

WILEY

Seven Deadly Syndromes of Management and Organization: The View from Evolutionary Psychology

Author(s): Nigel Nicholson

Source: *Managerial and Decision Economics*, Vol. 19, No. 7/8, Management, Organization and Human Nature (Nov. - Dec., 1998), pp. 411-426

Published by: Wiley

Stable URL: <http://www.jstor.org/stable/3108122>

Accessed: 18-10-2016 11:50 UTC

REFERENCES

Linked references are available on JSTOR for this article:

http://www.jstor.org/stable/3108122?seq=1&cid=pdf-reference#references_tab_contents

You may need to log in to JSTOR to access the linked references.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at

<http://about.jstor.org/terms>



Wiley is collaborating with JSTOR to digitize, preserve and extend access to *Managerial and Decision Economics*

Seven Deadly Syndromes of Management and Organization: The View from Evolutionary Psychology

Nigel Nicholson*

Centre for Organisational Research, London Business School, London, UK

It is argued that organizational designs and management processes mediate between the givens of human nature and environmental forces, and that different resolutions have varying consequences for the quality of human experience in organizations. Some of these are plainly bad for people and bad for business. Seven of the most common pathologies of contemporary business are analysed through the evolutionary psychology lens, in terms of their causes and manifestations. The paper concludes by considering how different ways of organizing and managing might run more smoothly with the grain of human nature. © 1998 John Wiley & Sons, Ltd.

INTRODUCTION

Two ideas are central to the developing discipline of evolutionary psychology (EP). The first is that of an evolved and unchanging human nature—a repertoire of psychological structures and capabilities ‘designed’ by natural and sexual selection to fit an environment which differs profoundly from contemporary organizational society. The second is the idea of the co-evolution of social institutions—the designs of social structures as compromises, transacting between the constants of human nature and the variables of the environment.

The paper outlines how many of the persistent problems of organizational life can be traced to imperfections in this compromise between psychological and economic imperatives, and how some new forms of organization may avoid these dysfunctions.

The seven syndromes of the title represent some of the most common ways in which these factors interact to produce outcomes which are deleterious for the health of organizations and their

members. The symptoms which we shall seek to explain are:

1. Shame and distress—feeling-phobic organizations which fail to recover, express or manage the negative emotions of members.
2. Alienation and anomie—mechanistic and highly structured forms which restrict and alienate the capabilities of members.
3. Deviance and injustice—low discretion low-trust organizations in which breaches of the psychological contract and deviant political behaviours are endemic.
4. Discrimination and tribalism—segmented structures in which groups perceive their interests as mutually exclusive and antagonistic.
5. Conflict and stagnation—forms of organization in which ineffectiveness is a function of the limitations in the structures, processes and powers of groups.
6. Bad decisions and judgement errors—organizations where complexity and pressure overwhelm controls, allowing unmanaged biases to distort decision-making.
7. Aggression and abuse—organizations in which dominance and submission are a model for authority relations spread from the top to other levels.

* Correspondence to: London Business School, Sussex Place, Regent's Park, London NW1 4SA, UK. Tel.: +44 171 262 5050; fax: +44 171 724 8357; e-mail: nnicholson@lbs.ac.uk

The new Darwinism does not, as some of its critics seem to presume, claim that every human behaviour is functionally adaptive—what is known as the naturalistic fallacy. It does, however, assert that we express our nature in all that we think and do, while noting that in some circumstances this can be seriously damaging to our vital interests. Our hunter-gatherer ancestors, under the strain of local conditions, were not immune to bad experiences and dysfunctional actions, but not on the scale of this inventory of late 20th century ills. These are the direct cross-product of persistent human impulses and circumstances which we have lately created ourselves. EP's avoidance of the implicit dualism of the Standard Social Science Model through its unified conception of human nature and human culture (Tooby and Cosmides, 1992) entails no contradiction in the idea that human impulses can create situations to which humans find it difficult to adapt.

The EP model of human nature sees us as equipped, by the evolutionary shaping of natural and sexual selection over some 4 million years, with an elaborated psychological architecture (Pinker, 1997). These can be characterized in terms of four sets of predispositions:

- (i) a universal set of goals and drives for reproduction and survival—these include sex-linked preferences, emotional reactions, nurturant impulses and status consciousness, all of which aid via mate choice and child-rearing;
- (ii) cognitive and perceptual modules for the control of action—these include a range of refined skills and perceptual biases adapted to the economy of hunting and foraging;
- (iii) pro-social dispositions for interpersonal relations—these include impulses for cooperative reciprocation, trading and competitive engagement, to cement and define coalitions of interest in and between kinship groups;
- (iv) communitarian values for collective existence—these include political sensibilities, hierarchical distinction, and interests in cultural forms of display and ceremony which help to define the cohering contours of community living.

The last of these could be called the instinct for culture, for our capacity to create cultural arte-

facts long predates our ability to create civilizations. The ancestral environment to which EP sees human psychology as adapted was largely a world of other humans. The complex demands of large clan living required all of the above dispositions. The advent of agriculture around 10000 years ago provided the opportunity for completely new sets of social environments to be created. The construction of these was (and is) by no means arbitrary, but directly fashioned by those in possession of power and resources to advance their interests. They, and the relatively powerless, were then faced with essentially the same task: to optimize their life chances within the constraints of community and culture. No element of our dispositions is suspended for this project, which thus leads to the recurrence of characteristic patterns of individual and collective behaviour, clothed in the different guises of the ambient culture (Nicholson, 1997).

Thus, reviewing the history of human societies one can see a tightly unified causal interdependence between enduring individual impulses, cultural forms, and behavioural adaptations to them. Shifts in resource supply, population density and life expectancy are key contingent conditions surrounding this nexus, framing the economic and social payoffs for the adoption of specific social forms and the behavioural strategies by which individuals and groups seek to achieve their enduring goals (Megarry, 1995). It follows that each of these forms produces its own special catalogue of triumphs and disasters. The aim of this paper is, therefore, to undertake an EP analysis of some of the problematic social forms which typify many business organizations of the current age, and consider the question of whether, from what we are now learning about ourselves through the EP lens, we can better understand how to create organizations fit to live in.

A FOUR FACTOR MODEL OF ORGANIZATIONAL PATHOLOGIES

An abiding concern of organization theory and research has been how institutions and companies come to exhibit their characteristic forms under the influence of a range of internal and external contingencies. Internal determinants include technology, leadership and human capital. External determinants include environmental niche charac-

teristics, stakeholders, sources of resource dependence, external shocks and other events. Strategic management theorists reject the passive determinism of this approach, emphasizing the choices of founders, leaders and elites (Eisenhardt and Zbaracki, 1992). Stinchcombe (1965) was one of the first to see these as linked historically in what is implicitly a selectionist model. The initial choice of domain by the founder or leader triggers the adoption of whatever operating strategy and technology predominates within the ambient business environment at the time of founding. These conditions in turn determine the nature of the organizational culture and, consequently the climate for leadership—a full circle of causation. Subsequent writers (Greiner, 1972; Beatty and Ulrich, 1993) have noted discontinuities in the historical development of firms, in terms of the transitions which mark the development from small enterprise to mature business.

Evolutionary approaches to these processes have to date been confined to population ecology scholars, whose interest has focused on the birth and death rate of firms as a function of their niche characteristics, such as population density (Hannan and Carroll, 1992). More recently Lovas and Ghoshal (1998) have attempted to model a selectionist paradigm of strategic choice, but in both cases the evolutionary models are metaphorical rather than sociobiological. The beginnings of a genuinely biological treatment, however, are being developed by Pierce and White (in press) who have noted that the structure of primate colonies relates to the centralization versus dispersion of food supply, in ways which parallel the resource dependence of human organizations. This is a promising, if incomplete Darwinian approach to the design of organizations. To it must be added the directional forces of human psychology in the co-evolution of institutions: recurrent and abiding preferences for kinds of divisions of labour (e.g. by sex), status hierarchy, models of leadership, workgroup forms, decisional systems, and the use of ceremony, ritual, tournaments and other cultural mechanisms. Such an account will also have to take into account three sets of more local determinants: individual differences in the psychological profiles of leaders, the values and norms of the prevailing culture, and specific events impacting the organization and its members (e.g. external threats). The project is clearly a challenging one, beyond the scope of this paper.

The more modest aim here is to look at the most common organizational pathologies through the lens of this framework. This will be confined to four sets of factors which most visibly reflect the maladaptive resolutions of the wider forces alluded to here. Figure 1 shows the framework.

At the top of Figure 1 are *individual differences*. Selective forces lead organizations to exhibit differing profiles of members, including leaders. It is in the expression of these individual differences that many pathologies arise. Many are intimately connected with the characteristic forms of human interaction that prevail in an organization or sub-unit (*interpersonal processes* in Figure 1), specifically those which limit the scope for more adaptive development. More widely the *organizational context*, i.e. its structural and cultural architecture, lies at the root of many pathologies by impeding the kinds of social cohesion and fluidity for which our ancestral psychology seems supremely designed (Whiten, 1998). Within the modern organization more local *situational demands*, born out of the economic and cultural imperatives of the organization, restrict the scope for individuals to express their identity or achieve healthy adjustment. Pathologies arise because of the compelling power of roles to shape behaviour

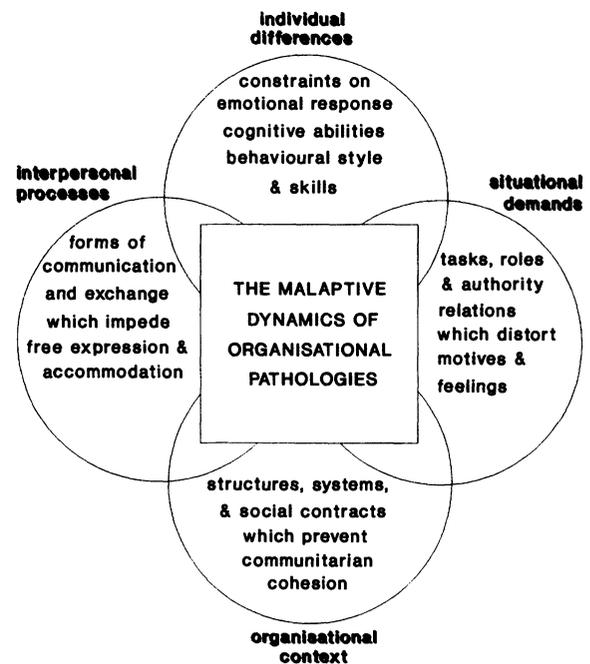


Figure 1. The maladaptive dynamics of organizational pathologies.

and consciousness. They do so in a non-arbitrary fashion, since they activate enduring underlying capacities and propensities in human impulses, such as obedience to authority and the oppressive exercise of dominance motives, as illustrated, respectively, in the classic experimental studies of Milgram (1974) and Zimbardo (1972).

A Darwinian selectionist logic can account for how these pathologies become established and self-reinforcing. In the ancestral environment there was little or no scope for choice about community membership, and even contact with 'strangers' would have been a rarity (Ridley, 1993). This meant that the normal range of human diversity had to be accommodated and a common set of environmental challenges confronted. In the modern era we live in a world where completely contrary conditions apply. We encounter and have to deal continually with strangers. We live in large diversified social units and, within them, organize in many different ways. We face a dazzling array of choices about where and how to live and work. At the same time, the forces of social stratification shape and restrict opportunities differentially for sections of society. The result, via the processes of selection and self-selection, are organizational units and subunits which have highly distinctive skewed psychological profiles. Where choice exists, people gravitate towards organizations and occupations conducive to their psychological profiles, a process reinforced by the logic of selection and attrition in their governance and career systems (Schneider, 1987; Nicholson, 1998a). The ambient profile of members further reinforces the selectionist logic which leads some to stay and others to go—the people make the place' as Schneider puts it. This creates essential preconditions for pathological communities to develop, whose furthest extreme, mediated by the internet (a medium of unparalleled opportunity for selective association), we now see in sects such as Heaven's Gate and paedophile networks.

Let us now look at the 'seven deadly syndromes' in turn to see how this comes about.

SYNDROME 1: DISLOCATED EMOTIONS
(See Figure 2)

A Darwinian perspective on organizational life urges recognition of the primacy of emotions in

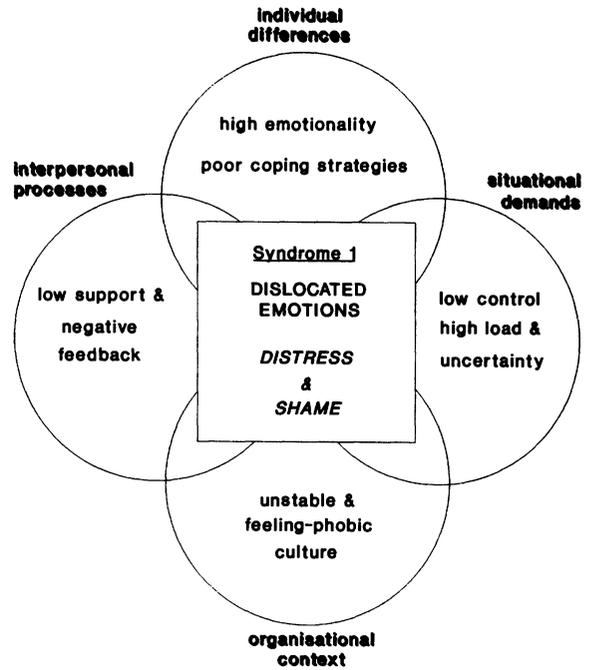


Figure 2. Syndrome 1: dislocated emotions.

human agency and response as an adaptive requirement for conditions of imminent danger and opportunity (LeDoux, 1996). In our ancestral communities much everyday activity would have been concerned with its regulation, through interpersonal dealings and cultural devices for the ritualistic recovery and management of feelings. These regulatory mechanisms are absent in much organizational life, for which reason arguably the study of stress in organizations has been a prominent theme of work psychology over the past few decades. It is portrayed as a disease whose virulence is due to the increased complexity and demands of organizational life, coupled with an absence of control strategies for its victims to ameliorate their condition (Karasek and Theorell, 1990). However, the classic conditions for stress—high load and low control—are hardly new, and have long been features of the experience of wage labour in factories. What we are now seeing is increased uncertainty in a climate where businesses are continually having to adapt their structures and strategies to maintain their competitive position, coupled with reduced social support (a key ameliorating factor in stress) as people become isolated from each other. Employees are faced with threats to job security and the unpredictable devaluation of their skills and

roles, as companies continually reorder their priorities and working arrangements, a trend which also has the effect of eroding the cement of stable connections between people working together (Greenhalgh and Sutton, 1991). In the old industrial culture, conditions may have been harsh, but they were also solidaristic. Stable working relationships inside the factory often extended outside to stable social communities. Such conditions still exist in places, but as we enter the 21st century more common are firms who are trying to out-adapt each other in a climate of increasingly rapid change. The stress of these conditions runs right through the organization, falling not least on managers whose response, transmitted down the line to their staff, is often to increase the intensity of work pressure in a desperate effort to make themselves safe. People in the US and Britain are working ever longer hours, often to protect themselves in this way (Brett *et al.*, 1998).

The climate in which this takes place is a mix of rationality and Freudian denial. The rationality is the use of sophisticated performance management systems such as 'competency' frameworks, supported by elaborate appraisal mechanisms, and the denial is the fragmented culture of fear where people off-load their stress on to one another rather than offering mutual support.

In such conditions of isolated self-defence the expression of emotion is perceived as inappropriate, and probably harmful to one's interests, betokening weakness. Moreover, the rationality of performance management systems means in practice a cool emphasis on areas of deviation from standard. The ideal of learning from failure is seldom achieved, not least because of the asymmetry of emotional reactions to positive and negative stimuli (Taylor, 1991)—the power of aversion is much greater than the power of reinforcement (Geddes, 1994). In short, hyperdynamic environments are created in which suffering in silence is the norm (Putnam and Mumby, 1993). Indeed, we face new forms of organization in which powerful performance management systems apply to employees whose work heavily consists of 'emotional labour' under Tayloristic conditions, such as in the new call centres of financial and other services (Knights and McCabe, 1998).

Individual differences intervene in such cultures. In every population there will be individuals whose susceptibility to stress and emotional response is high as an inborn personality character-

istic ('neuroticism' in the language of trait psychology) (Bouchard, 1997; McCrae and Costa, 1997). These individuals become the most visible casualties of the syndrome in settings which lack mechanisms for emotions to be recovered to a sufficient degree for adequate coping strategies to be formulated. The fragmentation of communities outside the workplace does not help. There is nowhere to go with one's pain.

This need was strikingly exhibited in the extraordinary public response to the death of Diana, Princess of Wales in 1997. The event acted as a vehicle for the catharsis of strong emotion: desires for communal sharing of emotional experience, to embrace and create ritual which could reclaim feeling as a legitimate part of identity. It is reasonable to surmise that a major contributory cause was the emotion-phobic environments of many modern workplaces, whose frustrations find insufficient opportunities for resolution in fragmented community and family life. In contrast, a characteristic of psychologically healthy communities is that distress and shame can be fully experienced in a social context, supported by nurturant collegiality or purged by accepted and meaningful ritual (Turner, 1995).

SYNDROME 2: STATUS DISORDERS (see Figure 3)

Status is an abiding concern of the human animal, so closely tied has it been with opportunities for reproduction and survival (Ellis, 1993). In the ancestral environment status relations would have exhibited much fluidity, due to the variability of resource supply, the inability to store and maintain personal wealth, and the instability of status relations caused by short life expectancy and other natural hazards (Erdal and Whiten, 1996). Since the post-agrarian growth of large fixed settlements, more permanent hierarchical structures have been a constant feature of societies, not least in work organizations. Many of the disorders of modern life stem from this fact. So while the hyperdynamic model may be becoming a frequent phenomenon in the West, we would do well to remember that in much of the rest of the world the scene is dominated by monoliths of the kind which have characterized our own industrial landscape for much of this century. This is the classic bureaucracy—the multilayered hierarchy, orga-

nized along lines of quite rigid functional division of labour and governed by elaborate systems of rules and procedures. The purpose of these arrangements is to immunize against sources of variation so that products and processes are held to guaranteed standards, and the organization is able to converge all its weight, power and size on its goal of market dominance. In the public sector a similar command-and-control logic operates where standardization is required in the mass delivery of a service.

The persistence of this form, even in Western culture, is a tribute to its power and efficiency, and to the organizational requirements for technologies which segment operations into small tightly paced and controlled components. Again, industrial sociology and psychology have tended to focus on the dysfunctional consequences of bureaucracy more than its benefits, especially how these processes separate individuals from goals and meaning of enterprise, and rigidify social relations in ways that atomize the individual, i.e. the experience of anomie and alienation (Blauner, 1964). Although scholarly treatment of Fordist bureaucracy has hardly been balanced in its treatment of this paradigmatic form, some writers have recognized the redeeming features of factory life, not least for low status members holding

secure position in a secure industry (Crozier, 1964). In the same way, primates will forego opportunities to contest high status positions in (an implicit) exchange for a secure position of subordination. Being of intermediate or low rank in an organization can be an acceptable option for status conscious humans, especially when they recognize that their resources to enter contests are modest. Individuals of low drive and limited skills are especially likely to be attracted to and remain in organizations on the basis of this contract.

This of course puts such individuals into a condition of extreme vulnerability. Being in a position of low rank in an elaborated hierarchy seems to confer a range of deleterious outcomes. Research shows impaired health, life satisfaction, life expectancy, and relationships all to be associated with status disadvantage, effects which are not simply attributable to deficiencies in resources or diet (Ellis, 1994). Parallels between the results of studies on status effects among humans, other primates and monkeys, all suggest that there is some 'pure' status effect (Brunner, 1997). Under conditions of threatened, incongruous or radically altered status, such effects become more extreme. 'Disorders of rank' as they have been called (Stevens and Price, 1996) proliferate, no more so than under the most extreme position of status degradation in the hierarchy of occupations: unemployment (Warr, 1987). Mental ill-health, suicide and other disorders have been repeatedly recorded at exceptional levels for the unemployed, again as consequences which cannot be attributed solely to impoverishment. Intriguingly, the same conclusion is reached by epidemiological data, which show that the life expectancy of populations is not related to their GDP so much as the Gini coefficient measure of wealth inequality at the level of both countries and intra-national regions (Wilkinson, 1996). By the same reasoning one can expect most low status impairment to be found within organizations with the most elaborated hierarchies and top-to-bottom power distance.

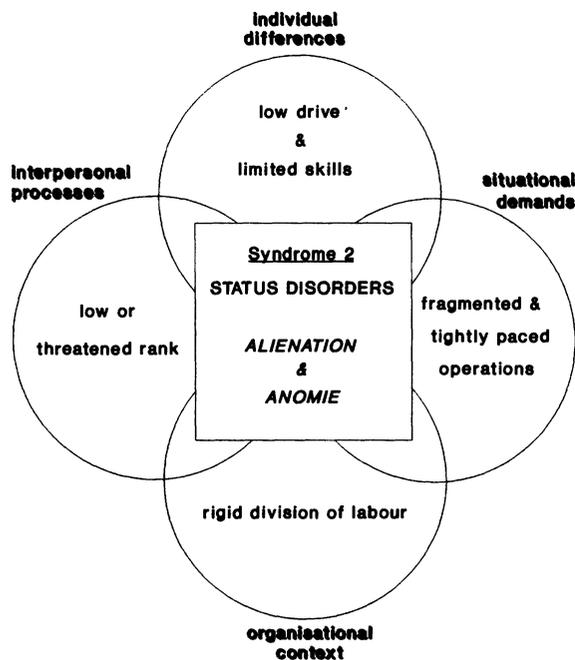


Figure 3. Syndrome 2: alienation and anomie.

SYNDROME 3: BREACHES OF CONTRACT (see Figure 4)

As a sophisticated social species our psychology is highly attuned to the trustworthiness of social relations, especially with non-kin. Indeed, the

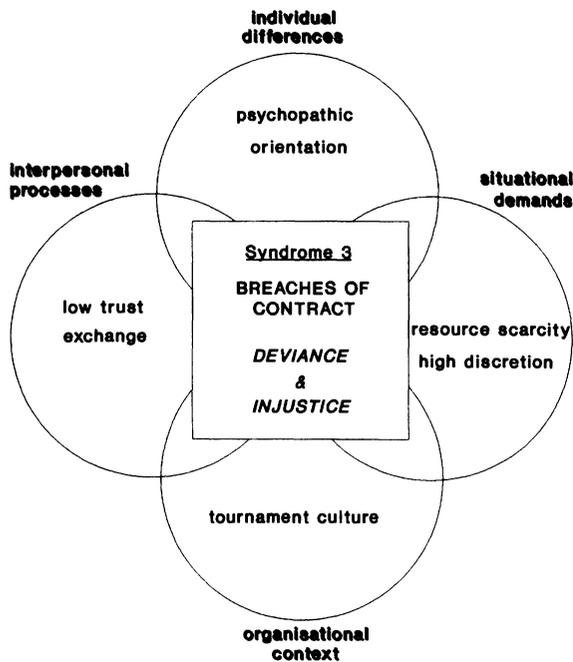


Figure 4. Syndrome 3: breaches of contract.

Machiavellian intelligence hypothesis of some evolutionists holds that much of our prodigious brain power exists to contain and comprehend the complexities of clan living (Byrne and Whiten, 1988). We are skilled in the arts of everyday mind-reading and calculated deception for the purposes of judicious mate selection, friendships and coalitions with non-kin, and for the politics of status advancement. Reciprocal altruism—probably originating in the economic necessity for food sharing—has been identified as the evolved impulse most critical to the predominance of cooperative over conflictual behaviours in resource-restricted environments. The impulse constitutes an implicit contract, and evolutionary psychologists in a sequence of experiments using variants of the Wason logic test note our high sensitivity to implicit contracts and their possible violation (Cosmides and Tooby, 1992).

The psychological contract, a concept developed nearly 40 years ago (Argyris, 1960), has of late become an abiding concern of organizational scholars. Within the field of careers, for example, much is being written about how ‘em-

ployability’ can substitute for ‘security’ as a benefit of organizational membership—an undertaking to equip employees with skills which will underwrite their external marketability in the event of job loss. There is a good deal of scepticism about the ability of employers to deliver this contract and its acceptability to employees (Gratton and Hope Hailey, 1998). Other writers have also identified a growing schism in employment relations between the most valued and skilled employees who enjoy ‘relational’ high-trust contracts, and an increasingly marginalized and contingent workforce under ‘transactional’ low-trust contracts (Robinson and Rousseau, 1994; Herriot and Pemberton, 1995).

Syndrome 3 denotes the extremes of low-trust relations which characterize some organizations: cultures where deviant behaviour is commonly deployed to gain advantage because procedural justice is not maintained (Boye and Jones, 1997). Deviance here denotes any behaviours which advance one’s individual self-interests over others in violation of espoused norms of organizational citizenship. This syndrome is perhaps especially associated with medium sized enterprises. Large organizations are generally more regulated hierarchies in which human resources and management systems apply controls to enforce implicit contracts. Small organizations are often governed by the kinds of relational contracts that typify quasi-kinship communities (Nicholson, 1996).

Opportunities for advantage through deviance are especially available under conditions of resource scarcity and high discretion, such as in many customer facing service businesses, where the individual’s value to the firm is a function of their competitive advantage over others. Implicitly, and often explicitly, advantage is secured through success in head-to-head tournaments with other aspirants (Rosenbaum, 1989). The individuals who will be attracted to and prosper in such cultures will be those with a psychopathic orientation—a combination of high power and low nurturance needs. There is a sex bias towards men as the possessors of such a profile (McCrae and Costa, 1990), and indeed this syndrome is one which thrives in male-dominated organizations. The male interest in status-oriented game playing is fed by the selective and self-selective processes discussed earlier.

SYNDROME 4: COMMUNITY SCHISMS (see Figure 5)

According to Dunbar (1996), our Machiavellian brain power is not unlimited, but sets at around 150 the size of community we can contain as an internalized mental matrix of social relations, and that we evolved in groups of these dimensions. Within these communities we would also perceive segmentation by status and kinship, with the extended family as the coalitional unit of cooperation and competition. Social psychology has long recognized our propensity to make in-group out-group discriminations, often on the basis of minimal cues. The mere act of arbitrarily labelling an undifferentiated group into sub-groups has the capacity to awaken favourable attributions of one's own group's characteristics over others (Tajfel and Billig, 1974), and with minor experimental interventions to induce full-blown intergroup conflict (Deutsch, 1949). It has been unfashionable to attribute racial and other discrimination to the 'stranger' hypothesis, but the new Darwinism impels its revisitation.

Quasi-military organizations, such as the police, where there is an emphasis upon homogeneity and (literally) uniformity, seem especially prone to rituals to emphasize sub-group identity, such as

the 'hazing' of new members, and intolerance of ethnic and gender minority group members. Accepting that we possess a psychology tuned to group affiliations and an inclination to search for visible indicators of similarity and difference as a basis for making them, such as would indicate kin-relatedness, then discrimination in heterogeneous populations is a predictable consequence.

Tribalism and discrimination, therefore, seem to be a particular risk in two kinds of organization: international companies and divisionalized (M-form) corporations. In the former case there is a large literature and much anecdotal evidence on the difficulties companies face in managing expatriate–host country national relationships, multinational teams, and international joint ventures (Torbiorn, 1982). The transaction costs under these circumstances are considerable, for team-building and to develop cadres of 'global' managers with skills and sensitivities to mediate and manage diversity. These problems and costs are minimized in highly decentralized structures with small subunits, such as the Swedish based multinational, ABB.

The M-form divisionalized organization exhibits the syndrome in a different fashion. They face perennial problems of employees identifying with subgroups rather than the organization as a whole—engendering cultures divided by function, region, product, process and other proximal group membership identifiers. Monolithic bureaucracies are only able to maintain their corporate identity through tightly integrating design principles driven by a strong strategic apex, and even then employees at best will identify with the company as a brand, reserving their psychological commitment for closer more tangible groupings. M-forms trying to maintain a lean head office with highly responsive divisions are regularly confronted by divisional/HO conflicts. Many other firms, including international and divisionalized businesses, have grown by acquisition. The persistence of identification with one or other partner to the deal after integration remains a major cause of communication blockages, decision-making failures, operational inefficiencies and other functional disintegrations, and in other cases, the failure of the mergers themselves (Cartwright and Cooper, 1995).

In segmented hierarchies (see Figure 5) segregated exchange is exacerbated by how much groups see themselves in competition for limited

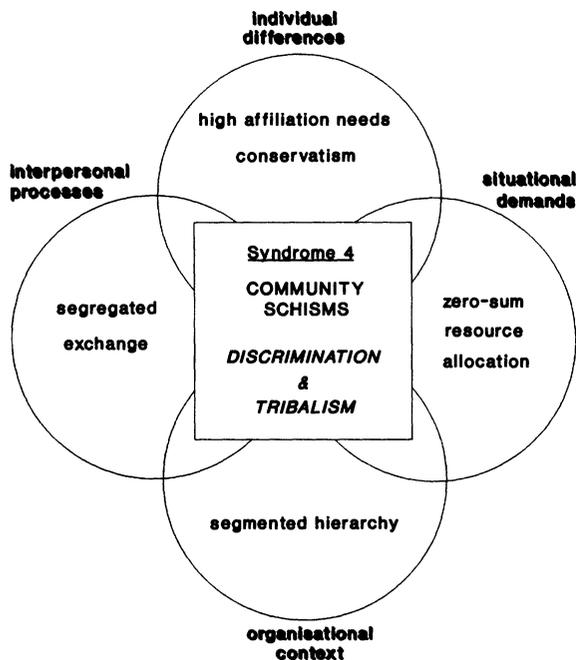


Figure 5. Syndrome 4: community schisms.

resources. In such organizations individual differences cluster around subunits to the degree that selection and self-selection is able to operate within them, as it tends to around functions, reinforcing the tribal divisions of the segmented culture. More generally, discriminatory impulses are most likely among individuals with high needs for affiliation and conservatism (low openness to experience).

SYNDROME 5: GROUP PROCESS BREAKDOWNS (see Figure 6)

Teamwork is a refined human art, especially needed for those activities most instrumental for survival and reproduction—child-rearing, communal exchange, and essential projects surrounding food acquisition and self-protection. Effective teamwork, especially at the strategic apex, is widely attributed to be the single most important predictor of successful enterprise, and group breakdowns one of the most common causes of failure (Hambrick, 1994). It is through group process that it becomes possible for diverse human skills and resources to be integrated, such that the group whole exceeds the sum of its parts.

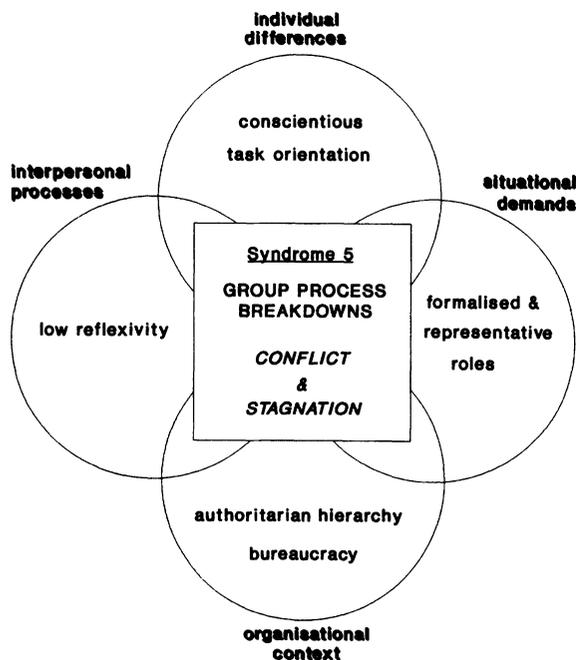


Figure 6. Syndrome 5: group process breakdowns.

In a classic series of experiments, Moscovici and Doise (1994) have illustrated the conditions under which groups can achieve this kind of creative consensus, and the required processes for doing so. These include diverse member characteristics, minimal status differentiation, external threat or competition, informality of setting and procedure, and group members not acting in representative roles on behalf of external constituencies; conditions that would have characterized many of the collective tasks of our hunter-gatherer ancestors. A similar set of conditions have been identified by scholars looking for the ingredients of high-performing organizational teams, and it is the relative rarity of these conditions that directly produces the dissatisfaction with group decision-making among employees and their managers that is commonly found in Western business settings (Hackman, 1990).

Three sets of impediments, leading to group stagnation or conflict, seem to be especially common. First, within hierarchies, especially those whose authority is highly centralized and downward flowing, only the upper levels are empowered, and groups at lower levels suffer the demotivating indignity of knowing that their decisional outputs will be absorbed, neutralized or ignored, especially if they are radical or creative (Kanter, 1983). Second, many of the organizational forms we have been considering make it difficult or impossible to detach personal from formal or functional identity. Individuals continue to act as representatives, even when it is not appropriate to do so. The injection of matrix forms into traditional hierarchies typically fails because the pull of functional identity overrides the requirements of interdisciplinary collaboration. Third, the processes of selection and self-selection create groups with insufficient diversity to achieve creative synergy. Instead, their homogeneous orientations stimulate conformity, and, in extreme cases, 'groupthink' (Janis, 1972). The forces of selection operate not just at organizational level, but arguably within the whole culture of modern business where motives for instrumentality, achievement and task focus, despite the 'new' organizational rhetoric, continue to be more highly valued than creativity, nurturance and reflection. Organizational culture within many businesses, especially in the West, contains strong implicit biases against the pro-social orientations which support effective teamwork. Key among

required features is an interest in and capacity for reflexivity—group self-examination about their own decisional processes (West, 1996). Where organizations seek to create virtual teamworking via telecommunications media many of the elements which are needed to support reflexivity, such as non-verbal signalling and empathic behaviours, are absent. In the information age we will continue to need effective face-to-face groups.

SYNDROME 6: UNMANAGED BIASES (Figure 7)

In the ancestral environment of uncertainty, danger and opportunity we evolved cognitive systems which now fit uneasily within a world of complex problem solving, rational calculus and probabilistic reasoning. The result is that we are prey to poor decision-making and errors of judgement. Three kinds of cognitive bias and one strong social bias are implicated. First are illusions of control and overconfidence effects (Langer, 1983). It has been instrumental for humans to take risks without perceiving them to be so. The need for control finds expression in beliefs that events are less random and uncontrollable than they are, that force of will can overcome serious obstacles,

and that most success and failure is due to human agency (what social psychologists call 'the fundamental attribution error'; Ross, 1977). Allied to this is 'magical' thinking in response to failure and setbacks that they could be avoided with greater prescience and control (Cannon, 1995). Our psychology feeds the syndrome through mythic representations of leadership, both in the heroic depictions of much writing about management, and in the creation of legends in everyday discourse at the workplace (Meindl, 1990). These are beneficial illusions when evoked in a major enterprise facing severe odds, but are a liability when rational analysis could save effort and risk, as in many business decisions.

The second group of biases are those in the realm of emotional reactions to events. Behavioural decision theory is replete with illustrations of how inadequately we conduct risk calculus, especially experimental confirmations of prospect theory's prediction that we exhibit strongly asymmetrical responses to loss and gain (Tversky and Kahneman, 1992). The asymmetry is that under conditions of gain, we are motivated to maintain our position and not incur loss by risk-taking (Shapira, 1994). The result is failure to capitalize on risky opportunities (e.g. by innovation) when successful, and to chase losses when down, resulting in escalating commitment to failing courses of action. The persistence effect calls upon both control-seeking and loss-avoidance biases, and explains the common phenomenon of managers continuing to sink resources into projects and strategies long after it would have been sensible to cut their losses. The effect is well-known on trading floors, where the maxim 'cut your losses and let your profits run' is drilled into traders to counteract human instinct to the contrary. In our current research on traders at London Business School, we find firms vigilant in protecting against loss-averse reactions, though less strategic in capitalizing upon gains.

The third group of biases are failures in probabilistic reasoning (Bazerman, 1994). The enormous computing power of the human brain is a poor contestant against even the most elementary mechanical computational devices. But our powers are unsurpassed when it comes to dynamic taxonomies, actively self-organizing memory, and strategic heuristics (Pinker, 1997). It has taken generations of computing power to run through endless look-ahead routines to match the human

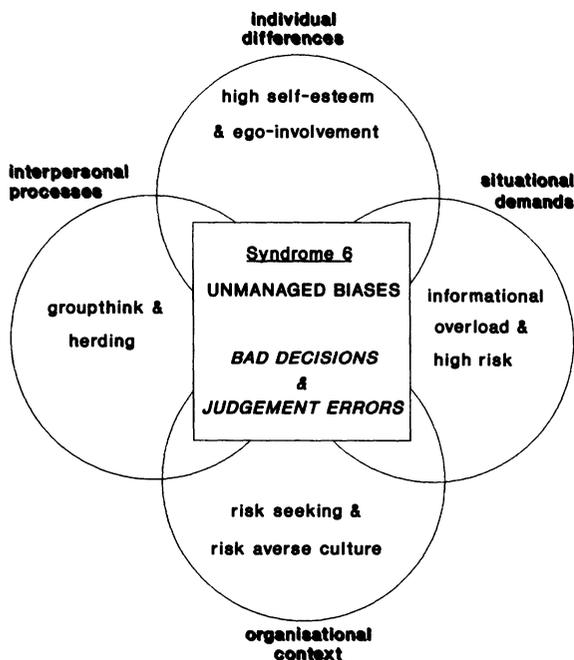


Figure 7. Syndrome 6: unmanaged biases.

prowess in chess, based upon fluid pattern recognition and schematic heuristics. We have the intelligence of path-finders in a dynamic environment of hunting, foraging and social exchange, not of statisticians. Thus we are attuned to frequencies much more than probabilities, and classification much more than calculus. Again, behaviour decision theorists have illustrated how easy it is to induce fallacious reasoning with numerical data, while at the same time anthropologists note the astonishing taxonomic knowledge of pre-literate peoples about their environments (Mithen, 1996). In information-rich organizational environments we are exposed to errors through these biases—in situations of high information complexity we tend to simplify and classify, overweight personal experience and socially mediated information sources, pay selective attention to familiar stimuli and allow ourselves to be influenced by the contextual frame of information.

The fourth group of social biases augment these tendencies. Group-think—premature norming in group decision-making—we have already considered. Herding is a related decisional bias. It is a useful but dangerous simplifying heuristic in complex decisional environments to let others do the work for you, and follow what other informed decision-makers are doing, rather than try to figure out for oneself the true value of an array of options (Russon, 1997). Much market behaviour follows this pattern (Devenow and Welch, 1996). Investors follow the trends rather than trusting their own judgement, which enables contrarian investors such as George Soros occasionally able to beat the market, and induce herds of followers to imitate them, sometimes sufficiently to move the entire market in their favour.

Figure 7 illustrates the conditions under which we may expect these phenomena to be most salient. Cultures in which risk is sought, such as investment banking, and others where it is to be avoided, such as military organizations, both need to incorporate special devices to avoid the dangers posed by each of these orientations. In trading environments, computational modelling takes some of the strain from human judgement, and in military organizations, divided responsibilities and operational routines are designed to restrain the decisional autonomy and executive power. In all business settings, however, informational overload and high risk are prey to the problems we have reviewed. In many, they are exacerbated by

poor error-management systems—feedback systems which punish error rather than provide the social support and analytical reflection which enable productive learning to take place (Frese, 1996). Finally, the risks of error and poor judgement are greatest when decision-makers are confident and have high self-esteem—greater vulnerability to illusions of control, insensitivity to feedback and reliance on personal rather than technically mediated information (Kernis *et al.*, 1982).

SYNDROME 7: POWER FAILURES (see Figure 8)

In primate colonies the struggle for dominance is played out as a continual political drama for which the prize, even if only temporary, is improved access to sex, food, and security (de Waal, 1982). The parallels between these dramas and human intercourse have been frequently noted, not least in patriarchal and polygynous species (of which we are one) in the alpha male phenomenon. Displays of power and aggression are practiced by leaders, and responses of submission and deference by the most powerless followers (Kets de Vries, 1989). Interestingly, it has been noted that

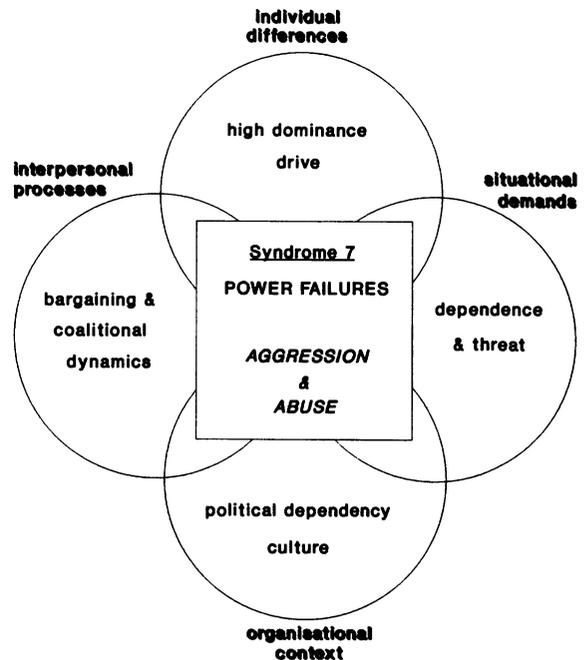


Figure 8. Syndrome 7: power failures.

the despotic model of primate dominance is moderated to more egalitarian forms among primate colonies under conditions of overcrowded captivity. Leadership style and cooperative behaviours adapt to the circumstances of the community (Power, 1991).

It is well-known that despotic and charismatic leadership in human society thrives under conditions of deprivation and threat (Burns, 1978). Powerless followers look to powerful leaders to bolster their sense of self-esteem and security. In business these conditions seem to exist especially in small to medium sized entrepreneurial firms, where survival requires aggressive competition against established opposition. My own recent research on the leaders of such businesses confirms they possess unusually high dominance 'alpha male' personality profiles (Nicholson, 1998b). Studies of entrepreneurial family firms shows such leaders to be surrounded by cultures of political dependency in which interpersonal processes are governed by the kinds of shifting coalitional bargaining relationships observed in primate colonies (Kets de Vries, 1993).

The problem of authoritarian leadership is not confined to such firms. In any organization males with high dominance needs are motivated to recreate power-dependency relationships, and it is common to read press reports of male bullying of subordinates. One UK study found 77% respondents had witnessed bullying with women as the overwhelming recipients and male managers the perpetrators in most cases (Lockhart, 1997). This is called 'mobbing' in work psychology, and is typically associated with leaders operating under conditions of high autonomy (Zapf, 1997). Research has also found an association between high self-esteem and violent and aggressive managerial behaviour (Baumeister *et al.*, 1996).

One of the most common power failures in business is the problem of leadership succession. The dominance-dependence model is one in which leaders attract and cultivate submissive lieutenants, suppress and remove potential challengers to their authority, and closely involve themselves in decisions at lower levels of the business. The result is that they typically outstay their usefulness and make inadequate preparations for their own replacement. Patriarchal family firms and political dynasties exhibit this pattern with alarming frequency, and many do not outlast the enforced departure of their chiefs

when they eventually go (Dyer, 1986). The problem can be traced to the rigidifying of power relations in the control regimes of business organizations, unlike the dominance hierarchies of our ancestors in which opportunities for contested leadership would regularly occur.

IMPLICATIONS FOR 21ST CENTURY ORGANIZATIONS

Does this imply (a) that somewhere in our past the clan model represents some kind of ideal of social and work organization, and (b) that we can recreate these in the contemporary context? It is important we do not fall prey to idealized conceptions of our ancestors as noble savages inhabiting a harmonious Eden. The truth is that every form of human social organization produces its own characteristic ills and discontents. Hunter-gatherer communities may have avoided many of the ills we now confront in organizational life but it should be remembered that murder, rape, and intergroup conflict were social phenomena then as now. However, as integrated communities they were able to self-regulate in ways that we now find difficult. Anthropological evidence suggests that they did so by the means illustrated in Figure 9.

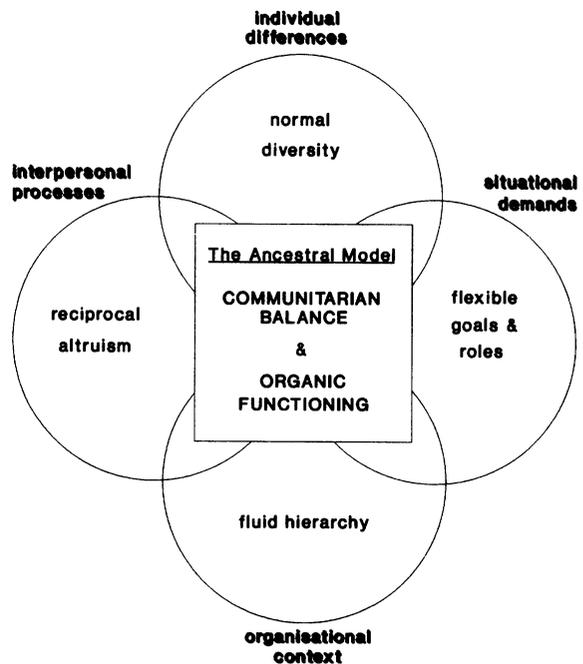


Figure 9. The ancestral model.

First, the community, in the absence of devices for the selection and self-selection of membership, would have exhibited a statistically normal diversity of individual differences. This has a number of important consequences. The community is forced to accommodate the range of its diversity through its own regulatory mechanisms. These would need to incorporate solidaristic processes for tolerance and social support, as have been attributed as the cause of the low incidence of mental ill-health in many tribal communities. In contemporary society the same phenomenon was closely studied in the relatively small Pennsylvanian town of Roseto, where exceptional levels of physical and mental health were associated with strongly cohesive kinship ties across the community, both of which both declined as growing affluence eroded egalitarianism over two decades (Wolf and Bruhn, 1993). Indeed, merely belonging to community clubs has been found to promote psychological and physical health.

Second, reciprocal altruism operates most reliably in relatively closed communities, where, in the language of game theory, first mover cooperation makes strategic sense when players are exposed to repeated encounters with other players. Acts of sharing without immediate return are likely to yield both reputational and material gains in the long term. Third, flexible goals and roles facilitate the tasks, varied in scale, difficulty and content, which the community may need to face. Fourth, the same changing landscape of projects and the need for different authority structures to serve them favours fluid rather than rigid hierarchy, as in the alternating leadership of some American First Nations tribes in times of peace and war. At other times hierarchy may almost disappear, as when 'politics stops at the water's edge' (Ridley, 1996).

Can such conditions be recreated in business? Some small organizations with diffuse and varied goals, decentralized resources, and relatively stable membership may come close, for example in consultancy and other service businesses. However, because they cannot be isolated from the wider labour market of a segmented society, they inevitably find it difficult to maintain conditions of stable yet diverse membership. The churning of new members, selected and self-selecting on the basis of niche preference, means that they are likely to depart from the ancestral model in two respects. Changing membership creates dangers of

fragmentation and conditional loyalty, while low diversity engenders insufficient challenge, creative tension and synergy.

In general the contingencies which influence organizational design will continue to bias towards the familiar forms we see around us. Available technologies of production and market forces in a segmented global economy mean that classical bureaucracies, multidivisional corporations, entrepreneurial firms, and hyperdynamic enterprises of the kinds we have considered will remain viable and common strategic solutions for their distinctive goals. Selection and self-selection will continue to segment the profiles of their memberships. How then are the seven syndromes discussed to be avoided? Possibly as follows:

1. Raised awareness through management education of the role of emotions in work experience, the conscious use of collective means for confronting and recognizing emotion, and giving space and resources to support individuals most exposed to stressors.
2. Flexing where possible the scheduling of operations and blurring divisions of labour by multi-tasking; creating management systems and contracts which offer protection and support to low status members.
3. Policing the psychological contract to guarantee procedural justice; making transparent the rules of engagement for contested resources and positions.
4. Increasing lateral mobility of personnel across subunits; creating cross-functional projects and superordinate goals which transcend local interest groups.
5. Developing group structures, memberships and processes which aid the extraction of value from diversity; training group process skills for reflexive decision-making.
6. Deploying decision aids to manage informational complexity and load; generating routines for the restraint of autonomous judgement and the constructive management of error.
7. Empowerment and feedback methods which raise leaders' awareness of the consequences of their actions; succession and development plans for intergenerational transition.

None of these is easy. The obstacles which prevent these corrective measures are both economic and psychological. Short term gains in

effort and achievement obscure perception of the longer term benefits of these correctives, and individual and cultural values follow impulse rather than judgement in the absence of constraint. However, the integrated view of the human animal and its social existence presented by evolutionary psychology indicates the tangible benefits of overcoming these obstacles. Applied to the organizational sphere it can help managers and leaders to perceive rational self-interest in finding new ways to work with the grain of human nature.

REFERENCES

- C. Argyris (1960). *Understanding Organizational Behavior*, Homewood, IL: Dorsey.
- R.F. Baumeister, J.M. Boden and L. Smart (1996). Relation of threatened egotism to violence and aggression: the dark side of high self-esteem. *Psychological Review*, **103**, 5–33.
- M.H. Bazerman (1994). *Judgment in Managerial Decision Making*, 3rd edn, New York: Wiley.
- R.W. Beatty and D.O. Ulrich (1993). Re-energizing the mature organization. In *Managing Change* (edited by T.D. Jick), Homewood, IL: Irwin.
- R. Blauner (1964). *Alienation and Freedom: The Factory Worker and his Industry*, Chicago: University of Chicago Press.
- T.J. Bouchard (1997). Genetic influence on mental abilities, personality, vocational interests and work attitudes. In *International Review of Industrial and Organizational Psychology, 1997, Vol. 12* (edited by C.L. Cooper and I.T. Robertson), Chichester: Wiley.
- M.W. Boye and J.W. Jones (1997). Organizational culture and employee counterproductivity. In *Antisocial Behavior in Organizations* (edited by R.A. Giacalone and J. Greenburg), Thousand Oaks, CA: Sage.
- J.M. Brett, V.H. Medvec and L.K. Stroh (1998). The overworked American manager. Paper presented to the Careers Reality Conference, London Business School, March.
- E.J. Brunner (1997). Stress and the biology of inequality. *British Medical Journal*, **314**, 1472–1476.
- J.M. Burns (1978). *Leadership*, New York: Harper & Row.
- R.W. Byrne and A. Whiten (1988). *Machiavellian Intelligence: Social Expertise and the Evolution of Intellect in Monkeys, Apes and Humans*, Oxford: Clarendon Press.
- D.C. Cannon (1995). *Making Sense of Failure: Learning or Defence?* Unpublished PhD thesis, London Business School, University of London.
- S. Cartwright and C.L. Cooper (1995). *Managing Mergers, Acquisitions and Strategic Alliances: Integrating People and Cultures*, London: Butterworth.
- L. Cosmides and J. Tooby (1992). Cognitive adaptations for social exchange. In *The Adapted Mind: Evolutionary Psychology and the Generation of Culture* (edited by J.H. Barkow, L. Cosmides and J. Tooby), New York: Oxford University Press.
- M. Crozier (1964). *The Bureaucratic Phenomenon*, Chicago: University of Chicago Press.
- A. Devenow and I. Welch (1996). Rational herding in financial economics. *European Economic Review*, **10**, 603–615.
- M. Deutsch (1949). An experimental study of the effects of cooperation and competition among group processes. *Human Relations*, **2**, 199–231.
- F. de Waal (1982). *Chimpanzee Politics*, Baltimore: Johns Hopkins University Press.
- R. Dunbar (1996). *Gossip, Grooming and Evolution of Language*, London: Faber & Faber.
- W.C. Dyer (1986). *Cultural Change in Family Firms: Anticipating and Managing Business and Family Transitions*, San Francisco: Jossey-Bass.
- K.M. Eisenhardt and M.J. Zbaracki (1992). Strategic decision making. *Strategic Management Journal*, **13**, 17–37.
- L. Ellis (1993). A biosocial theory of social stratification: an alternative to functional theory and conflict theories. In *Social Stratification and Socioeconomic Inequality. Vol. 1: A Comparative Biosocial Analysis* (edited by L. Ellis), New York: Praeger.
- L. Ellis (1994). Social status and health in humans: The nature of the relationship and its possible causes. In *Social Stratification and Socioeconomic Inequality. Vol. 2: Reproductive and Interpersonal Aspects of Dominance and Status* (edited by L. Ellis), New York: Praeger.
- D. Erdal and A. Whiten (1996). Egalitarianism and Machiavellian intelligence in human evolution. In *Modelling the Early Human Mind* (edited by P. Mellars and K. Gibson), Cambridge: McDonald Institute for Archaeological Research.
- M. Frese (1996). Error management in training: conceptual and empirical results. In *Organizational Learning and Technological Change* (edited by S. Bagnara, C. Zuccheromaglio and S. Stucky), New York: Springer-Verlag.
- D. Geddes (1994). The relationship between negative feedback and increased organizational aggression. Paper presented to the Academy of Management, Dallas, TX.
- L. Gratton and V. Hope Hailey (1998). Making the rhetoric of new careers a reality for employees. Paper presented to the Career Realities Conference, London Business School, March.
- L. Greenhalgh and R. Sutton (1991). Organizational effectiveness and job insecurity. In *Job Insecurity: Coping with Jobs at Risk* (edited by J.F. Hartley, D. Jacobsen, B. Klandermans and T. van Vuuren), London: Sage.
- L. Greiner (1972). Evolution and revolution as organizations grow. *Harvard Business Review*, July–August, 37–46.
- J.R. Hackman (ed.) (1990). *Groups That Work (and Those That Don't): Creating Conditions for Effective Teamwork*, San Francisco: Jossey Bass.

- D.C. Hambrick (1994). Top management groups: a conceptual integration and reconsideration of the 'team' label. In *Research in Organizational Behavior*, Vol. 16 (edited by L.L. Cummings and B.M. Staw), Greenwich, CT: JAI Press.
- M.T. Hannan and G.R. Carroll (1992). *Dynamics of Organizational Populations: Density, Competition, and Legitimation*, New York: Oxford University Press.
- P. Herriot and C. Pemberton (1995). *New Deals: The Revolution in Managerial Careers*, Chichester: Wiley.
- I.L. Janis (1972). *Victims of Groupthink: A Psychological Study of Foreign Policy Decisions and Fiascos*, Boston: Houghton Mifflin.
- R.M. Kanter (1983). *The Change Masters*, New York: Simon & Schuster.
- R.A. Karasek and T. Theorell (1990). *Healthy Work: Stress, Productivity and the Reconstruction of Working Life*, New York: Basic Books.
- M.H. Kernis, M. Zuckerman, A. Cohen and S. Spadafora (1982). Persistence following failure: the interactive role of self-awareness and the attributional basis for negative expectancies. *Journal of Personality and Social Psychology*, **43**, 1184–1191.
- M.F.R. Kets de Vries (1989). *Prisoners of Leadership*, New York: Wiley.
- M.F.R. Kets de Vries (1993). The dynamics of family controlled firms. *Organizational Dynamics*, Winter, 59–71.
- D. Knights and D. McCabe (1998). What happens when the phone goes wild? Staff, stress and spaces for escape in a BPR telephone banking work regime. *Journal of Management Studies*, **35**, 163–194.
- E.J. Langer (1983). *The Psychology of Control*, Beverley Hills, CA: Sage.
- J.E. LeDoux (1996). *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*, New York: Simon & Schuster.
- K. Lockhart (1997). Experience from a staff support service. *Journal of Community and Applied Social Psychology*, **7**, 193–198.
- B. Lovas and S. Ghoshal (1998). Strategy as guided evolution. Unpublished working paper. Strategic Leadership Research Programme, London Business School.
- R.R. McCrae and P.T. Costa (1990). *Personality in Adulthood*, New York: Guilford Press.
- R.R. McCrae and P.T. Costa (1997). Personality trait structure as a human universal. *American Psychologist*, **52**, 509–516.
- T. Megarry (1995). *Society in Prehistory: The Origins of Human Culture*, London: Macmillan.
- J.R. Meindl (1990). On leadership: an alternative to the conventional wisdom. In *Research in Organizational Behavior*, Vol. 12 (edited by B.M. Staw and L.L. Cummings), Greenwich, CT: JAI Press.
- S. Milgram (1974). *Obedience to Authority*, New York: Harper & Row.
- S. Mithen (1996). *The Prehistory of the Mind*, London: Thames & Hudson.
- S. Moscovici and S. Doise (1994). *Conflict and Consensus*, London: Sage.
- N. Nicholson (1996). Career systems in crisis: change and opportunity in the information age. *Academy of Management Executive*, **10**, 40–51.
- N. Nicholson (1997). Evolutionary psychology: towards a new view of human nature and organizational society. *Human Relations*, **50**, 1053–1078.
- N. Nicholson (1998a). Motivation-selection-connection. An evolutionary model of career development. Paper presented to the Career Realities Conference, London Business School, March.
- N. Nicholson (1998b) Personality and entrepreneurial leadership: a study of the heads of the UK's most successful independent companies. *European Management Journal*, in press.
- B.D. Pierce and R. White. The evolution of social structure: why biology matters. *Academy of Management Review*, in press.
- S. Pinker (1997). *How the Mind Works*, New York: Norton.
- M. Power (1991). *The Egalitarians—Human and Chimpanzee: An Anthropological View of Social Organization*, Cambridge: Cambridge University Press.
- L.L. Putnam and D.K. Mumby (1993). Organizations, emotion and the myth of rationality. In *Emotion in Organizations* (edited by S. Fineman), London: Sage.
- M. Ridley (1993). *The Red Queen: Sex and the Evolution of Human Nature*, London: Viking.
- M. Ridley (1996). *The Origins of Virtue*, London: Viking.
- S.L. Robinson and D.M. Rousseau (1994). Violating the psychological contract: not the exception but the norm. *Journal of Organizational Behavior*, **15**, 250–259.
- J.E. Rosenbaum (1989). Organizational career systems and employee misperceptions. In *The Handbook of Career Theory* (edited by M.B. Arthur, D.T. Hall and B.S. Lawrence), Cambridge: Cambridge University Press.
- L. Ross (1977). The intuitive psychologist and his shortcomings: distortions in the attribution process. In *Advances in Experimental Social Psychology*, Vol. 10 (edited by L. Berkowitz), New York: Academic Press.
- A.E. Russon (1997). Exploiting the expertise of others. In *Machiavellian Intelligence II: Extensions and Evaluations* (edited by A. Whiten and R.W. Byrne), Cambridge: Cambridge University Press.
- B.W. Schneider (1987). The people make the place. *Personnel Psychology*, **40**, 437–453.
- Z. Shapira (1994). *Risk Taking: A Managerial Perspective*, New York: Russell Sage Foundation.
- A. Stevens and J. Price (1996). *Evolutionary Psychiatry*, London: Routledge.
- A.L. Stinchcombe (1965). Social structure and organizations. In *Handbook of Organizations* (edited by J.G. March), Chicago: Rand McNally.
- H. Tajfel and M. Billig (1974). Familiarity and categorization in intergroup behavior. *Journal of Experimental Social Psychology*, **10**, 159–170.
- S.E. Taylor (1991). Asymmetrical effects of positive and negative events: the mobilization-minimization hypothesis. *Psychological Bulletin*, **110**, 67–85.

- J. Tooby and L. Cosmides (1992). The psychological foundations of culture. In *The Adapted Mind: Evolutionary Psychology and the Generation of Culture* (edited by J.H. Barkow, L. Cosmides and J. Tooby), Oxford: Oxford University Press.
- I. Torbiorn (1982). *Living Abroad: Personal Adjustment and Personnel Policy in the Overseas Setting*, Chichester: Wiley.
- F. Turner (1995). Shame, beauty, and the tragic view of history. *American Behavioral Scientist*, **38**, 1060–1075.
- A. Tversky and D. Kahneman (1992). Advances in prospect theory: cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, **5**, 297–323.
- P.B. Warr (1987). *Work, Unemployment and Mental Health*, Oxford: Clarendon Press.
- M.A. West (1996). Reflexivity and work group effectiveness. A conceptual integration. In *The Handbook of Work Group Psychology* (edited by M.A. West), Chichester: Wiley.
- A. Whiten (1998). The evolution of deep social mind in humans. In *The Evolution of the Hominid Mind* (edited by M. Corballis and S.E.G. Lea), Oxford: Oxford University Press.
- R. Wilkinson (1996). *Unhealthy Societies: The Affliction of Inequality*, London: Routledge.
- S. Wolf and J.G. Bruhn (1993). *The Power of the Clan; A 25-year Prospective Study of Roseto, Pennsylvania*, New Brunswick, NJ: Transaction Publishers.
- D. Zapf (1997). Organizational, work group related and personal causes of mobbing at work. Paper presented to 8th Congress of European Work and Organisational Psychology, Verona, Italy.
- P.G. Zimbardo (1972). Pathology of imprisonment. *Society*, April.