TOWARD A SEMIOTIC THEORY OF CHOICE AND OF LEARNING

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ABSTRACT. In this essay, Andrew Stables and Stephen Gough explore some of the implications for educational policy and practice of a view of living (and, therefore, of learning) as semiotic engagement. Such a view, Stables and Gough argue, has the potential to displace or circumvent essentially Cartesian models currently dominant within learning theory (cognitivism and responses to it) and within neoclassical economics (rational choice and responses to it). It thus enables synergies between theories of learning and of economic behavior, allowing for greater consistency in thinking about (but not necessarily prescribing for) both educational policy and provision, on the one hand, and curriculum and pedagogy, on the other. In addition, the authors claim that giving semiotics a foundational role in educational thinking provides a basis for the broader development of liberal political thought within a postmodern cultural context.

In this essay, we begin to speculate on the consequences of regarding semiotic engagement (defined as how we respond to signs and/or signals, as will be discussed subsequently) as primal, and thus as foundational to our understanding of educational processes and policies.¹ Our approach represents a step beyond existing work that tends to study "discourse" as the expression of underlying social-structural realities.² Our approach posits not only language but all signifying systems as elements within and across semiotically functioning organisms rather than being mere representations, means of expression, or "tools." Further, we adopt a broad and inclusive view of semiotic systems — a move that requires conflating the concepts of "sign" and "signal" in the belief that this distinction is emblematic of the discredited mind-body dualism: the assumption that "things with minds" send and receive signs, while "mindless things" send and receive signals. The reconceptualization of signs and signals as "sign(al)s" circumvents the mind-body and (somewhat related) realism-relativism dualisms that continue to frame, among other things, mainstream thinking about learning, choice, and language.

Theories of choice and of learning generally belong to different literatures, the former principally to economics and the latter to psychology and education. Each concept ("choice" and "learning") is key to our understanding of personal development and social change: particularly in liberal societies, we are inclined to see our pasts and our futures as determined by our choices and what we have learned. Theories of learning and choice can also be seen as symptomatic of mind-body dualism, insofar as they assume separation of a thinking, autonomous (or quasi-autonomous), immaterial "self" — that uses language and other "means of

^{1.} A much fuller exploration of this can be found in Andrew Stables, *Living and Learning as Semiotic Engagement: A New Theory of Education* (Lewiston, New York, and Lampeter: Mellen Press, 2006).

^{2.} As in much of the current plethora of "sociocultural" approaches and in critical discourse analysis. See, for example, Norman Fairclough, *Critical Discourse Analysis* (London: Longman, 1995).

expression" — from material, unthinking, and mechanical nature. This "self" is imbued with certain empirically unidentifiable characteristics, including freedom of the will (manifested as choice) and access to transcendent rationality (via the power to learn, in the sense of coming to understand). Such a scheme underpins both neoclassical economics, which attempts to explain market forces as rational, and cognitive psychology, which imbues the learner with an innate capacity to make sense of the world. Both sets of theories affect education: the former mainly with respect to policy and the latter to curriculum and pedagogy.

Each of the theoretical positions associated with these fields also has its converse. If markets are not rational, then they are irrational; if learning is not "cognitive," then it is "behavioral," a matter of trained and immediate response to stimuli. From both these perspectives, people are construed as effectively "all matter," that is, lacking in "mind" and controlled merely by primitive drives. For mainstream economic theory, choices not derived from a conscious and consistent pursuit of wants are irrational. Behavioral learning theory after B.F. Skinner construes humans as "no better than animals." The hidden signifier, the repressed pole, "mind," casts a long shadow over such materialistic and instinctive explanations.

Some philosophers of education, most notably John Dewey, have sought to escape this mind-body dualism, ⁴ but its hold over the modern imagination is such that it continues to permeate theorizing across the human sciences, leaving assumptions so ingrained that they both mask and excuse distinctions among disciplines that, in some cases, can be unhelpful. Thus, for example, theories of choice and of learning are kept separate, though each deals with human and social becoming, change, and development: each, in short, attempts to explain what people will go on to do.

LIVING AS SEMIOTIC ENGAGEMENT

Semiosis offers an alternative starting point for considering issues of human development and decision making that does not divide mind from matter — but

^{3.} We appreciate that, here, we are using a post-Pavlovian, mid- to late-twentieth century working definition of behaviorism. In contrast, Watsonian behaviorism implied more than merely response to immediate external stimuli on a case-by-case basis, instead referring to something nearer the *semiosis* described in this essay — that is, the general habitual patterning of human behavior by externalities without recourse to cognition. Behaviorism first emerged in a largely liberal, as opposed to an authoritarian, intellectual *milieu*. This was the cultural environment in which John Dewey, for example, developed his learning theory.

^{4.} As, of course, have many *philosophers*, but with limited effect to date on mainstream thinking about education.

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only if the semiotic perspective is taken as foundational.⁵ In mainstream philosophy — in mainstream applied philosophy, at least, and in much work in the established field of semiotics — language (along with other forms of sign use) is generally assumed to play a dependent role in human affairs. This is to say that language expresses or represents the human condition, or acts as a vehicle for ideas, or a tool for thinking. Such a characterization assumes that somehow the independent, immaterial mind is using sound to carry out some predetermined purpose. The fully semiotic perspective employed here is much simpler: living is semiotic engagement. Sign(al)s are primal rather than representations of "what they stand for." That is, everything that everybody does can potentially be understood as response to signs or signals.⁶

This argument is based on the premise that we live by emitting and responding to signs and signals — in other words, by semiosis. Of course, if there is body and soul (mind and matter), then the difference between "signs" and "signals" is crucial. Mental, spiritual, conscious human beings — as uniquely gifted symbol users — communicate by means of signs, while other animals (even cells) unconsciously emit and respond to signals. To collapse the mind-matter duality is to treat signals as effectively synonymous with signs. We assume things to be what they mean to us, and this meaning (whether consciously articulated or not) determines our responses, including our observable actions. Thus we can validly make the claim that living is semiotic engagement. On this view, both sign and signal operate equally as prompts to action or response, sometimes within an articulated, self-conscious context, such as where language is implicated, and sometimes unthinkingly. This view does not attempt to draw an experiential distinction between "what things are" and "what things mean to us."

^{5.} The following definition of semiosis suits the purposes of this essay pretty well, given some latitude in accepting the concept of "free energy": "Semiosis refers to the generation and usage of signs. What is a sign? A sign is the means by which free energy is transformed by codification into constrained matter or information. Semiosis transforms energy from states of thermal and kinetic potentiality to spatio-temporal instantiations within multiple processes of codal constraints of organized relations. Codification is the formation of organized connections or relations with other forms of energy organization. Semiosis, then, is a relational process of codification by means of which networks of codification develop to transform energy into spatiotemporal instantiations of matter or information.

Semiosis has been trapped within a semiological or linguistic and psychological definition which sets up a simple dyadic descriptive framework of a >this = substituting for a >that = . This nominalist understanding sees reality as Cartesian inanimates, made up of things and their associated images, which must be related to each other by the mechanical intervention of an external agent, who carries out this act of the representational substitution of one image with another image. This is a degenerate semiosis which locates information within an agential consciousness and sets up a framework confined to isomorphic descriptions which are therefore incapable of developing emergent or novel properties." Edwina Taborsky, "Semiosis" (definition provided at the Semiosis, Evolution, Energy Web site), http://www.library.utoronto.ca/see/pages/semiosisdef.html.

^{6.} This is our point of departure from Dewey, who did not explain how (or even that) people would approach educationally desirable tasks from different perspectives. Arguably, this omission in Dewey helps to explain the numerous examples of "bad Deweyan practice" that have resulted from the view that educators can give students personally and socially useful things to do and expect pleasing outcomes, without sufficient attention (we would argue) to action as interpretation.

It is important to note that the semiotic perspective argued for here is not merely an application to educational theory of the work regularly done by semioticians. It is rather a theory of learning and choice grounded in a view of living as semiosis. This argument does not require that any extant typology of signs enjoy absolute legitimation. Fields such as media and film studies, for instance, tend to acknowledge wellestablished differences between different sorts of signs: namely, the iconic, indexical, and symbolic. On this view, derived from the seminal work of C.S. Peirce in the late nineteenth century, in most cases a photograph is an iconic sign, a cloud an indexical sign for rain, and a flag a symbolic sign for a country: the first directly represents what it signifies; the second "points to" something else that it does not directly signify; and the third exists in an arbitrary relation to that which it signifies.8 However, this Peircean typology depends on a strongly realist ontology: the implication throughout is that signs, loosely, "stand for things." This perspective predates the various manifestations of the linguistic turn in the twentieth century, from logical positivism to poststructuralism. Therefore, although it may continue to offer a useful framework for everyday analysis in semiotics as an established discipline, it does not illuminate the semiotic perspective adopted for our present purposes.

Nevertheless, the perspective proposed here does employ two key tenets of semiotics, as identified by Ferdinand de Saussure, who, along with Peirce, is widely regarded as one of the "fathers" of the modern discipline. The first tenet is that the relation between sign and signified (and ultimately referent) is arbitrary (in other words, that there is no clear reason why a dog should be called a dog). The second is that meaning is relational (that is, signs only make sense in the context of other signs within sign systems, so there could be no conception of a dog, for example, apart from other conceptions of animals).

Mainstream semiotics, however, is not concerned with regarding most aspects of living as "semiotic." It does not generally attempt to embrace the biological, for example, implicitly assuming that the physical world is driven by precognitive "signals" rather than cognitive "signs." Experientially, nevertheless, signs and signals amount to the same thing. They are prompts to action, irrespective of whether they are the direct "expressions" of some underlying "bit of reality." Ludwig Wittgenstein made the case fifty years ago that what we experience depends on our cultural interpretation of a sensation. On a metaphysical level,

^{7.} For example, the common distinction in the disciplinary practice and theory of semiotics between signs that are denotative and connotative (that is, between those that do and do not invite us to "read between the lines") is similarly problematized by a view of the sign(al) as both unit of meaning and prompt to action.

^{8.} Charles S. Peirce, Writings of Charles S. Peirce: A Chronological Edition (Bloomington, Indiana: Indiana University Press, 1982). See especially the introduction and numerous references in "On the Logic of Science: Harvard Lectures of 1865," 162ff.

^{9.} See, for example, Jonathan Culler, Saussure (London: Fontana, 1976).

^{10.} See, for example, the discussion of pain in Ludwig Wittgenstein's *Philosophical Investigations* (Oxford: Blackwell, 1967). In *Living and Learning as Semiotic Engagement*, Stables explores the potential for process philosophy (as expressed in the work of Alfred North Whitehead) in relation to this. See Alfred North Whitehead, *Process and Reality* (1929; repr. New York: The Free Press, 1978).

the realism-relativism debate, wherein there is a very significant difference between a sign (standing for something else) and a signal (the direct message coming from an entity), is of little relevance from a fully semiotic perspective focused on lived experience as semiosis. From this perspective, the stimulus is what matters, not its source, which remains a matter of conjecture.

In construing living as engagement with sign(al)s (signs and signals), a fully semiotic perspective thereby offers a foundational statement for a postfoundational age. It offers poststructuralism — often discussed more in terms of its conceptual and ethical nuisance value than as basis for education, let alone economic theory — as the theoretical grounding for new ways of understanding human action that value learning and choice while also denying them essence and accepting that their meanings are always deferred. It thus paves the way for developing liberal and hermeneutic traditions in the postmodern context.

A view of living as semiotic engagement needs no conception of the autonomous rational mind, nor does it reduce the rest of nature to brutality or machinery. Human change and human choices can be both valorized and explained without recourse to built-in rationality or freedom of the will. Superficially, this may sound like a simple restatement of the behaviorist and relativist objections to dominant paradigms in education, psychology, and economics, but it is not. Skinnerian behaviorism, for example, was clearly grounded in a view of nature as machine. It assumed simple, linear, one-dimensional cause and effect. As a learning theory it repelled and attracted in equal measure because it seemed so simple, construed people as so easily trainable. However, it suffered from the fallacy of single causation that bedevils the worst of modern science, including modern social science. A semiotic position does not imply that people are "moved on" by one sign(al) at a time¹¹ or that they can be manipulated into following the wills of others (at least, it suggests that this happens only to people at the margins, and under extreme and deprived conditions) — unless, of course, people perceive the new responses to be in their own interests. Notwithstanding the suffering they cause, the effects of totalitarian intervention are likely to prove temporary. This is evidenced, perhaps, by the mass return to Catholicism in Eastern bloc states, or the reversion to the name St. Petersburg by the inhabitants of Leningrad (a name not used since the days of their great-grandparents), or the subsequent mass rejections of the Nazis' Final Solution or the Maoist Cultural Revolution, notwithstanding that, in each of these cases, the intended changes were multifaceted and enforced by elaborate State Apparatuses, both Repressive and Ideological. 2 Social engineering on a grand scale — in other words, the attempted suppression of individual interpretation can cause great suffering, but it has very limited potential to recast the individual in the desired new shape.

^{11.} See also, for example, Daniel Dennett, *Consciousness Explained* (Harmondsworth: Penguin, 1992). Consciousness, according to Dennett, is connected to brain states, but it is not the result of singular responses to stimuli operating discretely.

^{12.} Louis Althusser, Lenin and Philosophy and Other Essays, trans. Ben Brewster (London: New Left Books, 1971).

A fully semiotic perspective construes all living as extended forms of reading and writing. Behaviorist and mechanistic approaches cannot account for differences in responses to any life event any more than they can predict responses to literary texts. Indeed, reading is one form of semiotic engagement that has already been widely addressed in educational scholarship. When we read, we make sense of texts through bringing a mass of existing patterns of response into contact with a unique set of signifiers, thereby making many complex and unpredictable associations. ¹³ There are, of course, commonalities among readers' responses to the same text, but commonality is not identity. ¹⁴ Each reading has both shared elements and distinctive characteristics; on this account, the aim of the literary critic (or even the bright school student) is to add to the stock of acceptable difference rather than to produce closure.

A further factor to consider is that meanings cannot be located spatiotemporally. One specific weakness of such approaches lies in their naïve conceptions of time. As Jacques Derrida kept pointing out, meaning is always deferred. 15 By the same token, there is no single point at which we learn or make a choice, or know exactly everything that our choices or learning amount to. Learning and choice do not so much "happen" as they are experienced as having happened. Consider the statements, "I learned something today" and "I have made a decision." Like many statements, these are in some sense performative and depend on context for meaning. 16 These particular assertions point toward something unexpected. Each acts as a preface to some new prescription for action or thought: the speaker will always go on to say, or imply, that something in his or her life will now change. In other words, the force of each statement is experiential and forward-looking. In neither case is it easy, useful, or even possible to locate the exact place and time in which the claimed insight occurred. Thus learning does not happen, but is always something that has happened: it is a retrospective judgment on certain experiences. Its meaning is deferred and is to some degree dependent on both our positions as individuals and the interpretive communities to which we belong.¹⁷ The fact that

^{13.} See, for example, Stanley Fish, *Is There a Text in This Class? The Authority of Interpretive Communities* (Cambridge: Harvard University Press, 1980); and Louise M. Rosenblatt, *Literature as Exploration* (New York: Modern Language Association of America, 1995).

^{14.} In *Is There a Text in This Class?* Fish talks of "interpretive communities" in relation to literary texts. Commentators who seek to employ a semiotic perspective in the service of communitarian objectives should note, however, that an interpretive community is never fixed.

^{15.} The Wikipedia site describes Derrida and the concept of différance as follows: "Différance is a pun in French, used in the context of deconstruction. The pun arises out of two meanings of the French word différer: "to defer" (in the sense of to postpone) and "to differ." In the thought of Jacques Derrida, différance refers roughly to the fact that words and signs can never summon forth what they mean (the "absent signified," which Derrida called the trace) but can only be defined or explained in other words. Therefore, words and signs are always different from what they mean, and the actual things they refer to are always postponed by human language," http://en.wikipedia.org/wiki/Diff%C3%A9rance (accessed April 29, 2006).

^{16.} John L. Austin, *How To Do Things with Words* (Oxford: Oxford University Press, 1975). Perhaps all statements are performative, though this was not Austin's original position.

^{17.} It would be possible to reverse the order here and refer to communities before individuals. Again, a more communitarian interpretation of semiotic learning theory than we offer might be possible, but such an interpretation would require acknowledging that these communities are never, ultimately, fluid or stable.

certain parts of the brain "light up" as particular neural connections are made does not prove that "learning" is "brain-based" (to use the current educational jargon) or has "happened" at an identifiable point.¹⁸

People, therefore, are not the trainable puppets of instrumental-technical rationality, though neither are they, in an Enlightenment sense, free rational agents. They are, rather, unique perceiving and responding agents, bundles of largely acceptable similarities and differences whose work, on this liberal-semiotic reading, is to create more acceptable differences as they interact with others (since survival depends on a degree of acceptance, and difference always carries an element of unacceptability). Life experience is thus rich, unpredictable, and unique (to some degree) to each individual, for it cannot be divorced from environmental response and social norms. Outcomes, or behavior, depend on the interaction of habit and context, and each has elements that are unique to the individual. Thus human actions are always the result of habit in interaction with context, where context and habit are never effectively separable.

From this premise, we will in the remainder of this essay speculate on the prospects for a "postmodern liberal" society. By this is implied a society of experientially free, ultimately unpredictable agents (since an element of predictability combined with an element of unpredictability results in unpredictability), who are, at the same time, neither rationally independent nor in conscious control of their destinies.

Freedom is here construed as experiential rather than objective. The "fiction of freedom" has much to recommend it, but one of the existential paradoxes of the postmodern liberal society is that its members are condemned to be free: to rationalize without absolute rationality and to exercise a freedom that cannot be shown to exist, yet through its exercise makes life worth living.

IMPLICATIONS FOR THEORIES OF LEARNING AND CHOICE

A view of living as semiotic engagement offers the basis for erecting theories of choice and of learning that do away with traditional notions of cognition, freedom of choice, and social determinism without lapsing into pure cultural relativism, for sign(al)s inevitably and always vary in power and intensity, have some endurance, and carry values. Indeed, all sign(al)s can be understood as resistances as well as impulses; thus, a stop sign both makes us do something (stop) and stop something (movement). Some sign(al)s clearly carry greater force than others.

^{18.} See, for example, Paul MacLean's Triune Brain Theory (as put forward in Paul D. MacLean, *The Triune Brain in Evolution: Role in Paleocerebral Functions* [New York: Springer, 1991]]. For a discussion of brain-based theories of teaching and learning, see Renate Numella Caine and Geoffrey Caine, *Making Connections: Teaching and the Human Brain* (Nashville, Tennessee: Incentive Publications, 1990). This school offers a strongly biological explanation of how learning occurs, prescribing measures for promoting learning that are culture- and interpretation-free. See also Dennett, who is neither a poststructuralist nor a mentalist but has drawn on the cognitive tradition to develop an explanation of how consciousness relates to content but is not merely a collection of content-responses in the brain.

^{19.} One might say conditioning, but this goes beyond the common use of the term in the behaviorist literature.

Therefore, given that people similarly carry sign(al) value, social power differentials are both inevitable and transient, having contextual authority without absolute legitimation. On this account, a healthy society might not be one that lacks outcome inequalities so much as one that is happy to see them change.²⁰

As with learning, choice can also be understood as simultaneously social and individual — and, thus, as ultimately unpredictable. For instance, the authors have chosen to work on this essay rather than, say, mark student assignments. On the one hand, many social factors can be understood as having influenced this decision, including perhaps our social class, professional status, kinship and peergroup interrelationships, and so on (bearing in mind that the two authors must differ somewhat with respect to all of these). Genetic, psychological, meteorological, and historical factors have probably played a significant role in our decision as well. On the other hand, from the perspective of our lived experience (that which can be educated), we ourselves made the decision, rather than its having been made for us by, say, the unfolding forces of human history, or by a process of postmodern narrative-building, or by Darwinian competition among selfish genes. This is not to claim that history, shared narratives, or genetics are unimportant, but rather that those who find a focus on the individual reductionist, preferring instead to focus exclusively on one or another macro-scale account of behavior, are simply swapping one partial view for its opposite. Just as human beings are not all-mind or all-matter, so we are not all-individual or all-social, but we are partly unpredictable individual experiencing agents. Hence, charges of reductionism cut both ways, and there is something to be said for preserving the integrity of the individual from the determination of different disciplines or schools of thought to seize and carry away the part that they judge to be most significant — whether this be the psyche, the genes, the social-class background, the cultural context, or something else — and to insert it into their particular all-embracing scheme of things. This is so even if the individual does not have privileged access to a context-free rationality or does not make choices in a social vacuum.

Against this, one might argue that most aspects of social organization have not been determined by the individuals who enact them. In this sense, most choices are social: made, or mandated, by certain individuals on behalf of others. For example, the society of which the present authors are members has chosen to collect household garbage as a service free at the point of use, on one particular day of the week. Insofar as we make choices about something like this as individuals, they are generally simply to take part in this practice. One might account for this "social" choice — or for differences between the service we receive in rural Wiltshire²¹ and that offered in other places — in institutional, ideological, historical, or even (perhaps) sociobiological terms. Or one might argue that it is produced by the

^{20.} There are many general and specific uses of the term "equality." While we do not object to its use as a general aim in opposition to repression, and we positively support measures to promote political equality, we do believe that a fully semiotic perspective problematizes specific forms of thoroughgoing, outcome egalitarianism.

^{21.} A county in southern England, west of London.

mediation of multiple individual preferences through a democratic process or through markets (perhaps as a species of Hayekian "spontaneous order" arising from a multiplicity of unmediated, unstructured individual preferences), or by the triumph of some individual preferences over others within a nondemocratic process. Clearly, though, it is *not* a personal choice. We did not individually make the decision to dispose of our waste in this way. Nevertheless, people's experiences of such systems ultimately determine their futures. If we come to object to this system, and if our objection is shared by enough others, the system will eventually change. Indeed, it will change over time simply by virtue of differing uses of it whether anyone holds any strong opinions about it or not.²² There are no grounds for assuming the long-term continuation of existing patterns of refuse collection, or any other social practice.

In education, students, parents, teachers, and administrators all frequently make experientially individual, "deferred" choices within a wider context of social choice, as just defined. Mind-body dualism leads, in economic thinking, to a conception of social choice as the aggregation of individual choices: the traditional rationalist liberal view. By contrast, the alternative family of "behaviorist" views — which includes both those views that take individuals to be, in important respects, inherently lacking in autonomy and those that attribute the alleged absence of autonomy to reversible social influences — tends to begin with whatever macrolevel influences (or combinations of influences) upon the individual are believed to be most significant (whether history, biology, evolution, power relations, class, or gender, for example) and then disaggregate to the individual level. At one pole of the resulting dichotomy lie both rational choice theory and libertarian anarchism; at the other are notions of both "false-consciousness" and sociobiology.

Note that this alignment is entirely at odds with a widespread conception of the policy universe as possessing a structure (left-wing/right-wing) that is independent of people's specific engagements with it. This can result in confusion about the content of value statements that give purpose to education policy. Recent debates centering on the value of "equality" illustrate this point. For instance, Geoff Whitty construes human experiences as either irrelevant, secondary, or constructible when he calls for

new forms of association in the public sphere within which citizen rights in education policy — and indeed other areas of public policy — can be reasserted against current trends towards both a restricted version of the state and a marketised civil society. If we want equity to remain on the educational agenda, we should certainly be looking to find new ways of making educational decision-making a part of democratic life and a legitimate public sphere.²³

In such discourse, abstract notions, such as rights, seem to override any consideration of real-life experience. In contrast to Whitty, Ronald Dworkin makes a closely argued case that the market offers an indispensable metric informing the pursuit, through policy, of the goal of equality of resources, while James Tooley

^{22.} In fact, at the time of this writing, local councils were considering more extensive recycling schemes alongside less frequent household collections.

^{23.} Geoff Whitty, Making Sense of Education Policy (London: Paul Chapman, 2002), 92-93.

argues that the market potentially provides a direct means to equity (by which he means some conception of "equality of opportunity").²⁴ These two authors, by variously deferring to the market, allow that preferences (individually and collectively) play some role in policy formation, though they continue to argue that these (merely) serve abstract ends such as equality of resources or opportunity.

A semiotic perspective might construe these debates and disagreements as follows. The words "market," "market forces," "equity," and "equality" are signs. They have actual content (they have as much force as anything "real"), but can only be understood and used by each of these authors, and all those for and about whom they are writing, in terms of their existing individual associations and patterns of response. There are indeed likely to be commonalities among these perceptions. Those commonalities may, to a greater or lesser degree, correspond to consistencies among the actual contents of the signs as defined by some generally acceptable measure (for example, a consensus among experts). We can never be fully certain of the extent of this, since reasoning and evidence gathering both also depend on the interpretation of signs, but we can be more rather than less certain. Both rational and empirical inquiry, in this formulation, are powerful tools that delimit their own scope. As Robert Nozick has noted, "the notion of observation uncontaminated by theory is...evolutionarily naïve....Evolution seeks to give us a useful picture of the world, in preference to a fully accurate one." ²⁵

Nozick's broadly pragmatic view explains, among other things, the observation that a rational person can survive very successfully by assuming that Newtonian laws hold true in the physical sphere, even though modern physicists know that they do not. Similarly, successful educational innovations might still be based on defective cognitivist or behaviorist models. In all sorts of specific circumstances, applying a given rule or theory may "work," even when it is possible to disprove the general validity of that rule or theory. The final arbiter — or Ideal Interpreter — is always contextually bound, it seems. 26

Although defective models do not work in all contexts, all models are defective insofar as they cannot account for all likely perspectives. For example, no account of performance or output measures, including "value-added" league tables of schools, ²⁷ can offer final guidance on what constitutes "good" or "effective" provision of schooling, however much explanatory power they may wield in specific contexts at particular times. This is true regardless of whether such measures are

^{24.} See Ronald Dworkin, Sovereign Virtue: The Theory and Practice of Equality (Cambridge: Harvard University Press, 2000); and James Tooley, Reclaiming Education (London: Cassell, 2000).

^{25.} Robert Nozick, *Invariances: The Structure of the Objective World* (Cambridge: Harvard University Press, 2001), 107–108.

^{26.} Much of the debate around the feasibility of the notion of the "ideal interpreter" (who can give objective validity to intersubjective judgment) makes use of the work of Donald Davidson. See, for example, Donald Davidson, *Subjective, Intersubjective, Objective* (Oxford: Clarendon, 2001).

^{27.} Recently adopted in the United Kingdom, the tables usually chart differential school performance assessed at National Curriculum "Key Stages" (including ages 7, 11, 14, and 16), taking the previous end-of-stage test results as the baseline.

seen as evidence to support such macro-level claims as the "state provision of education is best," or as a source of improved information flow capable of enhancing the micro-level operation of markets. In either case policymakers are responsible for responding to unfolding preferences rather than for dictating or shaping them. The point of principled debate is not, on this view, to arrive at directives that can be unambiguously implemented, but rather to attempt to influence perspectives in the certainty that interpretations will arise more or less unpredictably — and that this degree of unpredictability is itself hard to predict.

An illustrative example from contemporary policy in the United Kingdom is the pursuit of "sustainable public-sector procurement" — that is, very broadly, the mandating of purchasing and supply practices that are consistent with principles of "sustainable development" across health, education, defense, and all other sectors in which the government purchases goods and services. There is a public commitment that, by 2009, the United Kingdom will be a leader among European countries in sustainable procurement. A special "task force" has been established to see that this commitment is met.²⁸ There has been a concomitant demand for education and training. Indeed, that learning in some form is essential to the achievement of this policy goal is one of the very few things about which almost everyone involved can agree.

What would it require to achieve a consensus, three years from now, that the sustainable procurement target had been met? The policy documents themselves are, of course, unlikely to be read by all those whose actions will probably be implicated in their success or failure. Persons in this category may include, for example, military field commanders, army mechanics, hospital consultants, hospital cleaners, patients, local government officers, police, head teachers, school secretaries, government veterinarians, and many others. Others who may come to be at least conversant with the details of the policy include financial officers across the government estate, buyers in all specialty areas and at all levels of seniority, and middle managers and chief executives in all sectors. The policy and its outcomes will be interpreted by these thousands of individuals with regard to, at least, the following: their particular institutional affiliations and contexts; information summarized by local, national, and international markets with various degrees of imperfection; broad-scale influences of social structure; and any other personal dispositions they may have — for instance, to a religious faith, to the pursuit of promotion, to being popular in a particular setting, or to the pronouncements of a particular newspaper. Day by day, all of the actors involved will receive a different set of sign(al)s and will interpret them with reference to a further set. Their actions (or inactions) will generate fresh signs and signals, and these will themselves become both objects of interpretation and, perhaps, justifications for the reinterpretation of previous sign(al)s. At any time new sign(al)s may emerge, and existing ones may be reinterpreted, in light of unexpected or unpredictable events — such

^{28.} For more on this initiative, see Sustainable Procurement Task, *The Government's Approach: Delivering UK Sustainable Development Together* (2006), http://www.sustainable-development.gov.uk/government/task-forces/procurement/index.htm.

as, for example, the emergence of a strain of avian influenza transmissible by humans, or events in a given war zone. Any learning intervention can only have as its goals the purposive (but also responsive) management of sign(al)s and the facilitation of interpretation. Furthermore, the objective of such an intervention can only be that, by 2009, those involved retrospectively judge that learning has occurred and has advanced the cause of sustainable procurement as that term is then understood.

This example acquires particular interest because its complexities are sufficiently apparent that educational interventions, involving both learning and choices, have in fact been commissioned and are presently the subject of research and development. They involve providing learners from across sectors and levels of rank with structured opportunities for prioritizing sign(al)s collaboratively and for negotiating and renegotiating their meaning in impermanent, unfolding contexts. While it is not possible to report in detail here on the ongoing progress of this work, we can at least say that it has attracted enough interest to lead to further commissions.²⁹ It is important to note that the degree of complexity we have described here is typical of political policy, even in those areas that are the stuff of everyday conversation and have familiar descriptors, such as education and economics. Indeed, sustainable procurement is relatively simple in one respect: it commands broad support across the political spectrum in the United Kingdom.

CONCLUSIONS

In this essay we have attempted to show the foundational potential of a semiotic view for fields of human activity such as education. It is a view that

- takes semiotic engagement (response to sign[al]s) as the fundamental fact of human experience;
- considers human experience the correct primary focus of educational studies and practices; and
- concludes, therefore, that a study of living and learning as semiotic engagement should underpin educational policy and practice.

This has implications for both educational policy (understood as provision) and practice (understood as curriculum and pedagogy). The policy-related implications of our view include the following:

• Aggregation from the individual — who has typically been defined as "rational" by virtue of internal consistency of preferences or some type of maximizing behavior — to the social, becomes not pointless, but rather a potentially more or less informative exercise in modeling, with limited predictive value. As Amartya Sen points out, "It is important to remind

^{29.} To date this work has included research and development funded by the Purchasing and Supply Agency of the UK National Health Service (NHS PASA); the UK Government Department for Environment, Food and Rural Affairs (DEFRA); and the Royal Melbourne Institute of Technology (RMIT), Australia. Both NHS PASA and DEFRA are collaborations between the Centre for Research in Education and the Environment (CREE) and the Centre for Research in Strategic Purchasing and Supply (CRiSPS), at the University of Bath. RMIT's involvement is a collaboration between its School of Management and CREE.

ourselves that we can be interested in what rational choice requires without necessarily wanting to presume that this will tell us how people actually behave."³⁰ We cannot escape rationalization, nor assume irrationality. People rationalize, but, since rationalizations vary, the process of rationalization is more informative than its ends. That the same choices may be made by people under a given set of conditions does not ensure that they will continue to act predictably, for their rationalizations differ, and will differ even more in the future; nor will the same circumstances, understood from any one perspective or set of perspectives, guarantee the same outcomes. Thus educational policy decisions that are based simply on individual rationalizations cannot be guaranteed long-term support or validity, while a policy that invites differing rationalizations and outcomes is more likely to enjoy long-term support and success.

- The same may be said of attempts to disaggregate from the supposed ideal nature of social groups to "ideal" individuals (whether by imbuing some individuals with "false consciousness," as Marxism does, or escorting them behind a "veil of ignorance," as Rawlsian liberalism does). The preservation and development of individual identity demand the ironic deconstruction of social norms.³¹ Ideologically consistent, rationally coherent policy making based on the idea that individuals are microcosms of their social group also cannot guarantee long-term support or validity.
- Taking the first two points together, the notion that "policy" has a structure that is independent of how "policy" is understood becomes redundant. While the rise to prominence of a narrow populism that seeks only short-term majority support remains a danger, human experience is ultimately the judge of all policies. To return to a previous example, "market values" do not constitute a freestanding objective entity. People, not markets, have values (which are understandable in terms of their patterns of semiotic engagement and are not always consistent); and those values that people hold with regard to markets will arise from the particular, complex experience each has had with markets. This, however, does not signal a free-for-all: certain interpretations have stronger sign(al) values than others (though this will always be subject to change). For this reason, wise policymakers must both respond to and welcome the aspiration toward acceptable difference in matters of educational provision and elsewhere, "thereby valorizing individual preferences and local rationalities

^{30.} Amartya K. Sen, Rationality and Freedom (Cambridge: Harvard University Press, 2002).

^{31.} Note how children in the United Kingdom now use the term "gay" to mean "stupid" without any homophobic intent. Such iconoclasm is inevitable. Language, like all forms of cultural practice, subverts itself through the accretion of nuance and the endless need for individuals and groups to mark out new identities. See, for example, Rom Harré's work on positioning, including Rom Harré, Luk Van Langenhove, and L. Berman, eds., *Positioning Theory: Moral Contexts of Intentional Action* (Oxford: Blackwell, 1998).

^{32. &}quot;Acceptable difference" refers to difference that is not strongly unacceptable. Policymakers will not enjoy long-term success by imposing their preferences on others.

(whether identifiable by geographical communities or spatially disparate networks) over ideological consistency, purely economic ends, and even such cherished values as social justice or universal literacy.³³

The implications for practice (that is, curriculum and pedagogy) include the following:

- Learning happens; that is to say, it will be understood to have happened. "Education," therefore, neither creates nor enhances the capacity to learn, except insofar as it channels learning or, rather, exerts a channeling force upon human activity that affects what will have been learned. Learning cannot be provided, though teaching can. This, in turn, problematizes the broader concept of educational "opportunity."
- The learner (child or otherwise) is not a preexisting rational entity. His or her processes of rationalizing develop, or change (since there is no absolute standard against which to measure development), as he or she learns. Similarly, there is no set of absolute values to use in determining what should be taught. Therefore, teaching should not principally be learner-centered or content-centered, but, rather, activity-centered and learner-aware, since it is retrospection on certain experiences that actually determines learning.³⁴
- Learners are interpreters, and education is interpretation at all levels and by all actors. Its outcomes are unpredictable, and people seek and strive for the creation of largely acceptable difference (variously construed experientially as surprise, inspiration, interest, wonder, and the like). Therefore, the value of consistency in any aspect of educational provision, including in curriculum and teaching style, is limited. Experiential impact is of much greater importance than consistency, or even commitment.³⁵

In education, understood as semiotic engagement, quality (and, indeed, equality) can only be evaluated experientially. Slogans such as "choice," "standards," or "the child" are empty in themselves. They can only be filled by a developing — and therefore to some degree unpredictable — sense of the choices actually made by people, according to the rationalizations actually made by them, bearing in mind that even these have limited endurance. The "bottom line" of the fully semiotic perspective is that people will respond differentially and somewhat unpredictably whether those in authority like it or not, and there is no absolutely legitimate set of criteria that can be enforced to override such difference and unpredictability. Law and morality remain necessary, however, in attempting to prevent people from restricting the expression of others.

^{33.} Compare with Fukuyama's "end of history" thesis, the relation to which is not fully worked through here. See Francis Fukuyama, *The End of History and the Last Man* (London: Penguin, 1992).

^{34.} For a much fuller discussion of this point, see Stables's Living and Learning as Semiotic Engagement.

^{35.} Taking this point one step further, one might ask whether a "broad and balanced" curriculum produces people who are any more "broad and balanced" than one that follows narrower lines of interest in great depth.

In conclusion, therefore, a semiotic theory of choice and learning would valorize individual difference and unpredictability. It would seek to study these within context and to respond positively to them within policy. This implies a commitment to basic forms of political freedoms (of association, belief, travel, assembly, and so on) and an avoidance of measures intended to determine, rather than to manage, the resulting outcomes. Such a theory, therefore, would not seek to identify and enforce determinate measures of equity, fairness, opportunity, standards, national pride, economic efficiency, or any other social good. Nor would it deny whatever conceptions of social good were current, though these can never be universally held, consistent, nor guaranteed longevity. It would continue to accept the rule of law as an imperfect and evolving proxy for justice.³⁶ It would not, therefore, attempt to determine economic value but would allow market forces (broadly conceived) to do this.³⁷ It would not assume that each should act according to "his" ability in relation to the other's need, but would rather allow people to respond to others in ways that do not impede those others' freedom to respond to further parties. It would focus principally on processes, not outcomes: that is to say, there would be a relatively greater focus on procedural rather than retributive or redistributive justice, given that the attempted specification of outcomes is undesirable, even futile. It would not see education as the passing on of cultural heritage, but as its reappropriation, looking to tradition as an agent of change.

In short, a semiotic theory of choice and of learning could lie at the heart of a postmodern liberal society.

^{36. (}Justice) conceived as a deferring to the Other, as in the works of Jacques Derrida and Emmanuel Levinas. For more on this, see Denise Egéa-Kuhne, ed., *Levinas and Education: At the Intersection of Faith and Reason* (London: Routledge, 2006); and Gert J.J. Biesta and Denise Egéa-Kuhne, eds., *Derrida and Education* (London: Routledge, 2001).

^{37.} Broadly conceived, a market is a site (real or virtual) for the transaction of human wishes, whether or not money "changes hands."

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