This article applies the analytic rigor of philosophy to the vexed topic of business strategy, and uses the objective, public evidence of business strategy as an existence proof for the possibility of free will and purpose in the private realm of subjective intentionality. The first part distinguishes three types of intentionality in philosophy—purposive intentionality, referential intentionality, and the problematic intentionality of a godlike, miraculous “inner intender.” After rejecting this third type of intentionality, and noting that its rejection saves the first two types of intentionality from guilt by association, the second part draws parallels with three types of strategy in business: purposive, referential, and godlike. The first defines the goals and objectives of a company; the second picks out and targets consumers in market driven strategy; and the third, with the help of philosophical reflections, demands a rethinking of the function of leadership without reliance on a single, godlike leader. In the third part of this article, the existence proof from the public world of business is used to shed light on the possibility of intentionality in the private world of subjective intentionality. Finally, the article draws conclusions for its three audiences: for the philosophers, with credit to Nietzsche who saw it all, a greater clarity about intentionality and free will; for business people, greater clarity about the importance of purposiveness and strategic intent; and for business philosophers, a demonstration showing how—through strategy and intentionality—we can both create value and give meaning to the lives of our employees, ourselves, and our customers.

**KEYWORDS:** Strategy, intentionality, free will, leadership, Nietzsche, teleology.

This article is meant for three audiences: first and largest, business strategists; second and much smaller, philosophers; third and truly miniscule, those few who occupy the overlap of the first two sets. But for you very few, I offer a rare conversation shedding reflected light between two realms of discourse that seldom if ever illuminate one another.

Strategy is a vexed topic in the business literature. What is it? How do you do it? Countless books and journals are devoted to the topic. Intentionality is an...
equally vexed topic in the literature of philosophy. At the risk of illuminating the obscure by the impenetrable, the aim of this essay is precisely to illuminate both strategy and intentionality by shedding light from each on the other.

On a superficial level the idea has some appeal. After all, isn’t it plausible to think of strategy as the intentionality of an organization? A statement of strategy is a statement of intentions—what a company intends to do. So far so good. But how does a company figure out what it intends to do? And what are intentions anyway? Purposes? Haven’t we learned from the last 300 years of science and philosophy that all rigorous explanations come down to pushes, not pulls? Don’t we know that causality works in just one direction, from past to present? Haven’t we consigned teleological explanation—explanation by teloi, or final causes, or purposes—to the dustbin of history?

Once we start to dig, even in the business literature, we start borrowing words that have a home in philosophy . . . and darkness falls. “Purpose,” “intention,” “function”—these words are unavoidable if we are to make sense of strategy. But these words, however current they may be in the discourse of common sense, have become problematic in academic discourse about philosophy and science. Many contemporary philosophers would smile at their use. They would describe them as bits of “folk psychology.” Strictly speaking, they would say, there are no such things as final causes. May flowers do not cause April showers, even if we like to think that the function of April showers is May’s flowers, or that it rains in April for the sake of May flowers. Causality does not run backwards, only forwards. When we use words like “function” or “for the sake of,” we are using a kind of short-hand for a much longer and more rigorous account, a naturalistic account that will reduce everyday phenomena to materialistic explanations in terms of efficient causes, or pushes. In the case of biological phenomena like May’s flowers, the account may call upon Darwinian explanations involving natural selection and the survival of the fittest. But those accounts, too, can be reduced to the play of “chance and necessity,” to use Jacques Monod’s phrase.

As soon as we scratch the surface of this seemingly sensible idea—that strategy is the intentionality of a company—we find ourselves tangled in a briar patch of texts and problematic ideas. Perhaps we should leave the tar baby of intentionality well enough alone . . . but, no, there’s too much to be gained from sorting out the confusion. There’s much to be gained for business: a deeper understanding of strategy. And much to be gained for philosophy: an existence proof for intentionality.

The strategy of this essay is to begin where it’s darkest, in the depths of philosophy, by sorting out three different senses in which the word “intentionality” has been used and abused. Once those three types of intentionality have been disentangled, I will defend two of them as sensible, and criticize the third as a confusing troublemaker. But the trouble is not easily solved within the confines of philosophy alone. For reasons having to do with the unreliability of evidence drawn from introspection, philosophy alone is not the best battleground for fighting the battles over intentionality. Business, it turns out, provides a better battleground—less introspective, more extroverted, out in the light of day. So the second section of this essay will take what we have learned about two types of intentionality and map
them onto the world of business strategy. And then, in the third section, business strategy will return the favor by helping to clarify some of the confusions caused by that third type of intentionality, that troublemaker which, once identified, will have even further implications for business strategy. I will conclude with some remarks for each of this essay’s three audiences.

INTENTIONALITY

Three Types of Intentionality

One type of intentionality is purposive: She did it intentionally, on purpose. Everyday use of this type of intentionality is fairly unproblematic. We accept the distinction between intentional and unintentional action. We acknowledge accidents. There is a difference between going downstairs to get the mail and falling downstairs. There is a difference, inscribed in our legal system, between manslaughter and pre-meditated murder. Murder one is punishable by death in many states. Murder two, lacking murderous intentionality, is less heinous and receives correspondingly lighter sentences. We ask juries to make these distinctions, and we expect them to be able to do so without getting lost in thickets of philosophical mumbo-jumbo.

Another type of intentionality—let us call it “intention-two” because “second” is both arbitrary and, for historical reasons, confusing—has, at first glance, nothing to do with purpose. Intention-two has to do with reference. Referential intentionality has its home in the worlds of linguistics and semiotics, the theory of signs. How do words get their meanings? How do words pick out things in the world that they refer to? How can we explain their aboutness?

Then there is a third type of intentionality invented, in part, as an answer to the questions raised by the second type. How do my words get their meaning? Answer: By what I mean them to mean! By what I intend them to mean. This third type of intentionality is the intentionality of the “central intender,” the core of consciousness, the I think: what Descartes called the Cogito, as in Cogito ergo sum—I think, therefore I am. This third type of intentionality has a long pedigree running from Descartes through Kant to Brentano, Husserl, Heidegger, and Merleau-Ponty. But because it is the first person subject of experience, not a third person object of science; private rather than public; deduced rather than, strictly speaking, observed, it is, as declared, a troublemaker, something of a mystery.

This third type of intentionality has been attacked by contemporary philosophers. It has been exorcised by Gilbert Ryle, who captures its mysteriousness by labeling it, “the ghost in the machine.” The phrase, “central intender,” comes from Dan Dennett, a student of Ryle’s, who debunks the whole idea of intentionality-three in his important book, Consciousness Explained. Trouble is, many of Dennett’s readers have decided that a better title for his book would be Consciousness Explained Away. A baby has been thrown out with the bathwater of intentionality-three—the very tar-baby of intentionalities-one and -two that we want to save.

There is a vast literature running from behaviorist psychology to materialistic reductionism in the philosophy of mind all dedicated to the proposition that we
are well rid of intentionality-three. There is something right about this literature, and something wrong. What’s wrong is captured in the joke about one behaviorist meeting another on the street and declaring, “You’re fine. How am I?”—as if any and all claims about internal states of consciousness based on introspective evidence were utterly unreliable. What’s right about the deflationary literature is its attack on certain ways of accounting for consciousness. There has been a lot of misleading rhetoric written about the so-called core of consciousness, a lot of philosophical mumbo-jumbo well worth leaving behind.

What’s right about the troublemaker, intentionality-three, can be discerned from the ideas it was designed to refute. Intentionality-three’s strongest defense is its attack on naive empiricism, namely, the ideas put forth by Locke and Hume that there is nothing in the mind that did not first enter it through the senses, and that the contents of the mind are therefore copies or representations of things out there in the world. This is a caricature to be sure, but it’s worth stressing at least for a moment the naïveté of a certain form of empiricism, namely, the empiricism of Jack Webb in the old Dragnet series who asked for, “The facts, ma’am. Nothing but the facts”; or the empiricism that imagines knowledge to be a compilation of facts undistorted by bias or interpretation. This is the empiricism that thinks it possible to gain pure objectivity by scouring our accounts clean of bias or interpretation. Facts are to be sharply distinguished from values, objectivity from subjectivity, truth from mere opinion.

In contexts like the city room of the newspaper, surely it makes sense to distinguish what belongs on the editorial and op-ed pages from what goes on the first page. Surely it makes sense to teach cultural anthropologists to look at the natives on their terms, not ours. But just as surely as social scientists and marketers distinguish avowed intent from real intent—she said she went to work for the money, but her real intent was to escape the drudgery of housework—so likewise we can distinguish the avowal of empiricism from its real import: to substitute one set of methodological biases for another.

It’s not just anti-empiricist philosophers but cognitive scientists as well who conduct laboratory experiments showing that what we see is very much influenced by how we look. Optical illusions show the importance of context. Color-blindness shows us how easy it is to miss what, for reasons of physiology, some people cannot see. How much else, we may ask, do we fail to see simply because our perceptual apparatus is so tuned as to let us see some things but not others?

Once you start down this road it leads directly to Descartes’s famous doubt: Could God be deceiving me? After all, the oar seen half way into the water looks bent even though I know it to be straight. Could the evidence of my senses be less than a veridical copy of the real world? And if so, how would I know if my only access to the world is through my untrustworthy senses? And from there, it’s straight to Kant’s insight that we know things only as they appear to us, not as they are in themselves. And from there it’s on to Husserl’s so-called phenomenological reduction—the attempt to see things as they are by wiping away all presuppositions. And from there it’s on to Heidegger and Merleau-Ponty on the ineradicable role of intentionality in shaping the objects of knowledge. By this time, well into the twentieth century, the so-called subjective turn that began with
Descartes has curled itself into a vortex of subjective idealism and an obsessive preoccupation with epistemology from which it would take philosophy nearly a century to recover.\footnote{1}

The attack on naive empiricism is well aimed. The target is large. But idealism’s cure to naive empiricism may be worse than the disease. To the extent that the defense of intentionality-three leaves us with an uncaused cause at the core of consciousness, a “central intender” who means words into meaningfulness, then we have a problem: this “transcendental unity of apperception,” as Kant called it, is inscrutable and ineffable. Kant backs into it by what he called his “transcendental deduction”: What is necessary in order that knowledge be possible? The argument is logically similar to that of the creationists: What is necessary in order that the manifest order and complexity of the world be possible? A creator God, they answer, for chance and necessity, they think, could never have come up with the eye, or the mandible, or the peacock’s tail. But Darwin and his heirs give another account of the evolution of order and complexity. Likewise, this central intender may appear necessary if you cannot give any other account that makes knowledge possible. But just because knowledge looks so complex that it couldn’t be possible without a central intender, it does not follow that there is a central intender. Indeed, there is a close similarity, structurally speaking, between the creator God and the central intender. Both serve as unexplained explainers of what we have difficulty explaining otherwise, namely, the complexity and order of the world in front of us, as well as our knowledge of that world.

For the order of the living world we have another account of the complexity in front of us, namely, Darwinian evolutionary theory supplemented by the more recent theory of self-organizing systems. We do not have to settle for creationism or so-called intelligent design. Likewise, there may be other explanations for intentionality-one and -two that give us all we need from the residue of what is right about intentionality-three—but without the mysteriousness of the ghost in the machine. Interestingly enough, Darwinian modes of explanation will also play a role in deconstructing the central intender and making sense of intentionalities-one and -two.

Before snatching the babies of intentionalities-one and -two from the bathwater of intentionality-three, let’s have a look at the stakes by having a glance ahead at where this essay is headed. If the deflationists have their way completely uncontested, then it will turn out to be very difficult to make sense of intentionality-one—purposive intentionality—whether in the case of the individual, or in the case of an organization. For the individual, the idea of free will becomes incoherent. For a business, the concept of a mission or strategy will be equally incoherent. In the case of the individual, the agency of the self will give way to the causality of genes, or social class, or any number of other determinants to which behavior may be reduced. In the case of a business, the agency called leadership will give way to the causality of market conditions, organizational structure, or any number of other determinants to which organizational behavior may be reduced.

Neither in the case of the individual, nor in the case of a business, do we want to surrender the notions of agency, free will, or leadership. To do so is to give up on closely associated ideas of responsibility and accountability. But if we are
to hold onto responsibility—without which the very idea of morality becomes a sham—then we need an account of agency that does not rest on “the ghost in the machine,” whether some obscure homunculus inside the core of consciousness, or some “great man” at the helm of a giant corporation. So the stakes are indeed high. It’s worth getting clear about intentionality at both individual and corporate levels.

Making Sense of Purposive and Referential Intentionalities

For the better part of two millennia—from Aristotle to the rationalist Enlightenment—final causes were the main source of explanatory power. Biological growth was the model of change. Just as the acorn is destined to become an oak, so everything else had its purpose, its telos. Teleological explanation—explaining things by reference to their purposes—was perfectly acceptable. Then came Bacon, Newton, and Spinoza with arguments showing the superiority of efficient causes—pushes from the past—over final causes—pulls from the future. People may make choices to frame purposes, but things cannot. When we claim purposes for things, we are guilty of anthropomorphism—seeing things as if they had little people in them, homunculi or “little men” who can frame and hold goals in mind and steer the substances in which they dwell toward actualizing their potentialities.

Once we get rid of teleological explanation in the case of things, however, the reach of enlightenment rationalism can extend all the way into the soul of man. We can no longer indulge in anthropomorphism, even in the case of anthropos. Descartes, Hobbes, and Spinoza saw the human organism as a machine—the muscles, bones, and tendons as so many levers and pulleys. But inside that machine, Descartes claimed to find the Cogito. He distinguished extended substance—matter in motion in space and time—from unextended substance—the mind. And so the mind/body split was born, and lives with us still.

Early on, Spinoza legitimately objected to what he called “a kingdom within a kingdom.” There is something unparsimonious about positing such mental substance inside the machinery of physical substance. So just as the science of the enlightenment dispensed with final causes and teleological explanations, so also psychologists and philosophers learned to live without the ghost in the machine. Concepts like consciousness, intentionality-three, and even purposive intentionality-one were exorcised as ghosts we were well rid of. Consciousness got explained away. The language of “mentalese” may live on in folk psychology, but rigorous thinkers like Richard Rorty and Dan Dennett look forward to a day when this language will have been eliminated. So-called eliminative materialism looks forward to the day when mental intention will have followed phlogiston and the tooth fairy into the museum of quaint fictions.

The world entertained by the eliminative materialists is a dead world, devoid of purpose, essentially meaningless. In such a world values are only subjective preferences. When I say that something is good, all I am saying is that I like it. You like chocolate, I like vanilla; you like love, I like destroying my adversaries. Whatever is cool for you is cool for you, whatever is cool for me is cool for me. In a
dead world, devoid of meaning and purpose, values are just subjective preferences and “ethics” is reduced to subjective relativism. This will not do.

In order to give some firm basis to meaning, purpose and value, we need a way to make sense of intentionality-one without relying on intentionality-three. How can we give a naturalistic account of purposive intentionality? How can we give an account of purposive intentionality that does not presuppose mind? The answer lies in intentionality-two: referential intentionality. Rather than imagining causality running backwards and pulling the present into the future, purposive intentionality can be explained by referential intentionality. Just as people represent their purposes in various forms, from New Year’s resolutions to statements of goals and objectives, so it is possible for relatively primitive organisms to represent future states in the present. Rather than imagining that some desired future state can somehow lure the present toward itself—the kind of insidious teleology to which Spinoza rightly objected—instead it is precisely referential intentionality-two that permits a naturalistic and non-mystical account of purposive intentionality-one. The future is represented or, better, pre-presented as information about the future in the present. Genes do it. So do “autonomous agents.”

The next section “zooms in” to a brief review of the work of Stuart Kauffman’s autonomous agents and Terrence Deacon’s autocells. Kauffman and Deacon have worked out detailed accounts of the minimal conditions necessary to construct, from the ground up, entities of whom it can be legitimately said that they are operating purposively or on their own behalf. Both purpose and reference can be generated without invoking intentionality-three.

**Autonomous Agents and Autocells**

What is an autonomous agent? It is an organism that can act on its own behalf in an environment, according to Stuart Kauffman (1995) who writes about a single-celled organism swimming upstream in a glucose gradient. He says of such a system that it makes sense to see it as “going to get lunch.” It is acting on its own behalf. But is he guilty of anthropomorphizing such a protist when he describes it as “going to get lunch?”

Another major source for the thinking in this essay is Terrence Deacon, author of *The Symbolic Species*. Deacon and Kauffman together give us all the tools we need to construct a naturalistic account of the evolution of purpose from non-purposeful mechanics. I will review just enough of the highlights of their arguments to give muscle to leadership and strategy.

Let’s start with the idea of self-organizing systems and autonomous agents. Without making any assumptions about a creator or a pre-destined plan, how can a formless, seemingly random collection of molecules come together in such a way as to acquire a more or less stable form, and, further, pass that form on to successor organisms? At least this much is necessary if life is to emerge from lifeless matter.

The first conceptual tool is the idea of autocatalysis. A catalyst is a chemical that helps other chemicals to bond. Say you have a lot of chemical A, and a lot of chemical B, but they do not join together as AB with any regularity or frequency until you add C, which catalyzes their bonding. When they bond, there
is a byproduct, D. Now imagine that D happens to be a catalyst that facilitates the bonding of E and F, and that when E and F join to make EF, that reaction gives off more of C as a byproduct, which, in turn, catalyzes more AB, producing D, which catalyzes EF, producing even more C . . . and these two catalytic reactions form a kind of reciprocal generation reaction called *autocatalysis*.

The second conceptual tool is the idea of containment. If you want to increase the likelihood that A will find B in the presence of C, what better way than to contain A, B, and C in the same small environment? Without some form of containment, or some other means to ensure proximity, for example, an attractive surface, the concentrations of A, B, and C will be reduced by thermodynamic, entropic dissipation.

The third conceptual building block for the naturalistic evolution of purpose is the idea of natural selection. Here’s where Darwin comes into the picture. Let a thousand molecules bloom. Let a thousand reactions among those molecules bloom. But which molecules, and which sets of reactions, will flower the most? The answer: those that are not selected out. Those that repeat. Those that are catalyzed and, even better, auto-catalyzed. And, better yet, those that achieve autocatalysis within a container that increases the likelihood of even further autocatalysis.

Imagine, then, a primeval stew of fairly complex molecules such that some autocatalytic reactions get started. Imagine next that as a byproduct of some of these autocatalytic reactions, some sort of membrane is formed. Luigi Luisi and David Deamer have already demonstrated the possibility of lipid sacs forming from sheets of hydrophilic (water-loving) and hydrophobic (water-hating) molecules. Now imagine that some autocatalytic reactions become captured within such a membrane in a way that increases the likelihood and pace of autocatalysis. Is it a cell? Is it living? We needn’t ask or answer this question yet. All we are looking for are the minimal conditions for the possibility of purposive or referential intentionality . . . and we are well on the way there.

With these three conceptual building blocks—autocatalysis, containment, and natural selection—we have enough to imagine the following processes: first, consider that some of these containers break apart. Thermodynamic noise, entropy, is a feature of this system, not a bug. These tiny sacs may be fragile, their form only fleeting and tenuous. The thermal hum of entropy pushes everything toward formlessness. Messiness is more likely than coherent form. Left to their own devices, things fall apart. So let us imagine that roughly a third of a thousand sacs rupture and dissipate into formlessness—into a random distribution of molecules similar to what was present in the prior substrate. Let us imagine that another third remain intact. And let us imagine that the third third rupture, but do so in the following way: Rather than simply dissipating into disorder, this third third of sacs contain “starter kits” that provoke the beginnings of new and different autocatalytic cycles based on the random or chance introduction of different molecules from the substrate to fill certain roles in the complex polymers and peptides that hold whole organisms together. In other words, there is a somewhat random introduction of new and different molecules to play certain roles in the autocatalytic cycles. Some molecules turn out to work better, some worse. Those that work better establish lineages of reproduction in successive cycles of thousands at a time that are more
robust, more prolific, better adapted to the environment than other lineages that are selected out.

This process of natural selection helps to explain more than the evolution of species as Darwin described it. This process of natural selection also applies to axon growth in the embryogenesis of the brain, and in its growth through infancy, childhood, adolescence, and adulthood. Axons that get used prosper. Axons that do not get used atrophy. Some survive, some do not. Selection is a very natural process. It plays no favorites, it has no goal. It just sorts the well adapted from the discordant, leaving, as Deacon puts it, a “least discordant remainder.” As Leibniz put it, possibility is really compossibility, possibility with, sustainability in a context such that the unit of survival is, as Gregory Bateson saw, neither the individual phenotype, nor the genotype, nor the species, but always species-plus-environment. For a genotype to be possible, it must be compossible—least discordant, or concordant with its environment.

So likewise in the growth and functioning of the brain. A lot of different parts have to work together. The simple criterion, whatever works, goes a long way toward explaining both pragmatism as a philosophy and evolution as a scientific theory. Darwin, James, and Dewey were each and all consequentialists—as opposed to the heirs of Immanuel Kant for whom good intentions were enough. No, results matter more than intentions, so say the consequentialists.

Taking this Darwinian logic back to the differential survival of various lineages in the further propagation of the autocell, we can find here the satisfaction of conditions for the emergence of referential intentionality. Think of each different lineage as more or less concordant with, or adapted to, its environment—as proven by the consequences of varying survival rates over successive generations. Each different lineage is a kind of guess about what the environment will support or afford. As such, each different lineage “says something” about that environment—that it will support x, or y, or z. Correct guesses or “statements” survive; incorrect ones perish. It is in this sense that the differential survival rates of different lineages allow us to attribute aboutness to surviving lineages. We can see a semantic relationship between what is inside their respective containers and what is outside in their environments.

What begins as a life and death, on/off digital logic of survival will eventually evolve toward an analog sensibility, for example, heat sensing along a continuous scale of hotter or colder, or olfactory nerves that can sense various intensities of various odors. But in order to find the origins of referential intentionality—how something inside a boundary can represent something outside that boundary—it is helpful to trace the logic back to its minimal conditions. How do we know that a given token means a given referent? Without presupposing an entire semantic and syntactic structure of an already existing language, it’s not easy to see what makes any physical thing—a mark on a page or a molecule—into a sign of something else. The riddle we are trying to unlock here is nothing less than the physical nature of information, or the origins of semiosis, or the theory of semiotics.

By tracing the origins of semiosis back to the Darwinian logic of differential survival among lineages of the autocell, Deacon provides an up-from-the-bottom, naturalistic account of the origins of teleology, or intentionality-one, showing how
it is possible—without a reversal of causality—for relatively simple, pre-biotic entities to want something. To the extent that the insides of autocells in a given lineage are well adapted to their environmental outsides, their insides can be said to represent or, better, pre-present those outsides. Those insides want or need what the environment can provide. It is not the case that some future telos is pulling the present forward in time by a reversal of causality. The purposiveness of intentionality-one is already present in the form of the referential intentionality-two that has been achieved by the semantic aboutness linking the insides of a given lineage to what is outside in an environment that will sustain it.

As the late Wittgenstein put it, the meaning of a word is its use. Likewise at the level of pre-biotic autocells, the semantic meaning of their molecular contents is a function of their usefulness in propagating lineages whose success is measured by the consequences of different survival rates.

**Minds and Organizations**

Now if we can zoom out from the micro-scale of proto-biotic autocells to the macro-scale of minds and organizations, we can draw some implications from the account of purposive intentionality-one and referential intentionality-two as so derived. The point of giving such a bottom-up, causal, constructivist account is to show that there is no need for intentionality-three. Just as there was not (nor could there be) any “inner intender” in the autocell—no quasi-conscious giver of instructions to fix the semantic reference of its molecular contents—so likewise there is no need for an inner intender at the macro-level. We need neither Kant’s transcendental unity of apperception nor Descartes’s innate ideas to fix the referential intentionality of ideas in the mind. We can get all the referential intentionality we need by building our semantics, step by step, over successive generations of evolutionary trial and error, from the primitive semantics of the autocell. And once we have referential intentionality, then we can get purposive intentionality without running causality backwards.

Note that doing away with the need for innate ideas or an inner intender does nothing to defend the large target called naive empiricism. The continental rationalists and Kant were right to criticize Locke and Hume. And the phenomenological tradition from Brentano and Husserl through Merleau-Ponty was right to suspect that an adequate account of knowledge and perception could not be built up from an accretion of Humean sense data impinging on a tabula rasa like so many photons on a sheet of silver halide film. But continental idealism’s alternative account in terms of intentionality-three missed the mark. It assumed an inner homunculus that has now been deconstructed and rendered otiose by Deacon’s account of intentionalities one and two.

Once a mind has intentionalities one and two at its disposal, then everything that the post-Kantians and phenomenologists want by way of subjective categories, pre-understandings, or interpretive anticipations can be had. The mind need not be conceived as a passive receptacle of sense data that are simply given to perception. The mind can play an active role in constituting the objects of knowledge. All that’s needed is the interplay of a referential semantics and a
capacity to represent *that* which is not yet. Of course it is a little odd to say, “All that’s needed,” for the achievement of semantic reference is quite a lot. But the important point in the account given to us by Kauffman, and particularly by Deacon, is that you can get intentionality-two—reference—without relying on the central intender of intentionality-three. Once you have the combination of autocatalysis, containment, entropic breakdown of containment, and successive generations of differentially adaptive lineages . . . then you have satisfied the minimal conditions for natural selection. And once you have natural selection, then you have at least one of the necessary conditions for representation or semiosis. And once you have semiosis, then what is *wanted* can be pre-presented. Purpose is born without making time run backwards.

From the primitive form of semiosis at the level of the autocell, there’s a long way to go to get to language. Using a Peircean semiotics based on a hierarchy from icons to indexes to symbols in his groundbreaking book, *The Symbolic Species*, Deacon shows how hominids may have climbed that hierarchy. The significance of Deacon’s achievement is hard to over-estimate. Not only has he solved the problem of referential intentionality that has plagued epistemologists for centuries; not only has he figured out how simple signs like icons get their referents, but he has also shown the much more complicated logic by which symbols get their meanings. And having solved the puzzle of referentiality, he is then able to solve the puzzle of purposive intentionality without relying on either *teloi* pulling from the future, or central intenders projecting purposes. This achievement can be appreciated only by measuring it on a scale of millennia in a hyper-simplified tale I will tell in just three chapters:

- **Chapter One:** From Aristotle to Bacon, the basic model of change is teleological, where the paradigm case is that of an acorn becoming an oak. How to understand gravity? Each falling thing is “seeking its proper place.”
- **Chapter Two:** From Bacon, Newton, Descartes and Spinoza to the present, final causes are banished from the universe. Final causes do not exist, only efficient causes. Explanation works from the past to the present, by pushes, not pulls. All of the explanatory arrows point downward toward fundamental laws of mathematical physics.

But anomalies remain:

- The language of *function* seems ineradicable from biology.
- The properties of various emergent systems seem to be both unpredictable from their precursors and irreducible to the properties of their components.
- What purports to be the most universal and powerful framework for explanation, mathematical physics, cannot explain time’s arrow. Its formulas are reversible even though everyday temporal reality clearly is not.
- Nobody can quite get a handle on the mind/body problem. We cannot even articulate the problem of consciousness to everyone’s satisfaction. Mental causation, or “free will,” remains a mystery.
• Assuming the death of the Great Intender in the Sky, God, the remaining meta-
story is one of matter in motion in space and time, devoid of meaning and,
to the extent that it is all reducible downward, ultimately dead. Entropic heat
death is our evident destiny.

• Chapter Three: Deacon, Prigogine, Kauffman, and others find a way to give
naturalistic accounts of self-organizing systems and restore final cause to an
ontological status it has not had since Chapter One. But they do so in a way
that is entirely consistent with what we know of modern physics and chemistry
in Chapter Two. Rather than relying on reductionism, they show that emergent
systems are possible and, while the world as a whole may lack a grand and
reassuring purpose, there is no reason that living, breathing existential individ-
uals cannot find real purposes in their social milieus—goals or destinies that
are thrust upon them by their historical circumstances—and/or give themselves
purposes by creative acts of imagination.

This is not to say that all of the anomalies that have arisen in Chapter Two have
been solved. But with the restoration of the ontological status of purposes and
functionality, and the outlines of a logic of emergent systems, the new semiotics
and the new sciences of complexity appear to have what it takes to solve these
problems.

One of the main barriers to solving the mind/body problem, or the problem
of consciousness, or the problem of mental causation or free will, is the famous
unreliability of evidence from introspection. From Descartes’s accounts of his
doubt-filled meditations, through Hume’s failure to find a core of personal identity,
Peirce’s account of four “incapacities,” William James’s doubts about whether
consciousness exists, to Wittgenstein’s devastating critique of private language,
philosophers have tried again and again to plumb the depths of subjectivity and
come up with something valuable and reliable to report. But again and again they
come up empty handed, unless you call elegant arguments for the lack of solid
evidence a handful. How can you know that your experiences of a particular blue,
or heat, or pain, are the same as my experiences of the same qualities? The nature
and experience of subjectivity are extremely elusive, even when the subjectivity in
question is the subjectivity of the questioner. The charge of possible self-deception
is hard to dodge. It’s not just a question of integrity or intent. In the very nature
of the case, it’s hard to grant third person, inter-subjective validity to first person
subjective reports.

It is at precisely this point that it makes sense to expand our horizons from
the individual mind, locked as it is behind curtains of introspective privacy, to the
public realm of the corporation—that artificial “person” who exists out in the light
of day. Rather than trying to solve the puzzles of subjectivity, will and individual
agency by seeking them inside the first person singular, let us see what can be
found by looking at the first person plural. For it is first-personness we are after,
not so much its singularity or plurality. By focusing on the collective rather than
the individual, we may be able to steer ourselves around the crevasse of ineffable
interiority.
The next section of this essay takes what we have learned about intentionality in this first section and applies it to the world of business strategy. By exploring the various types of intentionality as they are exercised out in the intersubjective realm of business, perhaps we can return the favor that Kauffman and Deacon have done us by their constructive account of purpose and reference at the level of autonomous agents and autocells. Perhaps we can find logics of public interaction that will shed light on the obscurities of free will and mental causation.

**STRATEGY**

*The Elusiveness of “Strategy”*

Let us acknowledge at the outset that strategy is as much a source of confusion in the business literature as intentionality is in the philosophical literature. It is not as if we were exploring some fixed terrain like the far side of the moon, unknown until we see it, but then perfectly determinate once we’ve traversed it. Strategy is not the elephant that is perceived differently by blind men touching its different parts. Strategy is more like the automobile: Something we are making up as we go along. We can talk about the functions it serves, what people have said about it in the past, and what makes one strategy better than another. But if we embark on a quest for what strategy really is (despite what the misguided have said about it), then we are indulging in a misplaced essentialism in pursuit of something whose existence precedes, and perpetually updates, its essence.

Acknowledging the existential elusiveness of the concept of strategy is not an admission of ignorance or defeat. It is instead a fair appraisal of the state of the art, or better, the nature of the beast. Fred Nickols, author of an essay ambitiously entitled, “Strategy: Definitions and Meaning” (http://home.att.net/~nickols/strategy_definition.htm), concludes his survey of the literature:

> This paper has taken a broad, multi-faceted look at the subject of strategy. Some readers might go away disappointed that no final, unambiguous definition of strategy has been provided. The quick response is that there is none, that strategy is a broad, ambiguous topic. We must all come to our own understanding, definition, and meaning.

This makes it sound as though strategy can be whatever you want it to be, *whatevah*. We can do better, but not through misplaced essentialism. Instead we can take an existential approach that says, in effect, strategy is as strategy does, or has done. And we can chart the evolution of strategic thinking in a way that takes some hints from what we have learned about intentionality, and moves toward normative insights about what strategy *should* be.

To the extent that the evolution of strategic thinking has been as much about the evolution of its niche—the business environment—as about the evolution of theory, we can infer where strategy wants to go next from some broad-brush trends that are driving the business environment.
Three Types of Strategy

Closely corresponding to intentionality-one or purposive intentionality, strategy-one is all about setting goals. Where does the organization want to be in five years? Ten years? In what direction should the company be headed? What is the growth trajectory? What is its mission? Strategy-one is all about ends. Tactics are then the means toward the realization of those ends.

Like intentionality-one, purposive intentionality, strategy-one is future oriented. Strategy-one is often referred to as long range planning. It operates on a time-scale that extends well beyond the next quarter or the current budget.

The rise of business strategy in the 1960s and 1970s occurred in a context and at a time when free market capitalism was often contrasted with Soviet central planning precisely around the question of whether five-year plans should not be left to the Kremlin. “They do long-range planning. We respond to the market.” But as firms got larger, response times got slower. You could not turn GE or US Steel on a dime. They were more like super tankers whose wide turning radius demanded forethought if one were going to make it through a channel without winding up on the rocks. So the early classics by Alfred Chandler (1962), Igor Ansoff (1965), and especially Russell Ackoff’s Creating the Corporate Future (1981) gave a legitimacy to the long view that it had lacked in earlier decades.

This earlier, older generation of business strategists was operating in an environment shaped not only by the cold war, but also by the climax of the industrial era, the apotheosis of Fordism. As Peter Drucker wrote in The Concept of the Corporation, which was largely based on his study of General Motors, the fundamental production function of the corporate colossus was the mass-manufacture of standardized goods for a mass market. Economies of scale, producer push, and engineering efficiencies allowed the growth of a vast middle class of consumers whose values tended toward materialism, acquisitiveness, and keeping up with the Joneses. Consumers wanted more, more, more, of the same, same, same, and demand was outstripping supply. In this kind of business environment, the heroes were the engineers who could apply science and technology to improving productivity so that more could be produced and sold faster with fewer resources. Strategy consisted largely in seeing future opportunities, and in coordinating the resources required to meet growing demand. Peter Drucker encouraged executives to adopt Management by Objectives (MBO). The great danger lay in aiming too low.

Then things changed, in several respects. With the oil shocks of 1973 and 1979, resources got tighter. The invention of the microchip and the computer laid the foundation for what became known as the information revolution. Information began to substitute for energy as efficiencies and miniaturization swept across different industries. The number of people employed in manufacturing in the United States plummeted as the number employed in information and services soared.

Information and services do not always exhibit the economies of scale found in industrial manufacturing. More and more of the same, same news is not news; its redundancy. Gourmet services for niche markets must be customized, not mass
produced. The shift from industrial manufacturing toward an economy featuring information and services put new demands on strategists. Now strategy was less about the future and long term goals and more about the customer. *What do those customers want?*

Precisely to the extent that the industrial economy succeeded in satisfying basic needs—for food, water and shelter—the center of gravity of the American economy shifted from the satisfaction of needs to the gratification of desires: From the realm of necessity to the realm of freedom. Now the heroes of the economy were no longer the engineers who could master the laws of the realm of necessity; now the heroes and heroines were the marketers and market researchers who could see outside the business and penetrate the souls of those finicky and fickle consumers. The center of gravity shifted from producer-push to consumer-pull; from an inside-out perspective to an outside-in perspective.

Where companies in the earlier era had optimized productivity to produce more of what they knew how to produce, then adopted a sales orientation to “push the metal” and lower inventories of their products, now the marketing revolution led by figures like Theodor Levitt argued that the sales orientation had it backwards: rather than first producing high volumes of a given product and then trying to sell it to customers, companies should first find out what customers want and then produce to their tastes. Competitive advantage is mainly about knowing many segments of customers, not about product attributes.

This shift has the structure of intentionality—two—reference or *aboutness*. The kind of strategy called for in this new environment has less to do with productivity and pushing product and more to do with *differentiation*, in two different senses.

- First, because the information and services economy gratifies unique whims and desires rather than satisfying universal needs, consumers are differentiated from one another into different consumer segments whose slicing and dicing is far more refined than “richer or poorer.” Crude demographic categories give way to subtler psychographic segmentation by values and lifestyles. With the advent of data mining and digitized customer relationship management, the segments can finally be refined to segments of one. What’s good for Peter is not necessarily good for Paul. The differentiation of consumer wants and desires gains ever higher resolution with each advance in marketers’ abilities to *pick out* a given consumer whim and *target* a product or service to that narrow slice of consumer demand. Just as a language with more words can pick out a greater variety of objects—namely, Inuit words for snow and Arabic words for sand—so the marketing revolution, and market-based strategies, are more successful than sales-oriented strategies at identifying and gratifying those narrow slices of demand. They know how to *refer* to their customers and *address* their wants and whims.

- Second, in addition to the differentiation of consumers, the marketing revolution coincided with the rise of competitive strategy. Its uncontested guru, Michael Porter, pointed out that in an environment characterized by over-capacity (following the triumph of the industrial era), firms needed to *differentiate*
themselves from one another in order to gain strategic advantage. Riding the declining tail of the industrial era, it would remain possible for some to compete on the basis of low cost; but for those who could not compete on cost, the only alternative was differentiation. Rather than producing more of the same, same, same, they had to innovate, and innovate again. They had to find the different, different, different. And woe to those who let themselves get caught between the two options of low cost producer or high end differentiator. The middle ground is a competitive killing field.

Here we see strategy evolving to meet its changing environment—the transition from the industrial economy to the information/services economy. And as we dig deeper into the relationships between strategy-two—the market-driven strategy of the information era—and intentionality-two, or referential intentionality, we see how this emphasis on differentiation is appropriate to the manipulation of bits of information just as an emphasis on standardization was appropriate to the manufacture of material goods.

Referential Intentionality and Market-Driven Strategy

*Picking out* and *targeting* are features of referential intentionality or *aboutness*. Words pick out their referents. Speech targets what it is about. Are there hints we can garner from the account of intentionality-two that can shed light on strategy-two? And conversely, are there activities in the inter-subjective, out-in-the-light-of-day practice of strategy-two that can shed light into the interior darkness of subjective intentionality?

Recall the basic logic of intentionality at the pre-biotic level of the autocell: its basic pre-conditions were *autocatalysis*, *containment*, and *natural selection*. Through successive generations of variation and selection, what was *inside* the autocell gained semantic reference to what was *outside* the autocell in the sense that evolutionary success cemented a semantic relationship between the inside and the outside. To repeat:

Think of each different lineage as more or less concordant with, or adapted to, its environment—as proven by the consequences of varying survival rates over successive generations. Each different lineage is, in a sense, a guess about what the environment will support or afford. As such, each different lineage “says something” about that environment—that it will support x, or y, or z. Correct guesses or “statements” survive; incorrect ones perish. It is in this sense that the differential survival rates of different lineages allow us to attribute *aboutness* to surviving lineages. They exhibit a semantic relationship to their environment.

Now think of the way new product development works in the fast-paced, hot-house environment of the information/services economy. No longer do we rely on long cycle-times beginning with market research, then design, then engineering, then the tool-and-die fashioning of goods, followed by marketing and sales, as if we could tell years in advance exactly what consumers would want years later at the end of this laborious new product cycle.
This rationalistic, instructional model that tries to get it right before coming to market is being replaced by a much more Darwinian, evolutionary model: Let a thousand prototypes bloom and we will see which survive. Innovate, innovate, innovate . . . and we will see what shoppers like. In place of a Teutonic, workman-like mentality that wants to perfect one product before going to market, we see a more playful, experimental mentality in books like Michael Shrage’s Serious Play. His mantra: prototype, prototype, prototype! For several years info-economy guru Esther Dyson was signing her e-mails with the tag line: “Make new mistakes faster.” Samsung’s pace of new introductions of handsets into the cell phone marketplace accelerated to a pace of a new entrant every two weeks. Benetton adjusts its orders for dyes upstream on the basis of downstream consumer color selections daily. The colors of Benetton are not, strictly speaking, planned. But a lot of planning was required in order to create the capacity to respond to the market so nimbly.

Samsung, Benetton, and others have made future-oriented strategic commitments to business processes that allow them to sense what their environments will afford (i.e., what their markets will bear). They have abandoned a sales-oriented, product-push, “push the metal” strategy, and they have adopted a market-oriented, outside-in, customer-sensitive approach.

But how can a company come to such strategic conclusions? Does it require a decision by the chairman or CEO? Framing the question in this way brings us to strategy-three. Are there insights to be derived by analogy with intentionality-three?

An obvious but inadequate response to this question would be to deconstruct “the ghost in the corporation” by analogy with the critique of “the ghost in the machine.” We might use Dennett’s arguments against “the central intender” to dismiss “the central strategist” at the pinnacle of corporate leadership. But doing so would run an analogical risk of throwing out the baby of leadership with the bath-water of patriarchal authority. There are some great leaders out there and, more important, the function of leadership and direction setting has an abiding importance that should not be dismissed in the name of anti-authoritarian egalitarianism.

So let’s get subtler. For a more refined approach to the question of how strategic decisions get made, the finer points of the intentionality debate will serve us well. While a singular source of leadership and decision-making is possible—namely, legendary figures like Jack Welch or Warren Buffett, or entrepreneurs like Steve Jobs or Bill Gates—the more typical process of decision making and direction setting is a team sport. Executive committees, investors, inventors, and boards of directors all exercise considerable power and influence over strategy. How do they do it?

While there’s no end of strategy manuals claiming to offer step-by-step, fool-proof methods for the development of strategy, what we are looking for here are analogues to the naturalistic, up-fro-the-bottom, self-organization of teleological behavior by autonomous agents. Recall: We want to test the initial hypothesis that strategy is the intentionality of an organization. And a major objective of this essay is to save the phenomenon of purposive rationality from the “Chapter
Two” enlightenment rationality that wants to relegate purpose and function to folk-psychology.

Just as it has been said that there is no such thing as free will, so it is maintained that there is no such thing as leadership. The behavior of an organization can be described “behavioristically,” namely, as a function of inputs and outputs arranged in causal sequences such that there is no need for the hypothesis of an autonomous leader calling the shots inside the black box of the organization.

The deconstruction of leadership can take several forms, just as the refutation of free will can take several forms.

- One way to downplay the role of leadership is to stress the importance of material conditions that dictate what an organization can and cannot accomplish. Sub-species of this approach include a Marxist stress on the structure of ownership of the means of production. Another sub-species would be the kind of cultural materialism reflected in the anthropology of Marvin Harris or Jared Diamond. Here you would explain all by reference to climate, to biological and geographical conditions. What did they have to eat? How did they hunt? Did they have the vitamins they needed to thrive as a culture?

- A second way to downplay the role of the leader is to stress the sheer complexity of conditions such that no general could actually pull off a rationally directed military campaign according to plan. This approach is beautifully represented in the epilogue to *War and Peace* where Tolstoy delivers a for-lack-of-a-horseshoe refutation of Carlyle’s “great man” approach to the philosophy of history.

- A third approach follows the postmodern attack on the authority of the author, as found, for example, in Edward Said’s book, *Beginnings*, as well as in the works of Paul de Man (e.g., *Blindness and Insight*). In this approach, there are “beginnings” but no origins. That is, creativity can happen. Innovation can occur. But that innovativeness and creativity is not to be attributed to the originality of an author, but instead to a novel mixture of psychological, economic, and cultural conditionings that just happen to pass through the site bearing the so-called author’s name.

- Fourth, and less philosophically, there’s a school of management literature that places much greater store in organizational *structure* and management *procedures* than in the creativity or whimsical authority of any top banana. Get the mission and structure of the firm in order, and pretty much any of a dozen or so properly trained people could be slotted into the role of figure-head.

Surely there are still other ways of down-playing the importance of leadership, but just these four give a sufficient range to show the variety of ways that leadership can be dismissed.

Just as strategy is the intentionality of an organization, so leadership plays the role of its free will, its capacity for the downward causality of mind over matter. Ideas *can* make a difference. Thought *can* redirect the course of an organization away from the path that mere momentum would carry it.
But, again, *how* does this thinking process happen if not in the mind of a solitary “inner strategist?” *How* does an organization self-organize to become a truly autonomous agent rather than a victim of external forces? And if it is self-organization we are talking about, how does the organization, like the autocell, organize itself *without* reliance on an “inner organizer” or a creator God? *These* are the questions that bring evolutionary theory and complexity theory to bear on the life of a company.

Just as we appealed to *autocatalysis*, *containment*, and *natural selection* as the key components providing the minimal conditions for purposive action by autonomous agents in Section One, so we can appeal to the same three concepts at the level of a business. Consider the following Silicon Valley drama:

Inventor A of some anti-spam software meets for lunch with entrepreneur B at the invitation of (catalytic) venture capitalist C. Their union produces a product, AB, whose by-product is some additional code, D, that turns out to be useful in creating firewalls. Catalyzed by the promise of D, software engineer E sees the opportunity and joins with entrepreneur F. They produce some software, named EF, whose by-product, profit G, is then reinvested by C into producing more of anti-spam software, AB. As it turns out, the firewall software, EF, protects the intellectual property produced by both firms. It functions as a virtual “container” that maintains the integrity of both firms’ intellectual property. Because intellectual property rights are a big deal in the dot.com economy, and the arms race between hackers and crackers on the one hand and security software designers on the other is constantly escalating, there’s a strong demand for both AB and EF in their several successive releases 2.0, 3.0... n.0. AB and EF evolve into lineages of successively more successful releases: A'B' and E'F', and A''B'' and E''F''... A'n'B'n and E'nF'n.

In the old, sales-oriented strategy of the industrial era, engineers tried to design products and services first, then pushed the metal later. In the new information and services economy where there is often an over-capacity of product, market-oriented strategies try to anticipate the fickleness and fragmentation of consumer desires. They then design processes—like Benetton’s—that can nimbly flex to accommodate rapid shifts in demand. Keeping up with the arms race against hackers and spammers is a constant and recurring battle.

Here leadership is less about commanding troops to parade in one direction or another; leadership is more about training troops for guerilla warfare. Leadership is less about coming up with ideas that everyone else must accept and follow, and more about creating the conditions for others to come up with their own ideas that are appropriate to the moment. Leadership is less about instructing others to follow your directions quarter after quarter and more about serving employees in ways that help them set their own directions day to day. How? By providing the nourishment, energy, and resources that will allow a company to survive competition and thrive as the least discordant remainder.

Our little drama about inventors, entrepreneurs, and venture capitalists in Silicon Valley has enough isomorphism with the logic of the autocell to encourage us to draw further on this extended analogy. But the hazard of analogical reasoning
lies in the danger of an overdraft. Surely there are limits to this analogy. We know this. But before abandoning it let’s test the limits by looking for insights that the analogy suggests.

Specifically, how does the naturalistic account of teleology in the intentionality debate support the creation of vision and purpose in the strategy debate? In Section One we saw how the semiotics of intentionality-two—referential intentionality—allowed for a naturalistic account of intentionality-one: purposive behavior. Causality does not have to run backwards with May’s flowers causing April’s showers. The pre-presentation of what the environment will afford allows one lineage of autocells to prevail over others precisely to the extent that what’s inside their containers is less discordant with what is outside in the environmental substrate than is the case for other lineages.

Carry this logic over to the business domain. Rather than imagining that the company has some inbuilt Aristotelian telos or entelechy—some essential destiny drawing it toward profitability—the company must self-organize its purpose or vision as it migrates upstream in a profitability gradient. Further, the process of self-organization need not rely on some single “inner intender,” the great leader. Yet leadership happens. Purposiveness occurs. Through a Darwinian process of innovation and selection, various product lines exhibit different degrees of fittedness to the market environment. Successful new product introductions say something about consumer demand, whether or not consumers have explicitly demanded those products. The success of new innovations depends on the affordances of the market environment—what consumers want and can afford.

Once we have left the agricultural era where basic nutrition was the goal, and the industrial era where the laws of physics and chemistry dictated the necessary and the possible; once most basic needs are satisfied and economic success depends on appealing to wants, whims and desires; once, in short, we leave the realm of necessity and enter the realm of freedom, then it is impossible to predict consumer demand. Before Xerox no one knew that people would want copying machines. In 1990 who knew about the Internet?

Given the fundamental uncertainties that pervade the future of a globalized information and services economy, the task of the strategist has less to do with plotting a course across a known terrain and more to do with setting a direction into the unknown. Clarity of strategic intent is critical. But how to support or validate that intent in the face of fundamental uncertainty about the future of the external environment?

One way is to rely on the passion of the entrepreneur. This path is perfectly legitimate for the small startup that has only one thing to sell. Single-minded focus on making and selling just one thing will suffice for small operations that have much to gain and little to lose. But for large corporations, “betting the farm” on one big idea is imprudent at best.

Another way for medium to large companies to set strategy in the face of uncertainty is to practice scenario planning. For lack of a credible single-point forecast (because the future is unpredictable), but needing to think ahead in any case, large corporations are turning to scenario planning as their most favored tool for steering their ways into uncertain futures. One advantage of scenario planning
over other forms of strategic planning lies in allowing decision makers to rehearse different futures in imagination before experiencing them in fact. Like a flight simulator, a set of scenarios allows executives to rehearse certain maneuvers in imagination without actually “crashing” the company. Let several futures bloom, and turn several different strategic options loose in those “niches.” Then stand back and watch to see which options survive in which niches. Such imaginative Darwinism allows managers a kind of anticipatory disaster avoidance. Better to experience potential disasters in imagination than to experience extinction in fact. And best of all, scenarios can reveal opportunities for some new ideas to thrive in environments or niches quite different from the present.

Now contrast these two different methods for determining strategic intent. The first looks very like intentionality-three. This strategy-three is the work of a central intender. The second looks more like a blending of intentionalities one and two: a generation of purpose by virtue of a mixing and matching of internal resources and external affordances.

Note: Four scenarios may be a wonderful thing, but four strategies are not. After having considered various future scenarios—because the future is not predictable—it is important to return to the present and establish a single strategy around which an entire organization can be aligned. Even an amoeba will suffer if it tries to go in several directions at once. Containment demands the preservation of one body, not two. Heading off in two directions at once will lead to mitosis in micro-organisms or divestiture in macro-organizations. More on this in the conclusion.

RETURNING THE FAVOR

The first section explored three types of intentionality. A major objective was to demonstrate the possibility of purposive intentionality-one without reliance on the central intender of intentionality-three. By relying on referential intentionality-two, the autocell achieved purpose and functionality without making causality run backwards as Aristotelian teleological reasoning seemed to require. The rationale for referential intentionality-two came from a Darwinian process requiring differential rates of survival among different lineages leading to a least discordant remainder whose insides “said something” about their external environments.

The second section explored three types of strategy by developing the analogy between the world of the autocell and the world of business. Finding analogues to autocatalysis, containment, and natural selection in the business world allows a reading of forward looking strategic leadership that does not require a central intender.

In this section I want to return the favor by reversing the direction of analogical reasoning. What can we learn from the world of strategic leadership that can shed light on the nature of subjective intentionality? Just as Plato developed his Republic as “the soul writ large” so that he could see more clearly the nature of justice in an individual soul, so we want to use the life of the company to explore the life of the individual. How can the development of strategic intent shed light on subjective intentionality?
The development and implementation of a forward-looking strategy by business leadership provides an excellent analogue for the operation of free will in the individual. In both cases we accomplish a downward causality of mind over matter. Ideas count. Ideas have causal efficacy. But, surprising as it may seem, this seemingly obvious idea is now fighting for its life and almost down for the count in the current arena of the philosophy of mind.

Very briefly, the argument goes something like this: If there were free will, it would have to look something like intentionality-three—an uncaused cause, an inner intender, a ghost in the machine who, like God, can create *ex nihilo* the intentions and actions of the individual. But this would be, as Spinoza argued, a “kingdom within a kingdom.” Or, as more modern theorists have protested, a violation of “causal closure.” Either the universe is deterministic—a world where effects have causes, and those causes have further causes—or we live in a world where something called free will amounts to a miracle that violates this causal closure.

The vast literature on free will divides into one group who think that free will is compatible with determinism—the compatibilists—and another group that argues that the very idea of free will is incompatible with determinism—the incompatibilists. One problem that the incompatibilists face is that if they agree that there can be one break with causal closure, namely a will that is undetermined by prior causes, then how can that will actually effect anything? If causality can be violated once, then why not twice, three times... such that when the will tries to make something happen, rather than setting in motion a reliable string of causes and effects, it finds itself *pushing on a string*, unable to reliably cause anything to happen. For this reason and others, the compatibilists generally hold the upper hand. But having agreed at the outset that the world is deterministic—that the future is therefore predetermined by the past—their attempts to save free will end up saving it in name only. Thus, for Dennett there’s no *real* intentionality—one or -two. Having eliminated intentionality-three as the ghost in the machine, he reduces the phenomena of intentionalities one and two to what he calls the *intentional stance*: acting as if we had intentionality or free will, but not really. It’s just a *stance—as if*.

So that’s the state of sophisticated play, and the rest of us who do not buy it are supposedly victims of a soon-to-be-antiquated “folk psychology.” But this is unsatisfactory. How can we save free will from the philosophers and neuroscientists? Not by introducing the evidence of introspection, whose reports from the dark interior of private subjectivity are famously unreliable. We can save it instead by showing how, out in the light of day of business strategy, leadership and the causal efficacy of ideas is possible; by finding in the objective, corporate, public realm an *existence proof* for the efficacy of ideas in the subjective, first person, private realm.

In the business world we now *know* that the future is unpredictable. Surprises abound. However much strategic planners may have once relied on single-point forecasts on which to base their plans, alternative scenarios spanning the range of real uncertainties are now the norm. This is as it should be, but it was not always so.
The positivist paradigm presupposed the predictability of the future. Such predictability was not just implicit but explicit in the famous fantasy of Laplace who hypothesized a super-intellect of such intelligence, and a total information awareness of such scope, that, given the position and velocity of every particle in the universe at any one time, the “Laplacean demon” could calculate the positions and velocities of all particles at any future time. Such a world has been described as “a block universe.” In technical terms, such a universe is known as *ergodic*. On a frictionless billiards table, once you set the balls in motion, sooner or later they will repeat the same trajectories. Such is the closed universe of a deterministic block universe.

According to such a worldview, subjective consciousness is an “epiphenomenon” of neuro-physiological reactions that can be explained by reduction via biology to chemistry, and via chemistry to physics. Subjective consciousness, according to this view, contributes no more to the course of events in the world than the whistle of a locomotive contributes to its speed.

There is no such thing as “free will” in such a deterministic universe. Human behavior is as fully determined by billiard ball-like interactions at the level of neuro-physiology as the seven-ball’s response to the impact of the cue ball. This nexus of positivist epistemology and materialistic-deterministic ontology has, despite its manifest absurdity, dominated most rigorous academic discourse ever since the rationalist Enlightenment. Why say, “despite its manifest absurdity”? Because, as Aristotle observed millennia ago, if you can predict the future, you cannot change it; and if you can change the future, you cannot predict it (see especially chapters 2, 5, 9, and 12). *This* is the paradox at the heart of any effort at strategic planning based on intelligence gathered with the assumptions of a positivist epistemology. Why engage in any planning whatever, strategic or otherwise, if everything is pre-determined? Strategy, like free will, must surrender to destiny.

It’s now clear that this positivistic, deterministic mental map is mistaken. Its refutation does not rely on Heisenberg’s Uncertainty Principle. Uncertainty intrudes *all the way up*, from quantum indeterminacy through Brownian movement and probabilistic thermodynamics to the stock market. At no level of granularity can contingency be expunged. The wonder of it is that *anything* is as predictable as celestial mechanics. True, we can predict solar and lunar eclipses with a high degree of accuracy. But the existence of such regularities at some levels of granularity should not obscure the degree to which entropy, disorder, and contingency color all aspects of existence. The contrary view—that causal closure dictates determinism *au fond* and that contingency is purely subjective—can now be dismissed as a pipedream of Enlightenment rationalism.

Returning to free will, this means that the controversy between the compatibilists and the incompatibilists is rendered moot because determinism is no longer an issue. Contingency is real. It is not just a matter of subjective uncertainty. The future’s uncertainty is objective. The future’s lack of determinacy is a large part of what differentiates it from the past. This is how time works, with the present marking the boundary between what has been, and is determinate, and that which
has not yet occurred and is as yet indeterminate. This difference sets the direction of “time’s arrow.”

What about causal efficacy though? Is there still a problem about “pushing on a string” if we abandon the deterministic metaphysics of Laplace and the positivists? Talk to many a Chief Executive Officer and you might come to believe that it’s not easy to get things done . . . but it is possible. Strategies get implemented. New products get developed. Acquisitions get made. And often this happens more or less according to plan. The best laid plans sometimes get side-swiped by reality: by competitors, or by consumers who refuse to purchase the new product. But the reality of agency at the macro-level of implementing business strategy shows us, out in the light of day, how (purposive) intentionality-one and (referential) intentionality-two combine to produce teleological behavior that depends neither on the kind of miraculous violation of causality characteristic of intentionality-three, nor on the total breakdown of causality captured in the image of pushing on a string.

In order to strike this reasonable, common sense balance between miraculous creatio ex nihilo by an inner deus ex machina on the one hand, or the total breakdown of causal efficacy and agency on the other, a close-up phenomenological examination of leadership in business puts the spotlight on the importance of followership. Lieutenants must follow orders. There must be something like a reliable chain of command. The CEO does not do it all her- or himself. Instead there is delegation. Once a direction has been set, others do the implementing. Even the setting of the direction is usually the work of a team. Once a plan has been developed and clearly articulated, then many people coöperate in its execution. Note: several people, not just one inner intender, collaborate to set a purposive strategy—the intentionality-one of the company. And once that strategy has been developed, it takes the form of a set of objectives that are communicated to others—a set of future goals and objectives incarnate in the present in the form of planning documents, memos, the entire paper flow involved in the planning process. Semiotic or referential intentionality-two in the far-from-paperless office is responsible for the felling of plenty of trees.

How does this examination of the development and exercise of strategy in business “return the favor” by illuminating the exercise of intentionality in the individual? By functioning as an existence proof for the sufficiency of intentionalities-one and -two without a need for that troublemaker, intentionality-three. The company is a site for the construction of final causes, teloi. There is nothing miraculous about this process. Causality does not run backwards, from the future to the present, from May’s flowers to April’s showers. Nor is there a need for some inner strategist from whose forehead whole planning documents spring as if from nowhere or nothing (ex nihilo). Instead a strategy team entertains different possibilities in different scenarios, chooses some over others, and communicates the relevant information to others to assist in implementing the plans. The process of deliberation, direction setting, and implementation in business has its direct analogues in the exercise of intentionality or free will in the individual. But in the case of the individual, the unreliability of introspection and our prejudices about the unity of the self have
obscured the complexity of intentionalities-one and -two by collapsing them into the purported unity of intentionality-three.

CONCLUSIONS FOR THREE AUDIENCES

Here at the end let’s observe the mutual illumination between the realms of philosophy and business by drawing conclusions first for the philosophers, second for business people, and finally for the miniscule join, those few who are members of both sets.

For the Philosophers

No one saw more clearly than Nietzsche the set of related insights that have been developed here:

- The complexity of so-called free will
- The importance of followership to an understanding of leadership
- The usefulness of looking outwards toward “a social structure composed of many ‘souls’” in order to clarify what is going on inside in acts of intentionality.

So by way of conclusion and summary, let me simply quote at length almost the entirety of Paragraph 19 of Beyond Good and Evil:

Willing seems to me to be above all something complicated, something that is a unit only as a word . . . [I]n all willing there is, first, a plurality of sensations, namely the sensation of the state “away from which,” the sensation of the state “towards which,” the sensations of this “from” and “towards” themselves, and then also an accompanying muscular sensation, which, even without our putting into motion “arms and legs,” begins its action by force of habit as soon as we “will” anything.

Therefore, just as sensations (and indeed many kinds of sensations) are to be recognized as ingredients of the will, so, secondly, should thinking also: in every act of the will there is a ruling thought—let us not imagine it possible to sever this thought from the “willing,” as if any will would then remain over!

Third, the will is not only a complex of sensation and thinking, but it is above all an affect, and specifically the affect of the command. That which is termed “freedom of the will” is essentially the affect of superiority in relation to him who must obey: “I am free, ‘he’ must obey”—this consciousness is inherent in every will; and equally so the straining of the attention, the straight look that fixes itself exclusively on one aim, the unconditional evaluation that “this and nothing else is necessary now,” the inward certainty that obedience will be rendered—and whatever else belongs to the position of the commander. A man who wills commands something within himself that renders obedience, or that he believes renders obedience.
But now let us notice what is strangest about the will—this manifold thing for which the people have only one word: inasmuch as in the given circumstances we are at the same time the commanding and the obeying parties, and as the obeying party we know the sensations of constraint, impulsion, pressure, resistance, and motion, which usually begin immediately after the act of will; inasmuch as, on the other hand, we are accustomed to disregard this duality, and to deceive ourselves about it by means of the synthetic concept “I,” a whole series of erroneous conclusions, and consequently of false evaluations of the will itself, has become attached to the act of willing—to such a degree that he who wills believes sincerely that willing suffices for action. Since in the great majority of cases there has been exercise of will only when the effect of the command—that is, obedience; that is, the action—was to be expected, the appearance has translated itself into the feeling, as if there were a necessity of effect. In short, he who wills believes with a fair amount of certainty that will and action are somehow one; he ascribes the success, the carrying out of the willing, to the will itself, and thereby enjoys an increase of the sensation of power which accompanies success.

“For freedom of the will”—that is the expression for the complex state of delight of the person exercising volition, who commands and at the same time identifies himself with the executor of the order—who, as such, enjoys also the triumph over obstacles, but thinks within himself that it was really his will itself that overcame them. In this way the person exercising volition adds the feelings of delight of his successful executive instruments, the useful “underwills” or undersouls—indeed, our body is but a social structure composed of many souls—to his feelings of delight as commander. L’effet c’est moi, what happens here is what happens in every well-constructed and happy commonwealth; namely, the governing class identifies itself with the successes of the commonwealth. In all willing it is absolutely a question of commanding and obeying, on the basis, as already said, of a social structure composed of many “souls.” (Nietzsche 1966, pp. 25–27)

Nietzsche nailed it! But his dense explication of free will in this passage is almost bound to elude understanding without the kind of extended shuttling between the private realm of subjectivity and the public realm of business leadership we have traversed in this essay.

For the Business Strategists

What does all of this mean for what we do on Monday? What are the takeaways that might make a difference in how we create and implement strategy?

First, least interesting, but important anyway, this essay should reinforce the platitude: Get close to your customers. Rather than trusting the desk-bound staff of the corporate strategic planning office, much less the fertile forehead of a single, chief, inner strategist, it’s important to test, and test again, what the market wants and can afford. Bacteria do it. Evolution does it. And well-informed scenario planning will allow you to do it imaginatively and at lower cost than building and testing endless actual prototypes.

Second, the import of this essay should lend a new importance to the clarity and strength of strategic intent. The italics are important. The point is that having
some sort of carefully calculated plan—the much vaunted “strategic plan” covering pages and pages of paper—is less important than what coaches talk about as desire. The effective leader must instill in the troops the desire to win. Featuring the importance of desire in the fashioning and implementation of strategic intent is valuable as an antidote or corrective to the apparently passive, outside-in perspective that guides the early stages of scenario planning. Precisely to the extent that scenario planning excels at organizing an outside-in perspective (what Nietzsche called the “towards which”), it risks downplaying the equally important inside-out, away-from-which perspective—so much so that scenario planning sometimes gets accused of being too passive, too intellectual, not sufficiently active or decisive. While you can see why people might make this charge—for the reasons just given—the charge is mistaken if, but only if, scenario planners see their work as incomplete without a final commitment to action. If scenario planners and market-driven strategists dwell on the outside-in vortex of information from outside the membrane or boundary of the company; if they then become overly preoccupied with the articulation of several different scenarios of what could happen in that environment; they must then reverse that perspective and turn to the inside-out, from-which stance of the commander. Once you have entertained a range of options across a range of possible future conditions, then you should be prepared to pick one course of action. Do not try to pick one world, one most likely scenario. Worlds do not get chosen; they happen to us, outside-in. But strategies can get chosen from multiple options, and once a strategy is chosen, it makes all the difference in the world how much you want the outcome of that chosen course of action. As Nietzsche put it, look for “the straining of the attention, the straight look that fixes itself exclusively on one aim, the unconditional evaluation that ‘this and nothing else is necessary now’.” The intensity of your strategic intent is important to ensuring the realization of your desired outcome.

Third, desire alone is not enough. There must be a clear sense of direction around which an organization can become aligned—lest the organization diffuse in several directions like an amoeba prior to mitosis. Nietzsche again: “just as sensations (and indeed many kinds of sensations) are to be recognized as ingredients of the will, so . . . should thinking also: in every act of the will there is a ruling thought—let us not imagine it possible to sever this thought from the ‘willing,’ as if any will would then remain over!” You must capture the outside-in, towards-which perspective by listening to your customers and framing several scenarios; you must balance that with the inside-out, away-from-which perspective that has the commander’s affect of strategic intent; and you must do all of this thoughtfully, not willy-nilly.

Fourth and finally, earlier in this essay promises were made about using these ideas about intentionality to derive thoughts about how strategy should evolve. Just as a producer-push, push the metal approach seemed well adapted to most niches in an industrial economy, and a consumer-pull, market-driven approach is better adapted to an information/services economy, what does this essay suggest about what the strategy development process should look like in an increasingly fast-moving, increasingly uncertain, globalized economy?
For Business Philosophers

Although I have never been able to find the exact quote in Plato’s dialogues, it is part of the oral tradition among philosophers that Socrates once said, “Philosophy bakes no bread.” Another version: “The philosopher does not know the way to the marketplace.” It is written of the pre-Socratic philosopher, Thales, that once upon a time while walking along and pondering the heavens, he fell down a well. As opposed to pragmatic business people who know where the rubber meets the road, philosophers supposedly tell us where the rubber meets the sky. These stereotypes must stop.

Quine, Putnam, and Rorty have taught us to question the finality of the distinction between empirical truths and purely conceptual truths. Recent philosophy of mind has taught us the need for learning a thing or two about neurophysiology. Both Stewart Kauffman and Terrence Deacon, the heroes of the second section of this essay, have paid their dues as bench scientists in the laboratory. It’s time to send packing the old stereotypes of disengaged dreamers. Business philosophers, you intrepid few, you have work to do!

The job of philosophy in the marketplace is, I think, especially important as we make our way from what I described as Chapter Two through a historical transition to Chapter Three: From the essentially nihilistic order of purposeless matter in motion in space and time bequeathed to us by Enlightenment rationalism . . . to a new order where, as Heidegger would put it under the influence of Nietzsche, the destruction of the tradition of western metaphysics is giving way to what I would like to call metabiology.

Wilfred Sellars, following Quine, insisted that physics is the measure of what is, that it is, and of what is not, that it is not. If Chapter One featured a tree of knowledge and a “great chain of being” joining earthly things to heavenly ideas and ideals, then Chapter Two gave us a stolid pyramid whose foundation was mathematical physics, to which chemistry could be reduced, to which biology could in turn be reduced, to which psychology and sociology could ultimately be reduced. In Chapter Two, the very small is the really real. Everything else is epi-phenomenal—apparent phenomena over and on top of the really real at the bottom of the pyramid—and, as Nobel Laureate Steven Weinberg puts it, all of the explanatory arrows point down. Further, “The more the universe seems comprehensible, the more it seems pointless.”

We now live in a time when vast numbers of people are rejecting this vision of the world outright. The growing number of fundamentalists and religious extremists and the not so subtle suspicion of science in the administration of George W. Bush both attest to a visceral if uninformed rejection of the nihilistic metaphysics of Chapter Two. And we know too much to go back to Chapter One.

The way forward toward Chapter Three calls for an empirically informed worldly philosophy, a philosophy that knows its way to the marketplace, a philosophy that bakes bread. Business is where the action is in today’s advanced economies. The end of the Cold War and the trend toward privatization of state owned enterprises bespeaks a recognition that command/control economies cannot compete with democratic capitalism. But democratic capitalism in the form
of the so-called Washington Consensus is now experiencing strong pushback in Latin America, China, and Russia. Wild West, laissez-faire, market fundamentalism, as the hackneyed maxim has it, “knows the price of everything and the value of nothing.” We business philosophers have a job to do to find a path between antiscientific religious extremism on the one hand and a secular, nihilistic modernity on the other.

Business is the metabolism of our well being. If business is about delivering the goods, we better know the good. The path toward creating economic value begins and ends with values. But our Chapter Two metaphysics is incapable of validating values.

Rather than explaining away consciousness and intentionality, or reducing the religious impulse to genetic determinism as the “new atheists” seem to want to do, business philosophers can perform a service as important as that of bench scientists. We need to keep our feet planted firmly on the ground of the marketplace while thinking hard about a new metabiology (in place of the old, deterministic metaphysics). We have perfectly naturalistic explanations for the emergence of teloi from complex molecules. Purposes need not be pipe dreams. With a better understanding of the ways that purposes come to be in the world—through strategy and intentionality—we can both create value and give meaning to the lives of our employees, ourselves, and our customers.

NOTES

1. For an elegant and persuasive account of this recovery, see Searle (2007). Searle’s entire body of work is highly relevant to the subject of this article.
3. Cf. the 2000 survey of 183 corporations conducted by The corporate Strategy Board showing that scenario planning is the most favored of seven different tools for thinking about the future. “Introduction to Scenarios,” Power Point Presentation, Global Business Network, San Francisco, CA
4. For more on time’s arrow and the unpredictability of the future, see Prigogine (1980, 1996, 2003).

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