The resilience audit and the psychological contract

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The resilience audit

The need for organizations to respond quickly to change, to be adaptive, and to learn from their experiences has become a truism throughout the 1980s and 1990s. There is a large body of literature on organizational change and development, aimed at resolving questions such as why change is difficult to achieve successfully, why people resist change and how effective change programmes may be implemented. Parallel and related to this area, given that change is acknowledged as stressful, is a further body of research investigating aspects of stress such as what people find stressful, how they cope with stress and predispositions to the experience of stress. Organizational research in this area has looked mainly at causal modelling, directed at identifying variables which will cause stress, and seeking responses which will minimize its effect on individuals. This approach, although important, obscures what we can learn from studying individuals and groups who defy expectation and cope with significant change and adversity.

Psychiatrists and family psychologists in particular have been interested to learn more about what constitutional, social and genetic factors enable some individuals to continue to perform well while subject to tremendous pressure. They have considered how certain families adapt to adverse circumstances while others fragment. Families are considered as social systems, composed of interrelated and interdependent parts. Organizations may be similarly defined, and similar questions may be posed. Why do some companies survive by adapting while others fail? This paper explores the parallels which can be drawn between the responses to stress and change exhibited by individuals within family social systems, and those exhibited within business organizations.

The concept of "resilience" has been used to describe positive responses to stress and is recognized as a distinct field of enquiry in its own right[1]. Not viewed as a fixed individual trait, it has been seen as an interactive concept concerned with maintaining adaptive functioning in spite of experienced risk or stress. A recent review of measures of family functioning identified nearly 1,000 instruments which have been developed over the last 50 years[2]. A major factor in the development of many of these instruments concerned which elements of social process it was most important to measure, how this could best be achieved, and how to classify "health" in terms of social systems.

Analyses of these different measures reveals that resilience has been generally viewed as comprising six dimensions:

(1) *Power structure*. In a resilient social system, there is a clear structure and clear responsibilities, but the structure is not rigid. Structures are modifiable to accommodate changing needs of the system and its members.

(2) *Relationships*. Members of the system show a high level of trust; they support and provide encouragement for each other which enhances spontaneity and creativity.

(3) *Reality sense*. The resilient social system has a self-image which is congruent with reality. This enables members to process the information available without embellishment or inappropriate filtering.

(4) *Attitude to change*. There is a recognition of the need to change at an earlier stage than in other systems. The anxiety generated by this recognition is at lower levels.

(5) *Differentiation*. Members see themselves as being part of the system, but retain their own sense of identity. They are neither isolated, nor lost in "groupthink".

(6) *Communication*. Open, clear, direct and frank; members are receptive and responsive to new ideas, there are low levels of rumour and gossip.

The original research identifying the six dimensions, known as the "Timberlawn study", was conducted some 20 years ago[3]. Since then, there has been considerable interest in examining the validity of the six dimensions of family resilience. Subsequent studies using factor-analytic techniques on the Timberlawn data identified two key dimensions of resilient family functioning which they labelled cohesion and flexibility[4]. The research reported here indicates that, within organizations, a five-dimensional model of resilience is more appropriate.

Within each of the dimensions, there are three levels of functioning ranging from dysfunctional through mid-range functioning to resilient functioning. For each dimension, resilient functioning is hypothesized to be most viable for adaptable functioning.

This paper later describes the development of the resilience audit designed to enable the researcher or consultant to place an individual, team or department or organization within the resilience model. The utility of resilience as a framework for understanding the current adaptability of specific companies and in predicting how people will adapt to change is confirmed.

The resilient organization and the psychological contract
To understand fully the resilience of an individual, it is important to consider the interaction between that individual and the environment. This can be broadened to a consideration of organizational culture and the concept of a

"resilient organization". Broadening the study of individual responses to stress to consider the social systems within which individuals operate, has already proved fruitful in other areas of research, notably psychiatric risk research[5]. Thus a resilience model needs to be systemic and consider the individual in the context of his or her working group, and the individual in relationship with the employing organization.

A critical dimension of the employee/employer interaction is the psychological contract, representing the implicit exchange between the parties of factors such as social support, promotion prospects and job satisfaction in return for, perhaps, organizational commitment and organizational socialization[6]. The psychological contract will need to be renegotiated in times of change and it is suggested that the quality of resilience within organizations will facilitate this renegotiation.

This paper confirms that a model of resilient organizations may be constructed. Although the dimensions drawn earlier from therapeutic research and outlined above do not appear to map directly on to organizational functioning, the key features of the dimensions are retained. This is entirely consistent with the fact that, although families and organizations are both examples of social systems, they may differ considerably in terms of structures, functions and purpose.

An organizational culture showing advanced development across the dimensions of power structure, relationships, reality sense, attitude to change, differentiation and communication has obvious implications for the psychological contract. Most considerations of the psychological contract suggest that it is bi-dimensional, encompassing both transactional and relational elements[7], and that traditionally, although as subjective perceptions each contract must be unique, a common element is likely to be an understanding that companies will offer some measure of job security in exchange for adequate performance and some degree of loyalty.

Current realities in the world of work are such that employees can no longer count on job security, even if they do their jobs well and are loyal to their organization. Waterman *et al.*[8] argue that the traditional contractual focus on employment is no longer appropriate and that the focus of the psychological contract should now be on "employability", or the development of competitive skills needed to find work when individuals need it, wherever they can find it. A psychological contract which does not promise long-term security in return for loyalty and commitment will be more difficult to negotiate, but does not run the risk of violation in times of rapid change and adaption. One aspect of the relational dimension of the "new" psychological contract is the dimension of "career resilience". This describes a psychological contract that offers individuals the tools, the open environment and the opportunities for assessing and developing their skills. In return, employees accept responsibility for and have loyalty to their own careers, and offer the organization an adaptable and responsive skill base, and commitment to the company's success. One aspect of the new contract base is an acceptance by both employee and employer that

their employment relationship will terminate when a "win-win" relationship is no longer possible.

Within this new framework of career resilience, traditional expectations of loyalty and security are absent from the psychological contract, and thus the risk of anti-role behaviours following threats to job security, a major feature of economic life in the present climate, are minimized. As well as providing an appropriate organizational strategy in a world of constant change, the notion of career resilience has a more immediate relevance. Sun Microsystems in 1991 noted that employees were angry if they found that they lacked the skills to move employment, and when they perceived that the old psychological contract had been violated, with nothing to take its place. Sun therefore established a career resilience programme designed to "put employees back in control of their lives". The aims of the programme are twofold; first to create a "nimble" organization; and, second (although not necessarily in that order), to ensure that individuals regularly assess their skills, interests and values so that lifelong learning and appropriate career development can take place.

As environments change, so indeed do the expectations and needs of both parties, and the risk of violating the psychological contract rises. In response to, factors such as economic downturns and changing management practices, employees may re-evaluate the employment relationship and this re-evaluation may indicate to the employee that his or her psychological contract has been violated. Limited research on violations of psychological contracts indicates that violations, or perceived violations, have been found to be negatively related to trust, organizational citizenship behaviours, employees, relational obligations and employee withdrawal behaviours[9]. The perceived violation of the psychological contract may have profound implications for organizations. Wiesenfeld and Brockner[10] suggest that contracts become more transactional following violation. This will result in a move from socio-emotional aspects of work, involving less benevolent or role-enhancing behaviours, and an emphasis on the pecuniary aspects of the job, to distance the individual psychologically from the source of violation. It is suggested further that even anti-role behaviours may ensue, associated with feelings of alienation or marginalization. Accompanying this process may be factors such as lowered job involvement, loyalty and commitment, with implications for organizational performance.

Organizational survey – awareness of change measurement tools
Change programmes are rarely perceived as meeting their goals and Doe (cited in [10]) reports that 90 per cent of failed change initiatives are perceived as being due to inadequate consideration of human factors. During change, an organization will be "at risk" of perceived violations of psychological contracts, and thus the outcome of a change programme will be partly dependent on the organization's ability to renegotiate these contracts successfully. It is suggested that resilient organizations will be more effective in such negotiations and will be better able to minimize the risk of contract violation. If this is so, then it

becomes a matter of importance that organizations measure their resilience and understand how they might make themselves more resilient. In order to establish the extent to which organizations can assess their ability to cope with change, a survey of current attitudes and practices with respect to change was conducted. The purpose of the survey was threefold:

(1) to establish what are perceived to be key cultural facilitators in effecting organizational change;

(2) to establish the number of organizations which measure the ability of their people to respond positively to change;

(3) to determine the perceived utility of using such measurements.

Survey sample and method
A telephone survey of 70 service sector companies which had 200 or more employees, an annual turnover of at least £1m, and which had undergone or were undergoing significant change, was conducted. Questions were asked concerning the factors perceived to affect change, and measurement of those factors both pre- and post-change programmes.

Factors affecting change. Following earlier pilot survey research not reported here, respondents were asked to rank four factors (strong leadership, adaptable people, financial resources and clarity of purpose/mission) in terms of their importance to facilitating change. Analysis of these data indicated leadership, adaptable people and purpose were perceived to be equally important. Financial resources received the lowest ranking.

The measurement of culture with respect to change. The survey revealed that of those companies acknowledging an awareness of change measurement techniques (43 per cent), a large proportion were confused as to the distinction between psychometric tools designed to assess personality characteristics and measures of organizational culture. It is likely that some of the lack of knowledge indicated by the results is in fact reflecting the lack of availability of suitable instruments. However, only just over half the sample (58 per cent) reported satisfaction with measures used. This is probably indicative of inappropriate measures being used and therefore irrelevant results being obtained.

Survey conclusion
The survey thus indicated that while adaptable people are rated as one of the most important factors for successful change, the majority of companies do not measure their people's ability to change, and the rest are using inappropriate instruments. It is felt that these results indicate that the development of a dedicated measurement instrument designed to assess an organization's capacity to respond positively to change would be of use and relevance to organizations coping with, or looking towards, change.

Development of the resilience audit

The audit[11] was designed so that individuals can describe how they perceive themselves, their team and the organization of which they are a part. It was intended to develop an instrument which was easy to administer, took no longer than 15 minutes to complete, and which would identify particular areas of vulnerability which would impair the ability of an organization to change effectively.

The initial content of the audit was based on the Beavers-Timberlawn "Self-report family inventory" and the "Family adaptability and cohesion evaluation scale"[12]. After piloting in six organizations, the item content was revised to reflect more accurately the experience of people working in an organizational as opposed to a family setting, and to include other items of importance generated from validation interviews.

Initially, a 68-item self-report questionnaire (five-point, Likert type) was designed to cover the six dimensions described above. The items in the questionnaire reflect both positive and negative functioning to avoid response bias. To determine the level of functioning across the dimensions, scores are summed and converted into standard scores using centile charts. These charts are based on normative data generated from work with different organizations. Resilient functioning represents a score at or above the 80th centile. A centile score of 20 or below indicates dysfunctional organizational process. These boundaries were intuitively set following the evaluation of descriptive data on organizational performance from the pilot interviews.

Audit results

The audit has now been carried out within a variety of organizations, ranging from a large public sector organization, to small executive teams in private companies. Some 339 individuals have completed the audit, and normative data are being collected. The following summarizes the statistical analyses conducted to determine the internal reliability and face validity of the instrument.

Item analysis. Preliminary item screening of the data consisted of using descriptive statistical techniques. Means and standard deviations were calculated for each of the 68 questionnaire items. The results indicated that, for the most part, sample means fluctuated around the value of 3.0 – the mid-point for the scale. Standard deviations varied between 0.81 and 1.09, indicating some degree of variation among individuals. Analysis of the proportion of missing data associated with each item ranged between 0.8 per cent and 2.9 per cent. Given the low percentage of missing data and the lack of any discernible trend associated with any one specific item no question was excluded on the basis of non-applicability.

Reliability. Cronbach's alpha was calculated for the 68 questionnaire items. The alpha reliability coefficient was 0.92 indicating that the measure has excellent internal reliability. Closer inspection of the correlation coefficients associated with individual items indicated ten questions had particularly low correlations. These items were all to do with aspects of communication,

particularly the communications of an evaluative or emotional nature. The alpha value would increase if these items were deleted from the scale. A further analysis using the reduced-item set gave a reliability coefficient of 0.93. The ten items were deleted from the audit on the basis of the reliability analysis. It is felt that this cluster of items warrants further independent investigation

Factor study. An important objective of the development of the audit was to determine whether the six dimensions, identified in the family research literature, had utility in an organizational setting.

The remaining 58 items were factor analysed using principal components analysis (PCA) to determine the face validity of the six dimensions used in the family resilience model. Varimax and oblimin rotation were used, neither of which supported a six-factor model but offered robust support for five factors. Initial statistics indicated that the distribution of values did not violate the statistical assumptions for conducting factor analysis (Kaiser-Mayer-Olkin = 0.790). The initial PCA yielded 18 factors – factors with an eigenvalue greater than or equal to one – which accounted for 68.8 per cent of the variance. The factor structure indicated a main factor accounting for 22.2 per cent of the variance. Further analysis of these data consisted of eliminating items with eigenvalues less than 1.00. A subsequent PCA, using oblimin rotation, identified a five-factor model. Once again the factor structure indicated a main factor which accounted for 25.4 per cent of the variance. The four subsequent factors accounted for 9.2 per cent, 7.2 per cent, 6.9 per cent and 5.1 per cent respectively. Eigenvalues, percentage and cumulative percentage values are summarized in Table I.

Factor	Eigen value	Percentage of total variance	Cumulative
1	4.6	25.4	25.4
2	1.7	9.2	34.7
3	1.3	7.2	41.9
4	1.2	6.9	48.8
5	1.1	5.9	54.6

Table I.
Principal components analysis using oblimin rotation

The five-factor model explained 54.6 per cent of the variance, indicating that other factors should be considered for further research. Controlling for sampling issues such as size, type and developmental stage of organizations should increase the amount of variance accounted for.

Analysis of the rotated factor matrix indicated the following factor structure:

- *Perceived organizational capability for change.* Factor 1 is composed of items which stress adaptability, receptivity, ambition, independence and boundary management. This factor may be thought of as a measure of an individual's perception of the organization's ability and attitude to change. This factor, accounting for a large proportion of the variance, may be critical in developing a resilient culture.

- *Organizational attachment.* Factor 2 is composed of items concerning confidence, trust and belief in the organization. This may be thought to reflect the quality of the relationship between the individual and the organization.
- *The relationship matrix.* Factor 3 comprises items concerning social relationships and networks in the organization.
- *Team cohesion.* Factor 4 comprises team process items such as individual identity within teams, whole team identity, team communication and team functioning.
- *Reality sense.* Factor 5 is composed of items to do with information exchange and understanding, external perception of the organization, and use of experiences.

To date, as the following client example shows, it is apparent that the audit can discriminate between organizations in terms of their overall resilience profile. It can also discriminate between different sections within the same organization. Data are analysed across a number of variables, which typically include age, gender, length of service, department and seniority. In this way pockets of low and high resilience can be identified. Subsequent interventions can therefore be highly focused. The identification of strengths and weaknesses within the resilience framework is proving both useful and convenient for diagnostic purposes. Organizations report intuitive understanding of the dimensions used and their implications.

Client example
Software company
As can be seen from the profile in Figure 1, using the three levels of functioning – dysfunctional, mid-range and resilient – the average scores for the
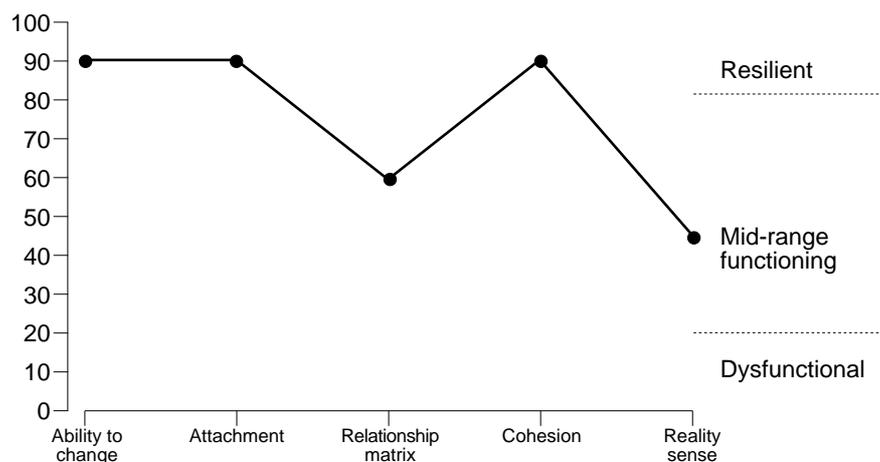

Figure 1.
Summary of resilience – software company

management team of this company indicate that they are generally resilient. Scores for three of the five dimensions fall above the threshold for resilient functioning. These three dimensions, "perceived organizational capability for change", "organizational attachment" and "team cohesion", fall on the 90th centile. This indicates the team has considerable attachment to the organization, internal cohesion and a strong belief in its ability to change. However, two of the dimensions, "relationship matrix" and "reality sense", had mid-range scores, suggesting that these may be areas of vulnerability for the team.

Discussion and conclusions

The role of the organization in entering into a psychological contract with its employers must be considered in terms of employment objectives. It has been suggested[13] that organizational strategies are linked with employment contracts and that organizations will develop unique types of contract that typify organizational/employee relationships within them and thus constitute an element of the organizational culture.

One function of the psychological contract is to "mop up" or to provide a default position, i.e. it provides a reduction in uncertainty at the edges of a formal contract. Reduction in uncertainty implies an increase in predictability and control. Thus the psychological contract may be viewed as a cognitive mechanism or process by which balance or order is preserved within the organizational setting. Each party acts on the basis of what it believes the other's position to be – it may of course be mistaken.

During periods of change, the risk of violating the psychological contract increases and the consequences of such violations are damaging to the effectiveness of the organization. The results presented above indicate the viability of the resilience audit as a measure able to discriminate between organizations, along the dimensions of resilience. Further, the audit indicates measurable differences in the relational and transactional dimensions of organizations that constitute the psychological contract. It may be argued that the factor-analytic results presented here offer support for the bi-dimensional nature of the psychological contract. It is suggested that Factor 2, organizational attachment, is consistent with the relational dimension of the contract while Factor 5, reality sense, is consistent with the transactional dimension. These results are consistent with work in other areas of applied psychology[12] which also indicated that the concept of resilience may be explained by a two-factor model. It will be noted that Olsen's two factors are not identical to those reported here, suggesting that the operationalization of the concept may to some extent be contextually or organizationally specific. This is in keeping with previous findings suggesting that situational changes modify the dimensions of resilience[14]. It appears to be the case that resilient functioning in a family setting is not identical to that within an organization, although, as the following analysis indicates, the key features of the concept are transferable and relevant.

This paper suggests that resilience is the route to a healthy psychological contract. The resilient organization will protect the integrity of the contract in the following ways:

Perceived organizational capability for change
In order to implement such a culture, the organization itself must have a positive and realistic attitude to change. It must be perceived openly to embrace a dynamism within which an employee can accept responsibility for personal and career development and prepare appropriate strategies. The organizational input to this aspect of the contract is to provide positive support for these developments and strategies. Positive attitudes to the philosophy of lifelong and organizational learning, for example, will reduce anxiety associated with stress. As well as making learning and development resources available to employees, management must actively encourage their use. This factor is closely aligned to the "attitude to change" factor identified in earlier research. However, the emphasis is here on an individual's perceptions of the organization's capability to change effectively, not on an individual's own personal attitude to change. The distinction is thus made between a personality variable and one of organizational culture. The implication here is that how organizations approach and handle a change programme will make a critical contribution to its succesful implementation.

Organizational attachment
Essential to a healthy contract is the process of making the implicit explicit, thereby bringing about a full understanding of reciprocal rights and responsibilities – and increasing trust and confidence in the organization. The inclusion of information items in this factor suggests that this will only be possible in an organization which encourages and models open communication from the highest levels in the organization to the lowest. Furthermore, the uncertainty that must remain in most contracts can be better managed if there is objective feedback to provide a richer understanding of the reality. Management must support continuing dialogue about the company's direction and strategy. This is essential in order that employees may identify their own career development strategy while maintaining a high quality relationship with the organization. This factor aligns closely with the "communications" factor presented in earlier research.

Relationships matrix
Any breach of the psychological contract will be seen as a breach of trust. Trust is fundamental to an effective contract. Secure relationships foster the trust which is essential for effective performance in times of uncertainty. For example, should an individual's departure from the organization become necessary, either voluntarily or involuntarily, the company must support the employee in managing this transition. "No-fault" exits or "exits with dignity" must be managed, with the employee perhaps assured that his or her return will

be welcomed should that become appropriate in the future for both the individual or the organization. Further, the organization should develop a culture that values and nurtures its internal relationships and networks. This factor would appear to be almost identical to that found in the family research.

Team cohesion
As organizations change and flex their structures, it will be important to retain clarity of purpose and for all individuals to understand the part that they play. Individual employees should be supported in identifying, acknowledging and accepting their unique role within the organizational structure, in particular their role within their own team or group. Contributions to the team should be assessed and valued individually, with feedback. If the integrity of an employee's contribution changes as a result of organizational change, or of a change in the individual's abilities or needs, the company and the employee should jointly identify the necessary development programme to be undertaken. This factor is closely akin to the "differentiation" factor outlined in earlier research, focusing on role identification.

Reality sense
An unbiased perception of the outside world will help employees understand and accept that the nature of the contract must change. They will identify the skills that are valued in the marketplace and objectively compare these with their own skill set. Information about market changes and job opportunities both inside and outside the company should be made available to all employees. Opportunities for career growth and personal development should be made available, and linked to market awareness. This will encompass a need to develop sensitivity in perceptions about individual and organizational positions in the marketplace. The resilient organization is not insular. This factor aligns with the "reality sense" factor found in earlier research.

Conclusion
This five-factor structure does not include the "power structure" factor suggested by other researchers. However, it appears that the key features of resilience are transferable to organizational analysis. The lack of a "power structure" dimension may be accounted for by the fact that few families have a formal "structure", while most organizations do have one, often represented in the organizational chart. Therefore, within organizations, the need to explore the existence of a structure is less apparent. Obviously structural considerations are incorporated into the organizational resilience framework through the dimensions of relationships and team cohesion.

The resilience audit can therefore be used to indicate vulnerable dimensions in organizational functioning with respect to the psychological contract and thus to facilitate the "repositioning" of individuals within organizations. The transition from career dependence to career resilience and to resilient, not paternal, organizations is not only desirable but essential for organizational

survival. The development of a resilient workforce may be the ultimate source of an organization's power in the marketplace.

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Further reading

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