of last century's concepts, but by finding the new ways of speaking pursuant to our own time. Cognitive-affective economics emphasizes human development, or the development of human capital, as *the* major goal of economic meta-theory, and hence looks to all fields, from artificial intelligence to cultural anthropology and poetics, to find the artful economic means which will allow for the ever faster development technology and its mindful use. Core to this mega-project is the strategy of cognitive-affective protectionism, which seeks to craft a 'safe space' for novel cognitive-affective schemata to develop, before they can be respectfully challenged by and combined with other novel schemata. The possibilities are endless, once we realize that cultivating cognitive-affective states of all kinds, not merely ones we 'agree with,' or which profit us monetarily, is in our direct personal interest, since we never know out of what sector the next major innovation or paradigm shift might emerge. As such, cognitive-affective economics must seek to

nudge the broader public into a higher valuation of mental, emotional, and cultural development, so that accelerating returns can begin to appear. In seeking to drive intrinsic motivation in a varied public, cognitive-affective science must be infinitely adaptive, infinitely inquisitive, infinitely respectful of the unknown sense of different modes of being. In this, it lives up to the poetic sense of Baudrillard's radical metonymy. Everyone is overlooked; everyone should be more catered to, consoled for unappreciated wounds, nurtured in their cognitive-affective development for the good of all. So much was averred by Hayes et al., in writing that "Transformative action—where inequities are addressed, active hope is demonstrated, and communities are mobilized—is the defining opportunity of the twenty-first century to address the climate change impacts on mental health" (Hayes et al. 10). Such transformative action will be invaluable, I hope to have indicated, by the pursuit of cognitive-affective economics.

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