

The following is a highlighted summary of the book, Driven, published by Jossey-Bass. The statements below are key points of the book as determined by James Altfeld and have been made available at no charge to the user.

Driven

By

Lawrence Nohria

Drives and Survival

The drive for immediate gratification or acquisition may partly explain the short-term thinking that seems to plague managers of business organizations. It's easy to think of instances when managers have chosen a course of action that leads to immediate returns rather than a strategy that would produce greater returns in the long term. This has been observed, for example, in the field of organization change. Managers are more inclined to take short-term measures to improve firm performance—such as downsizing, or acquiring or divesting companies—than they are to undertake longer-term adaptive actions, such as investing in changing the culture of their firm.

Relative Status Beats Absolute Well-Being

A relentless focus on relative position seems more like a recipe for unhappiness than a useful motivational tool. Atlas, from an evolutionary perspective, Frank argues, the “purpose of human motivation is not make us happy but to make us more likely to succeed against the competition.”

Positive and Negative Consequences of the Drive to Acquire

Ambition and envy, two of the most powerful human passions, both stem from our drive to acquire more than others. Ambition is the positive manifestation of this drive. It is the passion, the will and determination to do better, to achieve more, to rise in the status hierarchies that are ubiquitous in all field of human endeavor. Our evolutionary heritage not only goads us to achieve more for ourselves, it warns us to beware the success of others. Envy is thus the negative manifestation of the drive to acquire.

The drive to improve relative ranking can have productive or deleterious consequences. Leaders of business organizations have long tried to harness this drive to get the most out

of their employees. Most corporate mission statements rally their employees to the cause of becoming the leading company in their industry. One of the best-known examples is the former motto of Avis, the second largest U.S. car rental company: Being number two, “We try harder.” When stoked in this way, the drive to improve relative standing can be quite productive.

But the same drive can also lead to cut-throat competition.

In North America, for instance, 73 percent of the large mammal population—including grand bison, wild horse, short-faced bear, mammoth, mastodon, saber-toothed cat, giant ground sloth, and wild camel—were quickly eradicated as human populations grew. In South America, 80 percent of the large-mammal genera were soon extinct.

In a battle for relative gain, human ancestors showed little restraint. They were forced to kill today rather than wait for tomorrow for fear that if they waited, their prey would be killed by their competitors.

The difficulties surrounding the implementation of the Kyoto accord that called for reducing greenhouse gas emissions reflect our continuing inability to restrain ourselves when we think others might get ahead, even though the consequences might be collective disaster—in the instance, widespread global warming.

The drive to acquire more relative to others is probably at the root of the many atrocities human beings have conducted against each other.

Competition and Cooperation

Relative ranking is a zero-sum game. As you move up in any ranking hierarchy, be it in sports, the corporate ladder, the Forbes list of wealthiest people, or in the collection of rare paintings and artifacts, someone else moves down. The drive to acquire thus naturally leads to competition.

...humans have an innate skill set for defining what is owned by them as distinct from what is owned by others, and how such objects can be traded. The cultural institutions of property rights, currencies such as money that enable exchange beyond barter, and marketplaces that enable buyers and sellers to discover each other, have greatly facilitated satisfying the drive to acquire.

The Drive to bond (D2)

In the heart of Dorchester, a lower-income neighborhood in Boston, a Catholic priest has initiated a simple way to try building a close-knit community from a highly fragmented one. After church every Sunday he began passing a hat and urging people, whether Catholic or not, to put their name in and later draw out another person's name. He asked the "partners" randomly selected in this way to find a time to sit down and talk with each other for thirty to forty-five minutes over a cup of coffee or tea, and suggested that they tell one another something of their life story and about the things that weighed most heavily on their shoulders. That was all there was to it.

This one-on-one community-building campaign has generated hundreds of conversations. It has made friends of strangers and allies of people who thought they had nothing in common. The priest comments, "We were sitting on a gold mine all the time and now we have struck gold."

...all humans, share an innate drive to bond.

"how selfish so ever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, through he derives nothing from it except the pleasure of seeing it. Albert Hirschman, in *Passions and the Interests*.

Evidence for the Drive to bond

The bonding drive is associated with terms like love, caring, trusts, empathy, compassion, belonging, friendship, fairness, loyalty, respect, partnership, and alliance. This drive draws humans into cooperation with others. It has the potential of being a non-zero-sum game, with all parties being winners.

Baumeister and Leary define the "need to belong" as "a pervasive drive to form and maintain at least a minimum quantity of lasting, positive and significant interpersonal relationships." We use the term bond rather than their belong advisedly, because the former clarifies the mutuality of the commitment, the "sticking together" that is essential for its survival power.

"People seem widely and strongly inclined to form social relationships quite easily without any special circumstances or ulterior motives. Group allegiance seems to arise spontaneously and readily, without needing evidence of material advantage.

...people strongly and generally resist the dissolution of relationships and social bonds.

..anyone who knows someone who has been laid off from a firm such as IBM, once well known for its tradition of loyalty toward its employees. When these bonds are severed, people report experiencing a deep sense of betrayal. They are shocked and angry.

...rather than feeling happy, survivors suffer from acute feelings of guilt, owing to sympathy for those who have been laid off. Managers entrusted with the task of conducting layoffs also report feeling burnt out by the process.

Baumeister and Leary conclude, “Many of the strongest emotions people experience, both positive and negative, are linked to belongingness. Evidence suggests a general conclusion that being accepted, included, or welcomed leads to a variety of positive emotions.

“Deprivation of stable, good relationships has been linked to a large array of aversive and pathological consequences.”

“the desire for interpersonal attachment may well be one of the most far-reaching and integrative constructs currently available to understand human nature.”

Evolution and Independence of the Drive to Bond

Bateson, in “the Biological Evolution of Cooperation and Trust,” states that “cooperative behavior has evolved because those who did it were more likely to survive as individuals and reproduce than those who did not.” The innate nature of bonding and group life has been further carefully studied by Frans de Waal in *Good Natured: The Origins of Right and Wrong in Humans and Other Animals*. To quote him, “If group life is based on a social contract, it is drawn up and signed not by individual parties, but by Mother Nature. And she signs only if fitness increases through association with others, that is, if sociable individuals leave more progeny than do solitary individuals. We are seeing how social tendencies came into existence—via a genetic calculus rather than a rational choice. One cannot decide to become what one already is.”

...an expert hunter who shares the meat could well have more offspring than others. Such practices that promote reproductive success have been widely reported in contemporary hunter-gatherer groups both to reinforce pro-group behavior and sanction anti-group behavior.

It seems likely that during our recent evolutionary history, there has been strong selection on our ancestors to develop a variety of reciprocal interactions.

Humans routinely help each other in times of danger. We routinely share food; we help the sick, the wounded, and the very young. We routinely share our tools, and we share our knowledge in a very complex way.

Liking is the emotion that initiates and maintains the process. It indicates a willingness to offer a favor to another who seems willing, in time, to offer one back. Anger protects a person whose niceness has left vulnerable to being cheated. Gratitude calibrates the desire to reciprocate according to the benefits of the original act. Guilt can rack a cheater who is in danger of being found out. Shame is the emotion evoked by public disclosure of cheating.

Humans have evolved, unlike other primates, to be uniquely choosy about mates. A female chimp is keen to mate with many different males in the troop. A female gorilla is happy to mate with the head male in her troop. Both chimp and gorilla males will mate with any females in heat that they can find. The mating pattern among humans is distinctly different. Given the large brain that humans evolved, they are born in a less developed condition than their primate cousins and require intensive care for a much longer period. Given the bodily commitment that women have to carrying, birthing, and nursing infants, they, or at least their genes, had a big stake in selecting mates who would be supportive fathers and successful food providers. So women would have tended to select husbands who showed promise in this regard, using such indicators as intelligence, wealth, and credible promises of faithfulness. Monogamy evolved to become the mating pattern, with some exceptions, among humans. Meanwhile the genes in men would have tended to bias their selection toward females who appeared young and healthy, who were, on average, going to have more children.

After all, the most convincing promise of lasting care and fidelity is one that is based on the sincere bond of love, not on the short-term motive of sexual pleasure.

The bonding drive provided the glue that first made larger organizations like tribes possible.

Bonding in Relation to Acquiring

Bonding is fundamentally different from acquiring, since it can only be fulfilled with another human who is acting voluntarily. The bond must be mutual and have some degree of commitment...

Everyone can remember situation when the drive to acquire came into clear-cut conflict with the drive to bond.

Will you squeal on a friend for a substantial monetary reward? Will you lay off long-term employees to keep from going into the red?

There are other situations in which the drives to acquire and to bond work together, to complement rather than conflict with each other. A prime example is team sports,.

And well-bonded teams can often beat teams consisting of individual stars who are not well bonded. The popularity of team sports throughout human history may well be explained by the unique opportunity that these situations provide to satisfy both the drive to acquire and the drive to bond.

As the Irish saying goes, “The world for me has no strangers, only friends I haven’t met.”

Wright’s analysis of chimpanzee behavior suggests that they lack, for all intents and purposes, genetically based moral tendencies other than mother-infant bonding. If this were also true of humans, then culture would have to provide a very substantial moral code to compensate. The moral codes built into human genes, by contrast, can be much more enduring and trustworthy. We, as humans, can be thankful that our strong bonding drives generate the need for basic moral skills as a means of fulfilling the drive. This combination contributes in a significant way to making humans unique.

So, on this subject of social instincts and derived morals Darwin is very clear. To our argument that morals evolved as a skill set that enabled successful bonding, he added a very important point—that a strong memory of the past and an imagination about the future would not only be necessary for the emergence of morals, but would make them inevitable.

Bonding and Organizational Life

Because organizations are made up of humans, they can be thought of in human terms with few, if any, serious errors. Organizations do display persistent behavior patterns that in individuals reflect personality traits. Even the law defines corporations as individual actors.

The fact that workers exert less effort than their maximum, economists argue, affirms the self-interested view of human behavior.

Why do they exert any more effort than the minimum that can be monitored and enforced? He reminds us that one of the oldest and most devastating forms of worker protest is work-to-rule.

Simon observes, what is far more impressive is not how much shirking there is but how much extra effort people in fact contribute to the success of the organizations to which they belong.

...a more complete model of human behavior would include the drive to bond in addition to the more self-interested drive to acquire.

The bonding of individuals to organizational collectives is an ancient and strong pattern in human history. Humans are notorious joiners.

There were based on an in-group that lived and worked together, shared many resources, and together defended against predators. Other troops the “strangers over the hill,” were an out-group with whom one’s own group did trading and, at times, raiding or fighting for scarce resources.

The Dark Side of the Drive to Bond

The most famous lawgiver in the Judeo-Christian tradition, Moses, proves a clear example. He brought the Ten commandments down from the mountaintop. Those rules, we submit, have met the test of time because they are rules that best ensure that humans can achieve lasting bonds with others. It is also noteworthy that Moses applied these rules only to his fellow tribesmen, the Israelites. The Biblical record shows that Moses had other rules for non-Israelites. The Biblical passage in Numbers 31 recounts the outcome: “And they warred against the Midianites, as the LORD commanded Moses; and they slew all the males. And the children of Israel took all the women of Midian captives, and their little ones, and took the spoil of all their cattle, and all their flocks, and all their goods. And they burnt all their cities wherein process with the Midianites. The Midianties were thus something less than truly human, beyond the rules for bonding of the Ten Commandments. And the nastiest part of Moses’ message was still to come. When he learned that his soldiers had spared all the women and children, he was furious with them. He said, “Now therefore kill every male among the little ones, and kill every woman that hath known man by lying with him. But all the women Children, that have not known a man by lying with him, keep alive for yourselves.” Surely this was genocide. And it was committed under orders from the great lawgiver.

One of the simplest but most far-reaching skill sets that seems to be innate in humans in support of the drive to bond is the skill of making a distinction between “us” and “them.”

“Societies everywhere break people into in-group versus out-group. They fortify the boundaries of each division with taboo and ritual. To change from one division to the other requires initiation ceremonies, weddings, blessings, ordinations, and other rites of passage that mark every culture.

This represents a very dark side of human nature. Genocide has been a major stain on all human history.

We believe there is no evidence that humans require an “enemy other” to facilitate bonding with another individual or an entire group.

The Drive to learn (D3)

Curiosity is one of the permanent and certain characteristics of a vigorous mind...Samuel Johnson

The natural thirst that is never quenched is the thirst for knowledge...Dante Alighieri

Conventional wisdom and the Drive to learn

The social sciences generally teach two basic points about learning. One is that the newborn mind is similar to a capacious but empty sponge. Although empty of content, it comes equipped to soak up an enormous amount of information delivered by parents, peers, schools, churches, media, and so on. The second point is that the child’s motivation for absorbing this knowledge is self interest—in our terms, its innate drive to acquire objects and experiences that have value. We hope largely to displace both of these ideas.

Defining the Drive to learn

Humans have an innate drive to satisfy their curiosity, to know, to comprehend, to believe, to appreciate, to develop understandings or representations of their environment and of themselves through a reflective process: the drive to learn.

The drive to learn is expressed in consciousness by an emotion variously labeled inquisitiveness, wonder, and curiosity. It pushes humans to collect information.

People puzzle over causes and effects. They want to know how things work. This drive to satisfied by a feeling of understanding, a feeling that things make sense. It is energized by mankind's insatiable curiosity.

Knowledge, since it can be given to another without any loss of knowledge by the giver, has the great advantage that it can be disseminated on a relatively cost-free basis, in a non-zero-sum game.

One can say accordingly that every human is an informal scientist, and that the species has been evolving a collective body of knowledge at least since the basic structure of the human brain emerged.

Evidence of the Drive to Learn via Curiosity

Aristotle saw curiosity as a desire for information that leads humans to study science for intrinsic reasons and "not for any utilitarian end." Cicero referred to curiosity as an "innate love of learning and of knowledge...without the lure of any profit."

As a pioneer of the entire field of psychology, William James viewed curiosity as an emotion that was closely associated with fear. He described animals making a fearful and tentative approach toward an object that seemed to be arousing intense curiosity. He proposed that "scientific curiosity" arose from "an inconsistency or a gap in...knowledge.

Piaget, the child psychologist, and Hebb, an experimental psychologist, came to similar conclusions from different starting points. They concluded that curiosity reflected a natural human tendency to make sense of the world that is activated by violated expectations. And this all brings us back to James and his notion of inconsistency—a gap in knowledge.

In summary, the theory proposes that individuals start with what they previously know (or think they know) on a given topic. When they encounter an external observation that is perceived to be inconsistent with what is know, a gap is generated that is immediately experienced as an unpleasant sensation that they feel driven to remove. This sensation occurs whether or not they ran into the observation by chance or whether they sought it out to relieve boredom.

This explanation of the learning process throws light on how specializations in certain kinds of knowledge emerge. It has been found by laboratory experiments that the more complete a subject's knowledge of a given subject, the more likely the subject is to recognize an inconsistent new observation and to become curious about the resulting gap.

So such persons are drawn to add to their understanding of the subject, thus becoming more specialized.

In other words, people with a stronger innate skill set for numbers are more likely to specialize in mathematics.

Evidence of the Independence of the Learning Drive

Many other kinds of animals exhibit learning behavior, but in no other animal is it nearly as strong and flexible a drive. This is undoubtedly related to the fact that no other mammal's brain is such a significant percentage of its body weight.

“Consider the intensity with which contemporary humans pursue mysteries, scientific discoveries, puzzles, and humor, and the elation that a solution provides. The apocryphal story of Archimedes running naked through the street yelling “Eureka!” captures this experience well. The positive emotions associated with such insights implicate more than just a cognitive act.”

Learning and building collective Knowledge

Given the drive to bond, it is to be expected that people will want to share their proudly earned views of the world with their bonded friends and allies. Everyone believes their insights will be helpful so they offer them freely. In the process, these interpretations of the world enter the collective domain of knowledge.

Such ideas are subject to change over time by the testing of natural selection. If they do not prove useful to others, they will soon be forgotten.

No human group has been discovered that does not have a set of religious beliefs. This fact, by itself, is strong evidence of the existence of an independent drive to learn, to make sense of the world. Other mammals show no evidence of having a religion. While they certainly display curiosity, they have no strong, independent drive to learn and no capacity to employ abstract symbolization. Given their mental capacity, it is inevitable that humans would turn to the supernatural to find answers to compelling questions for which they have no natural answers.

Scientists operate on the belief that all phenomena can eventually be understood with natural, materialistic explanations.

Science operates on the basis of testing hypotheses against empirical data; religion operates on the basis of received faith. This difference in method is what places science in continuing conflict with religion.

As the learning drive is met, humans develop the ability to anticipate with some accuracy in the world around them and the likely consequences of their own actions.

Reasonable success in making predictions support—in fact is essential to—humans' efforts to fulfill their drives to acquire and to bond.

Learning can take place the organizational level as well as the individual level. The drive to learn plays a major role in the life of every organization.

Organizational members conduct ongoing discussions about their organization's features and the viability of their strategies for adapting successfully to their environment. If these consensual theories of action are not making reasonably accurate predictions, the organization will probably not survive, and neither will its members' theories. As an extreme case, consider the short-lived theories of the heavens Gate cult in Rancho Santa Fe, which incorrectly predicted the end of the world with the arrival of Haley's comet. Many less dramatic examples from the world of business of mistaken theories come readily to mind—think of the stock market value of dot-coms with market share but no revenue. The mental representations people create may well be felt to be meaningful if they are internally consistent, but they will not aid human survival or organizational survival, and will not themselves survive, if they are not reasonably accurate representations of the objective environment.

The drive to acquire is usually a win-lose game because of the scarcity of resources involved. The drive to bond is usually a win-win game to insiders because of its potential for enhancing benefits to both parties through teamwork, specialization, and exchange of goods. The drive to learn has the potential to be nearly cost-free to the giver of knowledge and a win for the receiver—but this is certainly not always realized.

Herbert Simon commented that through scientific inquiry, “scientists are relieved of the itch of curiosity that constantly torments them.”

Learning and Symbolization

In the course of humans' development as a species, knowledge was probably initially spread from person to person by the process of imitation, copying based on the most obvious or proximate causes of desirable and undesirable outcomes. Later, with the

development of language, humans could speed up the spread of knowledge by word of mouth, through stories and myths. Only later, by searching for underlying or more nearly ultimate causes of events, did humans acquire theoretical or systematic scientific knowledge.

The Learning Drive and Innate Skill Sets

For example, it has been learned that people grasp probability theory quickly if it is embedded in a human story, but they find it difficult to learn when taught as an abstract principle. With knowledge of the existence of such a story-based skill, teachers can more readily teach probability theory.

Psychologists have postulated a variety of human motives and needs that can well be considered derivative of the drive to learn. Consider the following needs: competence, growth, achievement, mastery, creativity and efficacy.

The drive to learn, as a key part of four-drive theory, pulls this motivation literature together and anchors it on biological human nature.

As Charlie Chaplin pointed out in the movie *Modern Times*, Humans are not adequately motivated simply by the higher pay these jobs often offer. They cannot check their drive to learn at the door when they enter the workplace. The inability to satisfy their drive to learn at work will frustrate them. If they find no outlet to exercise this drive at work, they are apt to turn their energies to finding inventive ways to frustrate management intentions.

Jobs are clearly more satisfying if they provide an opportunity to fulfill the drive to learn.

Jack Welch, said “when workers were given a real opportunity to contribute their ideas about how to improve productivity, what they found was that they didn’t have just a small number of ideas. Almost 100% of the ideas we have implemented that have led to the enormous productivity gains we have seen have come from our workers.”

“Sometimes people ask me if there are any limits to productivity. Have we not squeezed out every ounce of savings that are possible? I tell them: productivity improvements are limitless. There is no limit to human ingenuity. Every day someone finds a better way of doing things.” This drive to learn is at the root of much human progress.

Put simply, the drive to learn is a fundamental aspect of human behavior that is independent of other drives.

The Dark Side of the Drive to Learn

Failing to understand the consequences of our inventions while we are in the rapture of discovery and innovation seems to be a common fault of scientists and technologists; we have long been driven by the overarching desire to know that is the nature of science's quest, not stopping to notice that the progress to newer and more powerful technologies can take on a life of its own." We experienced the dangers of this unquestioned drive to learn with the Manhattan project and nuclear technology. As we embrace genetic cloning, nanotechnology, and other new technologies we might unwittingly find ourselves in similarly dangerous territory. The dark side of the drive to learn is that we can learn to destroy humanity itself.

The Drive to Defend

Here's a mental experiment. Given a set of cards that have letters on one side and numbers on the other, the idea is to test whether the following statement is true: "If a card has a D on one side, it has a 3 on the other." Which of these cards would you need to turn over?

The correct answer is D and 7. The 3 card is irrelevant; the rule said that D's have 3's, not that 3's have D's. The 7 card is crucial; if it has a D on the other side, the rule would be dead.

Overview of the Drive to Defend

Humans have an innate drive to defend themselves and their valued accomplishments whenever they perceive them to be endangered. The fundamental emotion manifested by this subconscious drive is alarm, which in turn triggers fear or anger. The drive to defend has been selected for in the course of evolution as essential for survival of the genes.

Probably the first function of the primitive central nervous system in multi-cellular creatures was to mobilize a systemic reaction to signals of external threats of harm.

The drive to defend began to evolve secondary emotions and skill sets focused around the defense of acquisitions.

The emotions aroused are experienced as fear escalating to terror, anger escalating to rage, loss escalating to despair, anxiety escalating to panic, loneliness escalating to depression.

Regardless of the answers to these questions, it seems to be true that whenever humans experience extreme threats to their valued achievements, a pain avoidance reflex is activated by the amygdale, and humans experience intense fear or anger that is characterized by flight or fight, in a state of at least temporary irrationality. This is a fundamental, inborn reflex mechanism that seems to temporarily shut down the ability of the cortex to operate rationally in pursuit of the other three drives. It can be thought of as the coping mechanism of last resort.

The pain-avoidance mechanism accounts for the evidence that some human behavior seems to be irrational, in the sense of being self-defeating in terms of achieving goals set by the drives to acquire, bond, and learn. In the early stages of human development this reflex must have aided survival in a crisis by chemically activating and energizing the body's physical defense mechanisms. In the modern context it almost always causes harm.

The Drive to Defend in Relation to the Other Drives

One feature of the drive to defend that clearly distinguishes it from the other three drives is that it is always reactive. The other drives, in contrast, are always proactive in the sense that they activate searching behavior, the seeking of some desired object, experience, or condition. Drive 4 keeps people alert to threats but obviously does not seek them—it provides an instinctive urge to avoid them.

The Drive to Defend in Interaction with the Drive to Acquire

Individual Level. When triggered by a specific threat the response is glandular and muscular as well as mental. Heartbeat increases, adrenal and other glands become active, muscles tense, sense organs go on full alert, and so on.

The preferred response to such threats is usually to flee, to retreat, to seek shelter, and generally avoid the threat. The secondary response is to fight back, to attack and overcome the threat.

People have acquired elaborate security systems, with personal weapons, locks, alarms, and safes being only the most obvious ones.

Collective/Organizational level. Such threats can take the form of natural disasters such as earthquakes, hurricanes, and the like. Threats from other humans can appear as aggressive gangs or mobs or as hostile organizations or even subgroups of large

organizations. They also appear in the form of hostile nation states oriented toward the plundering of D1 resources.

They involve the process of closing ranks either to retreat to, or fight from, some kind of defensive position.

Collective/Organizational Level. Humans tend to be especially sensitive to threats, even slights, to their bonded groups, and often react defensively. The drive to bond predisposes humans to be joiners. And once someone becomes identified with a group, so that it becomes “my“ group, they tend to be quick to take offense at behaviors that they perceive to be hostile toward that group.

When people perceive their bonded groups as threatened, the favored response is to be angry, to close ranks and counterattack in some form. Retreating is a comparatively rare event. In fact, groups seem more willing than individuals to counterattack, even in the face of unfavorable odds. People are notoriously braver in groups than alone—sometimes to the point of foolhardiness.

The Drive to Defend in Interaction with the Drive to Learn

The drive to defend is activated to protect these worldviews and self-images whenever they are threatened.

...belief systems are the hard-won result of an entire life’s experiences and are deeply prized and defended possessions.

The drive to learn and make sense of the world pushes everyone toward choosing a belief system that helps answer the more fundamental questions about the meaning of human existence and their own personal place in the universe.

This is what is generally called the spiritual life. But the history of ideas in the last 150 years has in many ways been a story of debunking one belief system after another.

Collective/Organizational Level.

Belief systems, are very much a group phenomenon. The vast majority of the ideas people carry in their brains have been conveyed to them by their cultures through their various group memberships, their bonded relationships.

...most of the hostile belief systems that people experience as threats to their own beliefs that people experience as threats to their own beliefs are, more accurately, threats to the beliefs of the groups with which they are identified.

So when the beliefs they share with these groups are attacked, they not only tend to take it personally, they also have a ready-made group of allies to help defend these beliefs.

The Dark side of the Drive to Defend

The dark side of the drive to defend is war.

...war will not happen if the costs are high and other, less risky ways of fulfilling D1 are available.

It is easy to change the name of the “War Department” to the “Defense Department,” but just switching symbols goes only so far. We must constantly guard against unleashing violence in the name of defense when the real drive is to acquire.

Before, the largest bonded collective was the tribe, and before that the kinship group and the primary family. The size of collectives to which humans bond directly has been increasing, albeit very gradually.

Four Drives

The four drives are a complete set; they are not missing any other important universal and independent human drives.

The assertion that these drives are innate and universal is a strong one, especially when we learn from biology that, except for identical twins, every human is truly unique.

Very few people, if any, truly deserve the label of sociopath. The fact that so very few individuals are saints or sociopaths demonstrates that the drives to acquire and to bond are at least nearly universal.

We would argue further that the genetically determined independence of the four drives has, paradoxically, actually served to somewhat loosen the control of genes over human

behavior and to increase the importance and influence of cultural and individual development.

The independence of the drives often forces them into conflict. When there is no conflict between or among the drives in regard to a given situation, the mind is capable of signaling the action to be taken to the motor centers with minimal, if any, conscious awareness.

Think of the feelings one has when a loved one develops a strong religious belief that conflicts with one's own.

So our genes, by establishing the independence of the four drives, have guaranteed that humans have to make decisions that involve difficult trade-offs, difficult moral choices that other animals do not face.

Our minds are designed to force us to feel responsible for all the consequences flowing from our decisions. This is what is called the human conscience. This is the highest level of consciousness that Damasio describes in his recent comprehensive book of the biological basis of humans' multiple levels of consciousness.

How has our species been able, in so relatively short a time, not only to survive but to thrive in all parts of the earth, on and under the seas, in the sky, and now even in space?

Human genes do not determine behavior; far from it. On the contrary, they actually require the exercise of free will, albeit as constrained by environmental conditions. They require us to make choices, over and over, in an essentially unpredictable and nondeterministic manner, choices of what to do in our search for a better life.

Culture, Skills, Emotions

The four independent drives and related skill sets were critical to human evolution. Once these drives and skills were set for the takeoff in human cultural development. With their drive to learn and related skill sets such as language and abstract reasoning, humans could invent and design all varieties of new artifacts. They could reach out to explore the entire globe. They could eventually domesticate a variety of plants and animals, greatly increasing their available resources. With their drive to bond and related skill sets such as morals, they could create the stable large-scale social institutions necessary for the big construction and irrigation projects of ancient civilizations. With their drive to acquire and related skill sets such as the sense of ownership and property rights, they could create and accumulate large stores of items of value. With the drive to defend in place they

could create weapons and other defensive artifacts. These four drives, which together made up what was universal in human nature, provided the foundation for the rapid development of all varieties of human cultures.

Robert Plutchik, in *Emotion: A Psychoevolutionary Synthesis...* argues that all emotions are derived from primary drives and conceptualizes emotions as a bridge between the primary drives and cognition. Cognition, he believes, evolved to predict the future and thereby to serve in the fulfillment of both the emotions and the underlying biological drives from which they are derived.

...emotions do come in different intensities and different mixes.

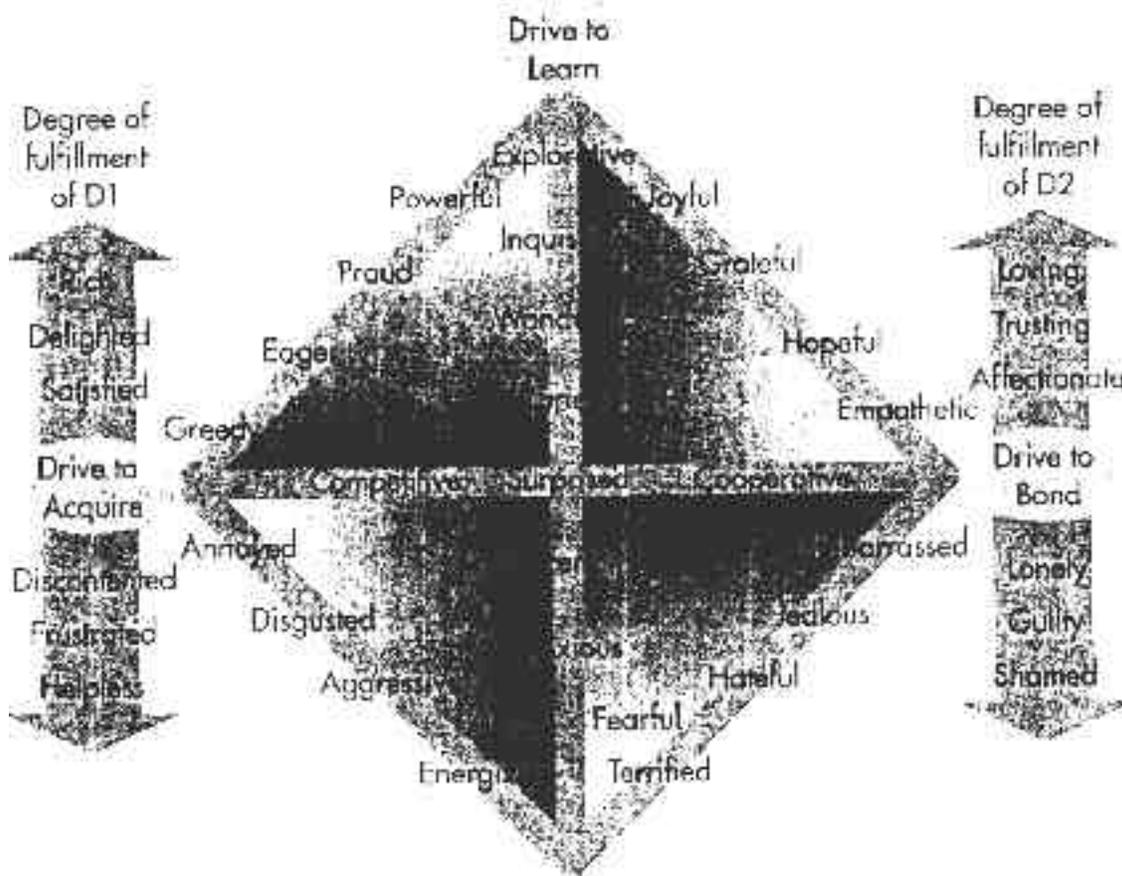


Figure 8.1 Derived Emotions arrayed on a Four-Drive Grid.

Cognition and Self-Determination

...”there are three phases to an intentional action: a struggle between motives, a decision or intention that ends the struggle, and the...action itself.”

...”an intention that is not based on a natural need (such as a drive) will surely fail.”

“will is the capacity of the human organism to choose how to satisfy its needs...Self-determination is the process of utilizing one’s will...Willing is a necessary aspect of healthy human functioning.” Thus, self-determination is a direct product of independent, non-interchangeable drives such as the four we hypothesize.

...people desire to fulfill all four of their innate drives—people always look for smart ways to have it all.

Reconciling D3 and D4

As Peterson expresses it, “Human beings are prepared, biologically, to respond to anomalous information—to novelty. This instinctive response includes redirection of attention, generation of emotion (fear first, generally speaking, then curiosity), and behavioral compulsion (cessation of ongoing activity first, generally speaking, the, active approach and exploration).

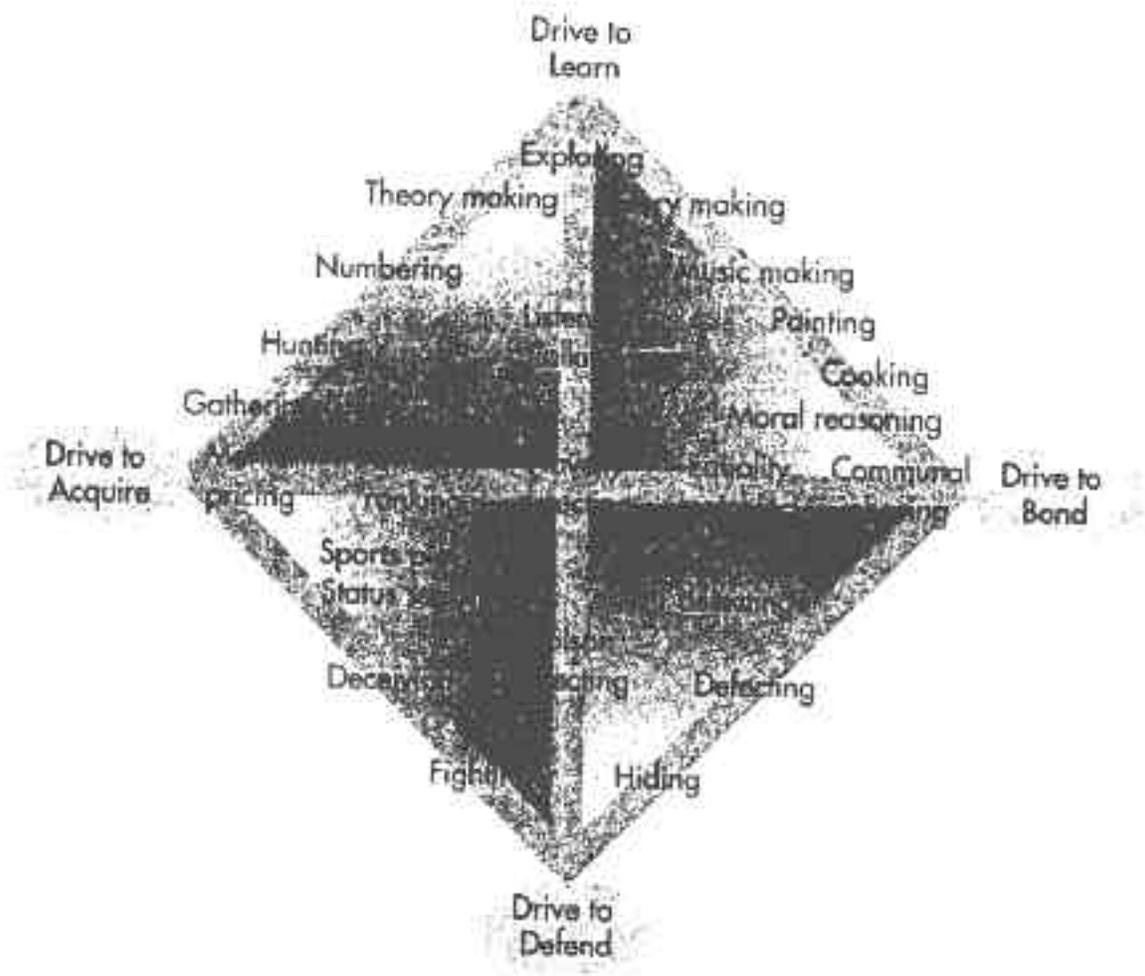


Figure 8.2. Skill Sets Arrayed on a four-Drive Grid.

Table 8.1. Murdock's List of Universal Cultural Traits, Coded for Linkage to the Four Drives.

CULTURAL TRAIT	DRIVE				CULTURAL TRAIT	DRIVE			
	1	2	3	4		1	2	3	4
Age grading	D1				Hair styles		D2		
Athletic sports	D1	D2			Hospitality		D2		
Bodily					Housing				D4
adornment	D1				Hygiene				D4
Calendar			D3		Incest taboos		D2		
Cleanliness training				D4	Inheritance rules	D1			
Community					Joking		D2		
organization		D2			Kin-groups		D2		
Cooking	D1				Kinship				
Cooperative					nomenclature				D3
labor	D1	D2			Language		D2	D3	
Cosmology			D3		Law		D2		D4
Courtship		D2			Luck superstitions			D3	
Dancing		D2			Magic			D3	
Decorative arts			D3		Marriage		D2		
Divination			D3		Mealtimes	D1			
Division					Medicine			D3	D4
of labor	D1	D2			Obstetrics			D3	D4
Dream					Penal sanctions				D4
interpretation			D3		Personal				
Education			D3		propitiation of				
Eschatology			D3		supernatural				
Ethics		D2			beings			D3	D4
Ethnobotany	D1				Puberty customs		D2		
Etiquette		D2			Religious ritual			D3	
Faith healing	D1		D3		Residence rules	D1			
Family feasting		D2			Sexual restrictions	D1	D2		
Fire making	D1				Soul concepts			D3	
Folklore			D3		Status				
Food taboos	D1			D4	differentiation	D1	D2		
Funeral rites		D2			Surgery	D1			D4
Games		D2			Tool making	D1			

Origins of the Social Contract

The strongest evidence that the mate selection process had a major effect on developing distinctly human traits, the four independent drives, comes from the study of what traits men and especially women currently seek in their mates. David Buss of the University of Texas has studied this question in great detail. He set the stage for his detailed finding on mate selection as follows, “A woman who preferred to mate with a reliable man who was willing to commit to her presumably would have had children who survived, and thrived, and multiplied. Over thousands of generations, a preference for men who showed signs of being willing and able to commit evolved in women.

Buss decided to test this hypothesis directly by asking American women to rank the qualities they most preferred in a mate. Buss summarized the findings of his research and those of other similar studies as follows: Women seek out mates with resources but they “may be less influenced by money per se than by qualities that lead to resources, such as ambition, intelligence, and somewhat older age. Women scrutinize these personal qualities carefully because they reveal a man’s potential.” We code this cluster of features as strongly favoring D1 and D3. Buss continues, “Potential, however, is not enough. Because many men with a rich resource potential are themselves highly discriminating and are at times content with casual sex, women are faced with the problem of commitment. Seeking love is one solution to the commitment problem. Acts of love signal that a man has in fact committed to a particular woman.” Direct studies of preferences in a mate confirm the centrality of love.” We code these findings as strongly favoring D2. Finally, Buss reports that women select for men who are strong and healthy. We code this for D4.

Thinking that American women might have different preferences from those of other humans, Buss asked his questions of thirty-seven different samples from thirty-three countries and found essentially the same results.

Buss found that the men in his studies, in terms of their long-term mating choices, preferred beauty and youth (D1), love and faithfulness (2), and intelligence (3). However, he found that men, unlike women, also showed evidence of employing at times what he termed a “Short-term” mating strategy—with sheer sexual accessibility being the criterion of choice.

Long-term bonding between sexual partners has, to the best of our knowledge, never been observed among chimpanzees nor among pigmy chimpanzees, the bonobos. To the contrary, both genders in both species are promiscuous.

In sharp contrast, among humans, mate bonding—in other words, monogamy—is the norm. Marriage is observed as a long-term commitment in all cultures.

For billions of years evolution was a blind, mindless, trial-and-error process. Now, in the last few steps toward evolving humans, it was being guided by a purposive mind. Hominids were, in effect, pulling themselves up by their bootstraps. And females, the so-called weaker sex, were in charge of the design team. Their mate choices, in time, led males themselves to include faithfulness and intelligence in their mate-selection criteria. This, we hypothesize, is a major piece of the solution to the mystery of the Great Leap.

“Human beings approach the world of sensory stimuli and motor demands differently from other species, particularly with respect to higher learning processes.”

Organizations at all levels from work organizations through social, religious, and recreational organizations to tribes and nation states were impossible without the buildup of the extended bonding drive. Organizations literally were inconceivable until the learning drive pushed symbolization skills to the necessary level of abstraction.

Once humans were able to symbolize and bond with collective entities, much else followed quickly. Our ancestors then were able to develop complex systems of social norms and moral codes that could be steadily reinforced by relatively low-cost rewards and sanctions. They could create myths of the creation of the tribe and rites of initiation into membership. Religions arose to provide answers to the ultimate questions. Artistic symbolization of the collective flowered, and, not least, the group-wide collaborative efforts that followed were able to generate and then rapidly disseminate technical advances. Cultural development for the first time took over the lead role in co-evolution. Civilization was launched. The uniquely human form of culture that can conceptualize information into concrete entities and create complete social structures emerged at last.

Aristotle's seven-word definition of humans. “Humans are social animals endowed with reason.”

Aristotle is saying that, in addition, humans are distinguished by being basically social—in our terms, having a drive to bond. Finally he adds that humans are “endowed with reason,” that is, they have the capacity for abstract symbolizations that differentiated our drive to learn from that of other species. Elsewhere Aristotle

characterized humans as political beings, beings, in our terms, capable of creating and abiding by social contracts.

Why So Much Diversity?

If we cannot end now our differences, at least we can help make the world safe for diversity. John F. Kennedy

If we are right that all humans share a common set of innate drives and related skill sets that that help explain much of their behavior in our modern world, how can there be so much diversity?

The most recent findings about the complete human genome estimate that 99.9 percent of the genes of all humans are the same. It was simply that some parts of the world offered humans significantly different biogeographic conditions—more or less resources to work with, if you will.

Biogeographic Resources and Co-evolution

It's obvious that people differ enormously in the knowledge they acquire, depending on their circumstances as they grow up.

Ideology and Co-evolution

...the human mind seems to have a strong distaste for inconsistencies or lack of congruence. People seek an explanation for events consistent with the observations of their sense organs and with their prior knowledge. Whenever an explanation seems sensible, people lock onto it and store it in long-term memory. From then on, whenever something similar comes along, they note it as the same and the original explanation is reinforced.

But sometimes a person encounters an idea, perhaps on a random basis, that strikes them as new—an original explanation of some important matter that makes sense. Unfortunately, it might well make sense for reasons other than its accuracy or its completeness.

But what if it is not a reasonably accurate representation of the real world? Therein lies a significant hazard. Often in human history, incorrect or misleading ideas have taken hold and gained favor.

Let's say that confirming or disconfirming facts are difficult to come by and somewhat ambiguous. Now let us call this idea an ideology. It may have appeared originally by chance, but the way it is propagated and persists is not by chance. It is based on how the human mind is designed to work.

People come to believe they are true. They, of course, then act on them as if they are true.

People have no other choice but to act on what they believe to be true. People for countless years believed that the earth was flat.

Flatness was lodged as a fact in their heads. Once so firmly lodged, it was hard to remove.

Human brains seem to be built in a way that makes it difficult to displace prior ideas. When others try, it triggers the drive to defend current beliefs more often than the drive to learn new ones.

Why abandon an old idea that has stood the test of time unless you are very sure the new idea is more accurate or useful?

The dominant paradigm for anthropologists is that humans are programmed entirely by their culture; this would suggest that all cultures are equally valid and valuable and should be left intact. The political scientists of the seventeenth century, known as philosophers, had a paradigm focused entirely on authority ranking that asserted the divine right of kings.

If the four-drive theory is, in due course, verified, it will probably be possible to invent ways to roughly measure the strength of the four drives and associated skill sets on an individual basis.

Human Nature in Organizational Life

The return from your work must be the satisfaction which that work brings you and the world's need of that work. With it, life is heaven, or as near heaven as you can get.

Without this—with work which you despise, which bores you, and which the world does not need—this life is hell. W. F. B. Du Bois

In the organizational context, the four-drive theory implies that every person, from the CEO to the most junior employee, will bring a predictable set of mental equipment to work each and every day. This mental apparatus will be engaged in every item of behavior that takes place at work.

What would an organization look like that was explicitly designed to effectively engage the drives, the skills, the smarts, and the emotions of such people in a collaborative effort to design, produce, and sell products and services of value to the wider world?

An Organization Designed for Four-Drive People

What is the most basic thing employees of all levels must come to terms with at work? The nature of their individual jobs. How would individual jobs be designed to best engage the four-drive person?

Clearly, every job must provide an opportunity to fulfill, to some reasonable degree, all four drives. In order worlds, every job needs to provide an opportunity for the incumbent to acquire, to learn, to bond, and to defend. A job that fulfills only one or two drives, no matter how lavishly, would not be a substitute for a job that provides a balanced opportunity to fulfill all four drives. This simple design rule is the fundamental and primary one that should guide the work of the organizational leader throughout the design process.

Organizations have a tendency to veer to an extreme emphasis on the achievement of some one drive to the neglect of the others. When this happens, even the emphasized drive will in time become frustrated. To maintain a reasonable balance among the drives requires hands-on steering by the leadership of the organization. Like riding a unicycle, it takes constant adjustment to move forward without falling right, left, front, or back.

Once on the job, the bonding drive will lead every person to search for others with whom they can evolve mutual caring commitments.

When these one-to-one bonded relationships form a cluster, the participants will begin to see themselves as a group., their bonded group that is distinct from other groups.

The more extended bonding drive of employees will also predispose them to bond with organizational groupings beyond their immediate work team. They will bond, if such

opportunities have been wisely provided by the leaders, with their department, their plant, their division, and even with the entire firm. Other things being equal, these multiple bonds will lead the people involved into friendly support of one another.

The acquiring drive will lead to ongoing competition as everyone in the organization seeks to boost their relative share of the scarce resources. This competitive drive to excel others is the greatest source of the restless energy that people bring to the workplace. If this were the only drive in play, it would lead inevitably to an all-out struggle of each against all. Everyone would act as a free agent in a winner-take-all contest.

It is clearly in the interest of the organizational leader to align the competitive energies of individuals with the integrated goals of the organization. To do this the leader would need, on an ongoing basis, to moderate the competitive energies of D1 with the mutual caring generated by D2. This need for balancing the acquisitive and bonding drives sets up the second guiding principle for the leader: such a balance needs to be struck in every key relationship in the firm—within each primary work group, between all primary groups that are interdependent, between any larger groups such as departments and divisions, and directly in the social contract between all employees and the overall firm.

Keeping all these relationships in balance is much easier to say than to do. Relationships can all too readily slide into cutthroat competition or totally collusive bonding. Either extreme will harm the firm's performance. These swings can occur because each of the four drives was created by evolution to improve the odds of gene survival. When any one drive gains dominance for whatever reason in a given social setting, it soon becomes self-reinforcing.

Leaders have several structural devices they can use to promote this balance. For example, they can balance financial and symbolic rewards for both individual achievement and teamwork. They can arrange the physical layout to place interdependent groups in adjacent space to encourage trustful bonding.

For example, offering large financial incentives to the winners of intergroup contests would predictably pull these relationships into cutthroat competition.

The drives to learn and to defend must receive equivalent consideration. For individual jobs to offer opportunities for learning they would have to entail enough variety of content to generate novel or problematic situations that trigger the itch of curiosity.

Of course, the variety can be too great and the gaps so large that confusion results.

In relation to the drive to defend, work groups must be provided with the means to fend off external attacks.

The organizational leader needs to balance D3 and D4. The goal is to encourage prudent risk taking, not reckless exploration, and to encourage boundaries between groups that are permeable rather than impregnable.

One of the critical roles of a leader of any given group is to facilitate open-minded relations with other parts of the organization while defending the group from outside challenges as needed.

...every job in our theoretical four-drive organization would offer an opportunity for the incumbent to employ some personal skills, skills for which they not only have an innate head start but also a personal history of further developing and refining. Since individuals will differ in regard to the skill sets they have developed, this step will necessitate a one-to-one matching of skills and job requirements.

...most firms depend on the continuing high regard of their customers. Repeat sales are essential. To achieve this the product or service needs to engage customers in terms of all four drives. Hence firms need to cultivate identifying brands for their products that represent a kind of social contract, a promise of a certain mix of quality (D1), service (2), novelty (D3), and reliability (D4) that adds up to a value that justifies the price.

Shareholders have always been seen as caring only about the acquiring opportunities provided by share ownership. But this ignores their defending drive to avoid significant losses of their capital, and often their satisfaction from simply being associated with a distinguished and interest firm.

The relation between firms and their suppliers, to be sound over the long haul, needs to allow both buyers and sellers a chance to fulfill all four drives.

The variety of issues and problems generated by the interaction of the parties can stimulate the joint problem solving of both to their mutual benefit. They can come to the defense of one another by providing help in times of crisis. They can take significant satisfaction in developing bonds of partnership and friendship and feel free of concerns about being double-crossed. Relations of this rich four-drive type can be planned for and evolved between firms in the supply chain to their mutual advantage.

Consider the commercial fishing industry. All fishermen can be expected to try to fill up their own vessels with fish on each voyage—to do less would not be in their competitive interest. Yet if every fisherman acts this way, all will lose out as the overall stock becomes depleted. Economists call this dynamic dilemma the “Tragedy of the Commons.” Nothing short of the government with its power of regulating an industry for the common good can stop such an outbreak of cutthroat competition.

General Motors and the Four-Drive Blueprint

The assembly line fostered obedience but certainly no bonding between management and workers. Loyalty became virtually unknown in either direction, down or up.

A man checks his brains and his freedom at the door when he goes to work at Ford's. Most workers deeply resented these jobs and turned their resentment toward management.

No one had figured out a way to design mass production jobs so as to address human drives to bond or learn or defend.

Ford had essentially offered his car to the public on a take-it-or-leave-it basis.

Sloan worked to achieve a much more reciprocal relationship with GM customers.

GM customers came to believe they not only got a good car for their money (D1) but also a trusted friend (D2) who offered a reliable vehicle (D4) tailored to their desires (D3).

Sloan pioneered a major innovation, the multidivisional form of organization.

GM divisions were provided with most of the resources they needed to operate as independent units that could be judged by their overall profitability.

This management method did unleash a lot of energy, but the financial rewards induced fierce interdivisional competition. The exchange of innovative ideas between divisions ground to a halt.

Each division also came to see it as in its best interest to go for the large middle-class market. Product differences between divisions tended to shrink as all divisions converged on this one market and neglected both the high-price and low-price ends. By the fifties and sixties GM divisional executives were reenacting the Tragedy of the Commons in their relations to one another.

GM combined the use of wholly owned parts suppliers with the purchase of parts from independent suppliers.

The contracts usually went to the low bidder, following the classic market pricing. This system tended to drive down costs (D1) often at the expense of innovation and quality.

The infamous “Lopez Incident,” where GM reputedly told all its suppliers that GM would be paying 15 percent less for parts—effective immediately. Suppliers, to defend against such high pressure tactics, undoubtedly cut corners on quality, passed on extra charges by all means possible, and withheld valuable information. One auto-part supplier explained to us that he had candidly told a senior GM executive that GM would be the last to hear about any of the supplier’s design improvements. The reason was simple: the GM purchasing officer would inevitably follow company policy and call other suppliers with the new idea and ask for lower bids. Supply relationships became a form of cold war similar to that conducted with the hourly workforce on the factory floor.

The Nature of the Japanese Challenge

The Japanese firms had worked out a way to segment their assembly lines, with each segment managed by a small team. Each team of workers was held responsible not only for the volume of output but also for its quality. Each team was given the power to stop the line if necessary to meet its responsibilities. Teams were also urged to come up with their own ideas for improving quality and efficiency.

It came naturally to Japanese workers to honor anyone in their group who passed on to management an idea that could cut costs or improve product quality. Any GM worker who proposed any such idea to management would have been ostracized as a sellout. The bitter hostility between management and labor became so ingrained and persistent at GM that observers judged it to be completely inevitable.

The Japanese evolved an executive reward system and a decision-making system that promoted cooperation rather than competition between units. The Japanese tied their executive reward system almost exclusively to overall firm performance, rather than to the performance of any subunit. Beyond this their decision system, called *ronji*, involved developing a position paper on important company-wide topics, which was then

circulated for consideration and comment down through the ranks and laterally across divisional lines.

In regard to supplier relations, the Japanese auto industry adopted the practice of cultivating long-term relationships with independent auto parts firms.

Japanese supply networks were based on bonded ties that followed the rule of long-term reciprocity in help and advice.

This system greatly aided the automakers in securing high-quality parts at reasonable cost—along with a continuous flow of ideas for product improvements.

They understood that the great advantage of competitive markets, as economists have well established, is that they provide strong incentives for firms to strive to be effective and efficient, to avoid waste and to seek creative solutions to market opportunities. This advantage is lost if firms are allowed to move into a quasi-monopolistic position without real competitive pressures.

To a limited extent it becomes reasonable to characterize entire organizations by their emphasis on and success at acquiring, at learning, at bonding, and at defending.

The Challenge of Transformational Change

...there is a clear direction toward which all these changes are heading:

- Redesign the more routine jobs so that they contain some variety and some responsibility for problems solving so that all employees can to some extent be knowledge workers, using their brains to learn and to invent ways to enhance performance.
- Centralize decisions about objectives after wide discussion and delegate decisions about means to all parts of the organization.
- Flatten and downsize the managerial hierarchy and reduce the power and status gap from top to bottom so as to improve the flow of good ideas.
- Foster the development of bonded work teams that jointly tackle production problems or the challenges of new product development.
- Encourage lateral lines of collaborative communication between functional and divisional groups by drawing them into the decision process and by designing reward systems that moderate inter-group competition.
- Earn the bonded loyalty of every employee to the firm as a whole as well as to their immediate work group.

- Focus the firm on excellent performance of its core technology while outsourcing other tasks and processes to long-term, trusted suppliers.
- Build long-term customer relations around brands that stand for quality, value, and reliability.
- Work with regulatory bodies to develop sensible guidelines to ensure a level competitive playing field and the protection of legitimate public concerns.

Guidelines From the founders

Dave Packard (placing emphasis on D1 for everyone): If we could simply get everybody to agree on what our objectives were and to understand what we were trying to do, then we could turn everybody loose, and they would move along in a common direction.

Dave Packard (placing emphasis on D2 for everyone): The only way this company is going to run successfully is if we can ensure that there is a maximum flow of information and cooperation between all the elements of it.

Bill Hewlett (insisting that all jobs have four-drive potential): At HP we believe that a manager, a supervisor, a foreman, given the proper support and guidance (that is, the objectives), is probably better able to make decisions about the problems he/she is directly concerned with than some executive way up the line, no matter how smart or able that executive may be. This system places great responsibility on the individuals concerned, but it also makes their work more interesting and challenging. It makes them feel that they are a part of the company and can have a direct effect on its performance.

Corporate Leadership

In four-drive terms, the instrumental aspect refers to acts of leadership that help others fulfill their acquiring drives (D1). The social aspect refers to acts of leadership that help others fulfill their bonding drives (D2). Four-drive theory suggests two more aspects to be added to leadership theory: acts of leadership that help others fulfill their learning drives (D3) and acts that help people defend their accomplishments (D4). This last aspect of leadership needs additional comment.

One way of harnessing the potential energy of D4 is to rally the organization to fight the enemy outside.

But the energy unleashed this way is short-lived. Once the heart of the battle is over, leaders have to find a way of tapping into the three other drives to maintain a vibrant and adaptive organization.

The Road Forward

As hard as it is to create a communal utopia in which everyone is equal, it is equally hard to create a true Hobbesian state in which everyone is at war with everyone else.



The above summary has been provided to you compliments of Altfeld, Inc.