Managing Homo Sapiens

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The industrial era which gave birth to the field of management was not the era that molded human nature. For more than 99 percent of human evolution, ancestral humans lived in hunter-gatherer societies (Edward O. Wilson, 1978; p. 84). This was the era in which the human psyche evolved. Because an understanding of human nature is key to management, it seems logical to examine both the evolutionary process in general, and humanity's past in particular. This is the tack taken in this paper.

Major developments in understanding the nature of humanity have occurred and been disseminated. Evolutionary psychology has advanced significantly, bringing the millions of years of natural selection that have molded *Homo sapiens* physically, mentally, and behaviorally into our analysis. As Friedrich Hayek (1979) noted, "... all enduring structures above the level of the simplest atoms, and up to the brain and society, are the result of, and can be explained only in terms of, processes of selective evolution ..." (p. 158; emphasis in the original). Any explanation of human behavior in the workforce that ignores humanity's evolutionary endowment runs the risk of being irrelevant and incorrect.

The propositions advanced in this paper offer an array of prescriptions that are useful, clear, and easily implemented. In particular, it provides insights into how workers might react to moral dilemmas that involve risk, and assignments that involve working in teams.

I. New Insights from Our Distant Past

Evolutionary theory presupposes that the totality of an organism is an adaptation to the environment that existed during the time in which its ancestors were selected. Risk and scarcity were, as always, pervasive in that environment. Human desires for food, sex, shelter, companionship, and status are strikingly similar to the appetites of other social mammals. The reason for this similarity is that these tastes are inherent responses to risk and scarcity; evolutionary processes selected these tastes over other desires that were less favorable in enhancing "evolutionary survival." Evolutionary survival means that the individuals have

successfully reproduced and reared their offspring.

Evolution affected physical and behavioral traits. Examining the human species with the same objectivity as we apply to other social animals, we notice that human societies share certain behavioral predispositions with other social animals. Two tendencies that humans share with other higher order social animals that can provide insights for effective management are: 1) status seeking; and 2) reciprocal altruism.

A. Status Seeking

The existence of a status seeking in social animals is widely accepted by researchers who have studied them.¹ But what exactly is status seeking and why is it important to management and business ethics? Status seeking is competition between conspecifics for rank in a peer group. On its face the competition is a zero-sum game: only one individual can occupy the "alpha" position. The desire for elevated social status is innate in social animals because evolutionary selection favors it. Top-ranking animals have expanded opportunities to feed and to reproduce; that is, they are more fit, ecologically and evolutionarily, than lower-ranking animals. Over evolutionary time, natural selection made status seeking innate because the genes of individuals with a lesser drive for status were reduced in the gene pool. Among humans, "keeping up with the Joneses," fashion, and conspicuous dress are obvious manifestations for status seeking.²

Status seeking is a key element that determines human attitudes toward risk.³ Reuven

¹For studies on status seeking in social animals (such as wolves, primates, and humans) see: Erik Zimen (1979), Durward Allen (1979), Michael Fox (1980), Fred Harrington and Paul Paquet (1979), Charles Lumsdem and Edward Wilson (1981, 1983), Frans de Waal (1982), Frans de Waal and Frans Lanting (1997), Carl Sagan and Ann Druyan (1992), John Alcock (1998), Matt Ridley (1993), Helena Cronin (1993), and Robert Wright (1994).

²On fashion and status see: Coelho and McClure (1993); on conspicuous organizational dress see Rafaeli and Pratt (1993)

³Sitkin and Pablo (1992) provide an excellent synthesis of the existing literature on risk as it applies to management. Theory Alpha extends this effort by tracing risk taking propensities to human status seeking and reciprocal altruism.

Brenner (1983) points out that the relatively deprived ("the poor") play lotteries more often than "the rich" because lotteries offer the poor an option not conferred upon the rich: a chance to experience a **large** change in social status.⁴ The rich are not exempt from status seeking, and will wager what they consider to be small amounts in "unfair" games (that is, games whose expected value is less than the price charged to play them). But the rich play such games only when the potential change in status is commensurately large.

The quest for status implies that individuals will purchase "unfair" lottery tickets whose price is small by their **current** standards, provided that the lottery's prize has the potential to raise their social status relative to its **current** position.⁵ This aspect of human behavior has implications for business because an individual who has the potential of significantly enhancing his status by committing his firm to a certain action will be inclined to pursue that action, even if it involves substantial risk. For example, suppose a firm has 10 employees and that each individual over a year takes a position that 99.8 percent of the time will increase the firm's net worth by 20 percent and 0.2 percent of the time will lead the firm into receivership. On the positive side, we can predict with confidence that the firm will grow spectacularly in the short-run. On the downside, we can confidently predict that the firm will collapse equally spectacularly in the long-run.

Firms whose employees have the ability to make decisions that may jeopardize the firm's survival are at a greater risk of bankruptcy **if** the reward structure of the firm allows these employees to make an immediate quantum leap in status when successful. The recent failures of many of the dot com firms in the United States, and that of the Barings Bank in 1993 illustrate

⁴In this vein, MacCrimmon and Wehrung (1990) found that older, more senior decision makers were more risk averse than their younger counterparts.

⁵For a formal analysis of risk taking and peer group dynamics see Coelho and McClure (1998).

our point.6

Status within a peer group depends upon the personal connections of an individual and the assets the individual controls. Having personal connections means that the individual's status, for whatever reason, is greater than his current asset position would imply, *ceteris paribus*. We would expect employees with high-level personal connections to take less risky positions than they otherwise would. Because personal connections are diffused, it is difficult to generalize about them. Nevertheless, the evolutionary perspective suggests the following hypothesize: firms that hire workers because of their personal connections (via nepotism or the "old boy" network) are more likely to survive, *ceteris paribus*, than firms that ignore these considerations. Because personal financial considerations are much more concrete than personal connections, the evolutionary perspective offers a richer set of prescriptions.

The current asset positions of individuals are highly correlated with their status. The survival of firms depends upon controlling risk. Firms that closely monitor employees' asset positions gain useful information on their agents' propensities toward risk taking. But, how can a firm monitor and asset positions? First, a rigorous financial disclosure serves two ends: one, the ostensible revelation of any conflict of interest, and two, the wealth position of employees. Other methods of monitoring asset positions are through the awarding of stock options or partnerships to employees. Both methods serve two purposes: 1) the employee's current asset position is more closely tied to the firm's; and 2) each of the firm's employees has a greater incentive to monitor the actions of co-workers. Monitoring may also be an implicit objective of firms that require a substantial equity investment by their employees (partners must buy into the firm). This is entirely explicable to our way of thinking.

Financial markets provide a concrete illustration of the evolutionary perspective in practice. These markets are continually evolving, introducing products that are unfamiliar to the

⁶ The dot com firms were notorious for the youth of their management. Nicholas Leeson was the twenty something manager in Singapore that led the Barings Bank into failure.

firm's employees. Young, newly employed, financial traders will more likely be the ones that specialize in these "new" markets for two complementary reasons: First, relative to more established traders, it will cost them less to learn about new markets. Established traders know the existing products, and time taken off to learn about emerging products costs them more. Second, emerging financial markets offer a virgin territory to the trader, by definition there are no established traders, so establishing a market niche is easier. (Established traders, again, have a higher opportunity cost in giving up time in their home markets to investigate new markets.)

Young traders typically have fewer current assets and will typically take greater risks than more established traders. If the firm's reward system allows traders to enhance their current asset/status positions on the basis of a few highly successful trades, then the firm is at greater risk of failure. Notice how the internal monitoring system of the firm is attenuated in new financial markets: established traders have less knowledge of these markets and their nuances. Consequently, they lack knowledge of the total risks the young traders' positions impose on the firm.

With respect to new financial instruments that emerge in a market, financial firms face the age-old "risk versus return" tradeoff when assigning personnel. While the standard calculus of profit maximization says that the firm equates gains and costs at the margin, the existence of risk vitiates this straightforward approach. In a risky world, both expected profits and risk enter the analysis separately. Consequently, only a full understanding of human nature suggests the range of controls that successful firms must use to monitor and direct young traders assigned to trade in new instruments.

Human beings seek social status as well as personal wealth. The evolutionary perspective calls attention to the personal characteristics of employees that indicate their willingness to make decisions that may put the firm at risk. A specific example may illustrate our point. Suppose that we wish to assess the attitude toward risk of a group of four people -- 1) Adam who is: a) a 63-year-old male; b) moderately well connected; and c) currently in

possession of a stock of wealth that is 10 times the amount he earns annually; 2) Betty who is: a) a 41-year-old female; b) very well connected; and c) in possession of a wealth three times larger than her annual earnings; 3) Charles who is: a) a 27-year-old male; b) new to the profession and hence poorly connected; c) in possession of almost no net wealth; 4) Dorothy who is: a) a 52-year-old female; b) well connected; c) in possession of a wealth equal to her annual income.

Now we hypothesize a metric that results in an assessment that characterizes the risk associated with each trait. Obviously, this **is** an example and the metrics are arbitrary. In this example we set the lowest risk in each category (gender, wealth, age, connections) at a value of one. The highest level of risk in each category depends upon how we perceive the impact of that category on the propensity to take risk. Let us explain our risk assessments for each category.

Begin with gender. We assign a value of one for being female and four for being male. The reason for our assigning males a higher risk coefficient is that the literature on animal behavior almost always associates males as the sex with the greater propensity for taking risks. This is because the male contribution to the succeeding generation (the energy and the time involved in the act of procreation) is typically small relative to the investment of the female. In the human species, some obvious manifestations are: 1) the greater frequency of male gamblers in casinos; 2) the overwhelming predominance of male criminals in jail; and 3) the typically aggressive behavior of male automobile drivers (as manifested in insurance premiums).

Wealth is another category in our example. The wealth category ranges from one for anyone whose a wealth position is at least a multiple of eight times annual income, four for a wealth multiple of three, six for a wealth multiple of one, and 10 for a wealth multiple of zero. (Obviously, we do not think that the link between wealth and risk taking to be a linear relationship.) The coefficient for net wealth may be larger than 10 using the metric in this example. This would be apropos for any individual with a negative net wealth.⁷ The connection

⁷Analogous to humans with a negative net wealth, many savings and loan firms in the United States in the 1980's had negative book values. These firms were notorious for taking large risky positions, characterized by the "heads I win, tails you lose" posture their finances assumed.

of these rankings to the evolutionary perspective is clearly that those with substantial wealth endowments have lower risk coefficients because they already possess a high degree of status.

Age is another category to be considered in this risk analysis. We have assigned a value of one to anyone in the 60 years and over category, two to the age fifty bracket, three to people in their 40s, 4 to people in their 30s, and five to those in their twenties. The reason for these rankings is that younger workers are more driven to raise their status levels than older workers. This is simply because they have less of it and more years to enjoy any gains.

Personal connections constrain risk taking. Human beings are social animals and the more connected they feel, the more loyal they are to the organization. In the personal connections category we have assigned a value of one to the very well connected, three to the moderately connected, and seven to the unconnected.

Table 1 summarizes the metric. Vertically we list the personal characteristics, and horizontally we have listed the four individuals. Within each cell is the number associated with a particular characteristic for that individual. The "Total" row is simply the addition of the column entries for each individual. In our world of four characteristics, the lowest possible score is four. This means that in this simple world, the person with the least propensity for taking risk would be a female, more than sixty, with a wealth position greater than eight times her annual income and who is also very well connected.

We assume that the attitudes toward risk are linearly additive and the "Total" score at the bottom of the Table indicates the generic risk that people with these characteristics possess. The lowest Total score indicates the lowest risk. In saying that, we must recognize that people who take few risks also impose costs upon the firm: the adage "no guts, no glory" has a certain amount of merit. If the firm is to profit, it must take some risks but not enough to perpetually endanger its survival.

A further point is that risk assessment should be an ongoing process. The characteristics associated with a person can change drastically with the course of time. Suppose that a 45-year-

old male previously well-connected and with substantial wealth, loses his wealth (due to a disastrous divorce and poor investments) and connections (his mentors are convicted of heinous felonies). By our stated metric, his Total risk would rise from nine (three for age, four for sex and one for wealth and connections) to 24 (three for age, four for sex, 10 for wealth, and seven for connections).

Again, these are examples; the metric is meant to be illustrative rather than definitive. We could change the metric to have characteristics interact multiplicatively or in some other fashion. We could advance more characteristics such as marriage and parenthood. The specific example is not the point. The point is that these characteristics are predictably associated with risk-taking. If individuals have characteristic values that are associated with high levels of risk taking, the more likely they are to "bet the firm." These are the employees facing the greatest ethical challenges, and the long-run survival and profitability of the firm may depend upon monitoring and constraining such employees carefully. One of the most intriguing aspects of the evolutionary perspective is that it provides a framework for improving management foresight

B. Reciprocal Altruism

In contrast to status seeking, social animals also widely engage in activities by which they directly assist other members of their species: this is defined as altruism. We focus on reciprocal altruism. A great body of research supports the existence of reciprocal altruism among the more "intelligent" social animals. Reciprocal altruism is behavior that is engaged in

⁸There is some debate in the literature over the appropriate usage of the word altruism. First, the behavior labeled altruistic is typically limited to conspecifics, and, very frequently, it is limited to blood relatives. Those who hold to what Richard Dawkins (1989) termed the "selfish gene" hypothesis argue that these "altruistic" activities are simply assisting the same genes in another animal's body. Secondly, if the activity is "reciprocally altruistic" (this is when a favor, or gift, is given with realistic expectations that the recipient will return the favor in the future), how can it be classified as "altruism?" Payments made on a delayed basis are still payments. We recognize these nuances in the meaning of altruism and, like most other studies, continue using the word altruism.

⁹There is a body of closely related literature in management on "cooperative" behavior. For a taxonomy and discussion of 13 types of "prosocial" organizational behaviors see Brief and Motowildo (1986). For propositions linking cooperation to reciprocity see Griesinger (1990); especially "Proposition 10," on page 489.For studies on dolphins, see Charles Tailor and Michael

with the expectation of future repayment. The problem with engaging in such altruism is that there is a "moral hazard"- anticipated repayment may exceed the actual repayment.

Nevertheless, humans and other social animals engage in reciprocal altruism. In an interesting example of reciprocal altruism Axelrod (1984) arranged a computer contest where submitted programs of sociologists, psychologists, and economists vied against each other in a game that simulated human interactions. The winner was a strategy, referred to as TIT-FOR-TAT, that merged reciprocal niceness merged with reciprocal nastiness. This strategy was to cooperate first and then respond reciprocally: nice-for-nice, or nasty-for-nasty. Axelrod's tournaments illustrate the dominance of reciprocity over other strategies for interacting with others. But what are the roots of reciprocal altruism? The answer is that in the ancestral environment it offered a significant reduction in risk.

Ancestral humans and pre-humans lived in small, hunter-gatherer societies. The Hobbesian characterization of the life of early man as "solitary, poor, nasty, brutish, and short" is only partially correct. All evidence indicates that men have always lived in societies; the life of man has never been solitary. The reason for humans' social nature traces to the advantage reciprocity it gave our ancestors in their quest for survival. To any individual survival on a day by day basis would have been problematic. The risks of being killed or injured and the risks of starvation were greater for an individual alone rather than in a tribe. The survival abilities of a strictly autonomous or "selfish" individual would have been compromised by "feast or famine" variability and the increased chance of falling prey to another hunter (either animal or human).

McGuire (1988); on chimpanzees see: de Waal (1982), de Waal and Luttrell (1988), and Jane Goodall (1986); on baboons and other social vertebrates see Alcock (1998); on vampire bats see Gerald Wilkinson (1990); and for an excellent discussion including references to humans see Wright (1994). Also see deWaal (1997).

¹⁰ See Maitland, Bryson, and Van De Ven (1985) for an excellent discussion of Oliver Williamson's Hobbesian-based theories on human cooperation.

¹¹Tim White (2001) reports that close to 50 percent of all early human skeletal remains show evidence of butchering. In the absence of another tool using species this indicates widespread cannibalism among early humans.

Concentrating on food, in a society made up of reciprocal altruists the daily consumption of food for any individual would have fluctuated less because: 1) knowledge shared between individuals becomes exponentially valuable as a device obtaining food and security; and 2) of the sharing of serendipitously discovered resources. The reduced variability of consumption, in turn, increased the individual's odds of surviving long enough to reproduce. (That is, long enough to send genetic material into the future).

The tendency toward reciprocal altruism can be used by firms to control its agents. For example, before the prolonged recession in the stereotypical Japanese firm workers had long tenure, rotated through divisions and through "hands on" learning familiarized themselves with the details of the business. This process may have paid off for two reasons: 1) because Japanese workers were with the firm long-term, the firm was able to realize a return on its investment in workers who acquired broad-based skills; and 2) worker synergies were facilitated because each worker had a broad knowledge of the organization. That is, reciprocal altruism was easier among workers who shared more information, background, and status. Reciprocity among coworkers was further enhanced by the "corporate culture" of the Japanese firm that encouraged (required) workers and bosses to socialize after work hours. This created a coincidence between the worker's social and work peer group. 12

It is not surprising that the chief executive officers of Japanese firms tend to be paid substantially less than their counterparts in American firms. The decision making efforts that are required of a Japanese CEO are lower because lower-level (non-CEOs) Japanese workers engage in: 1) more cooperative activities with their supervisors, peers, and subordinates; and 2) more monitoring of co-workers than their American counterparts. The Japanese CEO is much less autonomous and more restricted than in America. The result is that the CEO of an American

¹²If these worker synergies are profitable they would be captured in the capitalized value of the firm (i.e., the share price). Once the implicit long-term labor contract is broken or weakened, say by a prolonged recession, many of these synergies would diminish or disappear. This too would be reflected in the share prices. The decline in Japanese share prices may be symptomatic of declining synergies.

firm is paid much more than the CEO of a Japanese firm. With the greater autonomy the American CEO comes greater personal responsibility for the firm's performance. This increases the risk that his employment will be terminated. The increased risk calls for a compensating wage differential. In the language of productivity, the marginal product of the CEO of an American firm is greater than that of the Japanese CEO. The Japanese CEO's contribution is much more of a joint product, dependent upon the efforts and goodwill of the firm's lower level employees.

The cost of monitoring workers is reduced in Japanese firms because they have harnessed man's reciprocally altruistic nature. When people work interdependently, each person's actions are widely known by colleagues. Reciprocally altruistic workers, like reciprocally altruistic prehistoric humans, end up with a less variable set of results. Information sharing among employees can smooth variations in the firm's production.

With respect to the problem that financial firms face in controlling young traders who have been assigned to deal in new financial instruments, reciprocal altruism offers a partial solution: assign teams of young traders and pay them on the basis of team performance. Such a payment structure will dull the status seeking drive that poses a threat to the firm, while at the same time encouraging information sharing (thereby increasing knowledge about the new investment instrument).

C. Balancing Status and Reciprocity

Two somewhat contradictory elements exist within the evolved human psyche: status seeking and reciprocal altruism. Each person acts to balance these two drives. In the work environment the contradiction manifests itself by conflicting desires to assist co-workers, or to advance one's own career at the expense of others.

The incentives and constraints of corporate culture act as the fulcrum upon which the individual workers balance status seeking and reciprocity. The heterogeneity of the environment and the activities of firms naturally gives rise to the great diversity in corporate cultures we

observe.¹³ For each firm, and, indeed, within divisions of the firm, the best incentives and constraints depend upon the unique set of circumstances facing it.

Prominent among the circumstances are the characters of the product and the industry. For example, a firm that is producing an established product with a long cycle, consisting of many component parts would probably do better by encouraging team work and reciprocal altruism. The automobile industry is a good example because productivity improvements are likely to be small and cover a host of details that are unknown to any single person. Here, team work results in a variety of incremental changes in process and product, that, over time, give the firm a substantial competitive advantage. Team work typifies the Japanese mode of automobile production that is now globally dominant.

In contrast are industries where the product is simple and the cycle is short: the fashion garment industry. This industry relies on centralized control and direction; virtually no innovation comes from production workers. This would suggest that team work and reciprocity are of little value among production workers. This is the explanation for why the fashion garment industry is typically organized by piece work. The incentive to increase production is obvious, but less obvious is the increase in status that accompanies it. Furthermore, the entrepreneurial control of the fashion firm allows decisions to be made immediately in an industry where product cycles are ephemeral.

Whether a particular firm is better off encouraging a corporate culture that stresses team work or individual initiative is then, problematic.¹⁴ And, to stress a point previously made, in a large firm with many divisions, one size does not fit all: The culture that is best for the

¹³In a paper linking equity, equality and interpersonal conflict, Kabanoff (1991) provides an insightful analysis of the tradeoff between "social cohesion" and "overt conflict" in organizations. This tradeoff, in terms of Theory Alpha, traces to the conflict between the competing desires for status and reciprocal altruism that characterize human nature.

¹⁴There is an ongoing debate in the management literature on the viability of human cooperation within organizations because of the presence of opportunism. For an excellent overview of the issues involved in this debate see Hill (1990).

advertising department might not suit the accounting division. The experiences of Japanese firms in the American recording and film industries are ample testimony that corporate cultures that are highly successful in one business environment may be abject failures in another.

Table 2 presents our perceptions of the benefits and cost of team production. Within the elements of the table are factors that others have recognized, but the evolutionary perspective expands and explains their rationale.

II. Using The Evolutionary Perspective to Enhance TQM

To further illustrate the practical application of the evolutionary perspective, we examine the linkage between it and a widely popularized management technique, Total Quality Management (TQM). TQM is not always successful and studies indicate a variety of general reasons for its failures [see, M.J. Whalen and MA. Rehim (1994); Oren Harari (1993a,b); David Keys (1991), Selwyn Becker (1993); Stephen Grossman (1994)]. Some of the more important reasons for failure are: 1) the lack of commitment by top management to a common goal; 2) complacency by work teams; and 3) inflexibility in organizational philosophy. The evolutionary perspective of human nature offers guidance on all three of these problem areas.

First, some guidance for those trying to get top managers to commit to common goals to:

1) inhibit status competition; and 2) foster reciprocally altruistic opportunities through the use of teams. Teams are appropriate in this setting because the costs of teams are virtually nonexistent. The goals and objectives are already defined in this setting and quantum changes are not an objective. The ability to identify "star" employees among managers is not a problem because the team is composed of "top" managers who have already been identified as stars.

Secondly, regarding the "complacency" of work teams, Table 2 provides two specific situations in which teams may appear complacent because the cost of using the team approach is, *a priori*, too high. According to Table 2, teams are a high cost approach to: 1) achieving quantum changes; and 2) reacting to external changes. This is not to say that teams will **always** be inappropriate for accomplishing such objectives. However, those who implement work teams

for the accomplishment of such objectives will find that teams appear "complacent" unless unusually large amounts of resources are committed to the support of such teams. The evolutionary perspective suggests that at least part of what has been called the "complacency" of work teams is really unrealistic and unreasonable expectations on the part of management.

Third and finally, the inflexibility of organizational philosophy is easily understandable from the evolutionary perspective. If the implementation of TQM is viewed as a threat to the existing status hierarchy in the firm, those with high status are likely to resist TQM. Inflexibility in organizational philosophy is rooted at the top of the organizational hierarchy. Fortunately, human nature is not one sided; there is a propensity of reciprocal altruism as well as status seeking in man. For an organization to be flexible, the evolutionary perspective proscribes that its top executives use the team approach to foster reciprocal altruism and to quell status posturing **among themselves**. Once top executives have cooperatively adopted a new organizational philosophy, the rest of the organization will more likely follow them.

Executives must realize that their own status consciousness is like their propensities for risk. An executive who is male and relatively young should realize that it is in his nature to be more status conscious than, for example, his elder, female co-executive. An understanding of human propensities for status, on the part of **all** executives, is crucial to their ability to form teams among themselves in which they behave more like reciprocal altruists and less like status seeking *prima donnas*.

III. Conclusions

Some theory of human nature lies at the heart of every system of management. The advances in evolutionary psychology have allowed us to point to two innate propensities that bear importantly on people in the workplace: 1) the drive for status and peers; 2) reciprocal altruism.

Although the evolutionary perspective *per se* has not been foundational to management systems, aspects of it are presently found in use. This is understandable; just like plants and

animals, ideas evolve from intellectual antecedents. In an evolutionary process, there is no "final solution" there is only the slow, continual process of incremental "selection."

To continue the evolutionary metaphor, this paper represents an incremental advance that modifies and synthesizes the existing theories of human nature that currently guide management systems. In the immediate future the ideas we have presented offer an approach that can help managers to make better decisions about the increasingly diverse workforces they must monitor and motivate. The examples and metric we advanced illustrate the practicality of the evolutionary perspective, and the uses to which it can be put. We believe managers who understand and plan around humanity's evolved nature will be better able to build a healthy culture within their organizations. Conversely, organizing in opposition to the evolutionary perspective is a recipe for failure.

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Table 1: Theory Alpha Analysis of Worker Risk Propensities

	Adam	Betty	Charles	Dorothy
Age	1	3	5	2
Sex	4	1	4	1
Wealth	1	4	10	6
Connections	3	1	7	7
TOTAL	9	9	26	17

Table 2: Team Production

Benefits:

- Internal (Peer) Monitoring
 Group Synergies
 Inhibits Sabotage of Co-workers' Efforts
 Facilitates Improvements that are Incremental

Costs:

- Set-up Costs: Retooling Corporate Management
 Slower Reaction to External Changes
 Slower Identification of "Star" Employees
 Inhibits Quantum Changes