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# TESTING THE VALIDITY AND RELIABILITY OF THE ORGANISATIONAL DESCRIPTION QUESTIONNAIRE (ODQ)

Ken W. Parry & Sarah B. Proctor-Thomson

## ABSTRACT

The current study investigates the validity and reliability of the *Organisational Description Questionnaire* (ODQ) (Bass & Avolio 1993; 1994). The ODQ scale operationalises two organisational constructs, 'Transformational leadership culture' and 'Transactional leadership culture'. The current findings suggest that the transformational scale is consistently reliable and theoretical comprehensive. On the other hand, the transactional scale consists of a one-factor solution which subsumes three lower-order factors. Implications for future development are discussed.

## KEYWORDS

Leadership, transformational, transactional, organisation, climate, culture, measurement, validity.

## INTRODUCTION

As with any group or collection of people, organisations involve, and are influenced by, specific cultural norms. As such, it is advantageous to work to gain understanding and insight into cultural impacts and influences on organisational life. For this reason, the importance of cultural meaning within organisational theory and practice (see Frost & Martin 1996) has continued to develop since its first introduction in the late 1970s (Pettigrew 1979).

Considerable empirical work has been done since that time in developing the constructs of organisational culture, and in developing instruments that measure it. Smircich (1983) features prominently in this operationalisation work. A recent high quality example is O'Reilly et al.'s *Organizational Culture Profile* (O'Reilly, Chatman & Caldwell 1991). However, the present research has examined the constructs of transformational and transactional *leadership* culture, rather than organisational culture more broadly. Transformational leadership culture is one example from within a broader taxonomy of organisational culture profiles, and no more. Notwithstanding a broad range of definitions of organisational culture considered since 1980, there appears to be a convergence of theory that describes some fundamental aspects of this construct. Organizational leadership culture can be described in terms of levels that span across implicit and explicit attributes of organisations. A prominent distinction of levels has been made between visible and invisible components of culture generally (Kotter & Heskett 1992; Schein 1984). The 'visible' level may involve group behaviour norms, such as patterns of behaviour that can be witnessed and explicitly encouraged (Kotter & Heskett 1992). Schein (1984) described two aspects within the visible level, that of 'explicitly held values and beliefs' and 'visible and physical artefacts', such as code of dress and office layout. The 'invisible' level includes less tangible

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qualities such as shared values (Kotter & Heskett, 1992), and implicit fundamental assumptions based on learned responses about how one should think, feel, and act (Schein 1984). Aspects of this level of culture tend to persist over time and are usually more difficult to change than 'visible' aspects, because members of the organisation are often unaware of their existence. Both levels of culture are relevant to conceptions of leadership culture, and are thought to arise, to a varying degree, from experience of problem solving and knowledge of working solutions (Bass 1998; Kotter & Heskett 1992).

Unfortunately, this conceptualisation throws up some important issues in concern with the measurement of organisational leadership culture. Given that culture may work on two levels of visibility (or lack thereof) the challenge becomes one of identifying the visible from the invisible, the flexible from the inflexible, and distinguishing those that are measurable from those that are not. For example, it is unlikely that observational work alone will provide a comprehensive analysis of all aspects of culture, while it is also improbable that a pencil and paper questionnaire will tap into those aspects of culture that are subconscious for the respondent (Schein 1984, 1985; Rousseau 1990).

However, the reasons for pursuing the search for an accurate and practical measurement tool of organisational leadership culture extend beyond theoretical endeavour. The implications of developing such a tool are likely to impact on the bottom-line, if it is used to enhance and cultivate effective organisational leadership cultures.

For example, increased hours of productive work per day have been attributed to strong organisational cultures when compared to weak cultures (Deal & Kennedy 1988). In addition, Kotter and Heskett (1992) suggest that strong (leadership) culture may aid goal alignment, increase employee motivation, and provide structure. In an analysis of over 200 firms, these authors found a modest relationship between the strength of culture and long-term economic performance, and this relationship was further enhanced if these strong cultures emphasised the importance of their customers, employees and stakeholders.

The significance of organisational culture content was further supported by Sheridan (1992) who found that new graduate recruits who were hired into companies with cultures that emphasised interpersonal relationship values stayed 14 months longer than their counterparts that stressed work task values.

Thus, both cultural strength and the quality and content of culture appear to be influential on bottom-line success and organisational effectiveness. Having said that, there is great variability in findings about the relationship between organisational culture and the organisational 'bottom-line'. Be that as it may, an accurate perception of organisational culture may allow strategic planning and development of effective cultures and reinforcement of existing successful cultural practices. Ultimately such organisational development may result in higher productivity, lower turnover, and greater quality of work. More specifically, the present research is interested in organisational leadership culture and its impact on outcomes.

## **EFFECTIVE ORGANISATIONAL LEADERSHIP CULTURE TYPES**

Although a strong leadership culture may simplify, motivate, and provide direction when it is appropriate to the demands placed on the organisation (Kono & Clegg 1998), such a culture

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may also prove detrimental to that same organisation when the demands change (Bass 1998). Therefore, the match between an organisational culture and the environment in which it is situated is very important to its success (Saffold 1988).

The ability of an organisation to adapt is considered to be of primary importance in maintaining an organisation's cultural fit with a changing environment (Bass 1998; Kotter & Heskett 1992). Kotter & Heskett state "only cultures that can help organisations anticipate and adapt to environmental change will be associated with superior performance over long periods of time" (1992: 44). An adaptive organisational leadership culture is one that emphasises commitment to its key constituencies, and greatly values innovative ideas and processes that create change (Kotter & Heskett 1992). This type of culture is in contrast to cultures that reinforce stability, security and low-risk values that consequently limit flexibility and adaptability of an organisation. Previous measures have identified this distinction using terms such as security vs. satisfaction and short-term vs. long-term orientation (Cooke & Lafferty 1989; Kilman & Saxton 1983; see also Xenikou & Furnham 1996). Bass and Avolio (1993) also stress this distinction between flexible and inflexible cultural types in outlining their classification of transformational and transactional leadership culture.

#### *Transformational Leadership Culture*

Transformational leadership culture encourages and supports innovation and open discussion of issues and ideas so that challenges become opportunities, rather than threats (Bass 1998). Leaders within such a culture are role models, mentors and coaches. They consistently espouse organisational goals and purpose that all employees take up as important components of the organisation's vision. Bass and Avolio state that within a transformational culture "there is generally a sense of purpose and a feeling of family" (1993: 3). Employees of transformational cultures go beyond their self-interests and strive towards organisational goals; this is in contrast to those employees in transactional cultures. However, successful transformational cultures usually have a base of transactional elements upon which the transformational qualities build (Bass 1998). Neither purely transactional nor transformational cultures are likely to be successful. An allied construct is the transformational leadership of individuals, measured by the Multifactor Leadership Questionnaire (MLQ — Bass & Avolio 1997). Conceptually at least, there is a positive relationship between the leadership of an individual and the leadership culture of the organisation. However, it is difficult to opine whether the leadership of individuals contributes to the culture of the organisation, or whether the culture of the organisation has an impact on the leadership displayed by individuals. Probably, in reality, both explanations are valid. Empirically, this relationship has not been tested.

#### *Transactional Leadership Culture*

"A 'pure' transactional leadership culture focuses on everything in terms of explicit and implicit contractual relationships" (Bass & Avolio 1993: 3). In such a culture there is a set price on everything, and every action has an ascribed value. Bass and Avolio (1993) state that in this sort of culture, individualism is very strong and therefore concern for self-interest, rather than organisational aims, predominate. Further, because employees working in this type of culture do not identify with the mission or vision of their organisation, commitment is often short-term, existing to the extent of rewards provided by the organisation (Bass 1998). Transactional culture tends to support and maintain the status quo and as such provides less

flexibility than that of transformational culture. An allied construct is the transactional leadership of individuals, measured by the Multifactor Leadership Questionnaire (MLQ — Bass & Avolio 1997). With regard to the relationship between the leadership of individuals and the culture of the organisation, the same arguments raised in the previous section would apply.

### *Organisational Description Questionnaire.*

Bass and Avolio's organisational leadership culture theory was developed in parallel to existing transformational leadership theory (Bass & Avolio 1993). The *Organisational Description Questionnaire* (ODQ) is the operationalisation of these theoretical constructs (Bass & Avolio 1994). The ODQ is a scale of 28 statements of organisational conduct designed to measure transformational and transactional leadership culture. Each of the statements describes general organisational behaviour and beliefs. For example, items such as 'decisions are often based on precedents', and 'one or two mistakes can harm your career' represent transactional culture, whereas 'we trust each other to do what's right' and 'new ideas are greeted with enthusiasm' are transformational culture items. Each item requires respondents to indicate whether they believe the statement is true or false of their organisation, or alternatively, a third category ('?') is available if they are 'undecided or cannot say' (Bass & Avolio 1994). The ODQ splits into two scales of 14 items each that have been designed to provide a single-factor solution representing each of the cultural constructs. These scales are scored on a -14 to +14 range, where a 'true' response is scored with +1, while a 'false' is assigned -1, an 'undecided' response is scored 0. Therefore, a large negative score, say -8 to -14, indicates a very minimal presence of that particular culture type within an organisation.

These measurements can be integrated into an overall organisational culture profile. For instance, an organisation may be highly transactional, but score poorly on the transformational measures. Such a culture is thought to be 'predominantly bureaucratic'. In contrast, a culture may score highly on both transactional and transformational measures in which case the organisation has a 'high-contrast' culture. Bass and Avolio (1994) have identified nine types of such organisational cultures each with varying levels of transformational and transactional qualities.

Until now, usage of the ODQ has primarily been based in organisational development interventions. Therefore, a necessary step towards developing a cultural scale that is both theoretically sound and practically applicable to the organisational context is scale validation. The current investigation is a preliminary test of validity and reliability of the ODQ.

## **METHODS**

### **Measures**

In addition to the ODQ, measures of effectiveness and role conflict were included in order to investigate convergent validity.

#### *Measures of effectiveness*

Two items were used to measure perceived organisational effectiveness. The first of these asked respondents specifically about the effectiveness of their organisation. The second item

asked respondents to indicate the ability of their organisation to achieve bottom-line outcomes. The responses to these items were averaged to achieve a single perceived organisational effectiveness rating. As above, prior work has established clear relationships between culture and organisational outcomes. Moreover, transformational culture is conceptually related to organisational effectiveness, while transactional culture is assumed to be less effective. As such, the effectiveness measure was included to allow testing of construct and predictive validity. The Cronbach alpha for the two organisational effectiveness items was .63, not high, but adequate for a two-item scale. Moreover, the correlation between the two items was .46 and the item-to-total correlations for the two items were .85 and .87. This two-item organisational effectiveness scale correlated .31 and .49 with two other measures of leadership effectiveness, indicating convergent validity for the effectiveness 'scale'.

### *Role Conflict*

Role conflict theory is based on an understanding of formal organisational structure in which there is a clear hierarchy of authority (Rizzo, House & Lirtzman 1970). In such organisations, if an employee is required to take contrasting commands from multiple authorities, the 'chain of command principle' is violated and they are likely to experience role conflict.

Role conflict has been extensively researched and theorised since the 1970s and has a comprehensive literature of which it will be impossible to adequately review here. However, briefly role conflict has been found to be negatively related to job satisfaction (Jackson & Schuler 1985), performance (Brown & Peterson 1993), commitment, involvement, supervision and participation in decision-making (Fisher & Gitelson 1983). Possible *benefits* of role-conflict in specific organisational contexts have also been described (Jones 1993). As such, role conflict is an important organisational dimension that may impact on individual and organisational effectiveness.

A measure of role conflict (Rizzo et al. 1970) is included in this investigation because not only is it related to effectiveness measures, but also taps into aspects of structure within organisations and thus may be related to culture type. For example, in an organisation that is heavily structured and has formalised procedures guiding practice, that is a transactional-type organisation, role conflict may be more prevalent than that present in a more transformational organisation in which flexibility, innovation and shared goals are more evident.

Rizzo et al.'s role conflict scale has been criticised in the past for lack of discriminant validity with role ambiguity (McGee, Ferguson & Seers 1989; Tracey & Johnson 1981). However, more recently, investigations have found support for the original measure of role conflict as distinct from role ambiguity (Shepherd & Fine 1994; Smith, Tisak, Schmieder 1993). This measure includes eight items and is based on a five-point Likert scale.

### *Subjects and Procedure*

The scales were distributed to 6025 managers nationally. This sample incorporated both public and private sector organisations as it was generated from member lists of both the National Institute of Management and the National Institute of Public Administration. The ODQ, effectiveness items and role conflict scale made up a portion of a larger survey addressing a broad range of leadership issues concerning future leaders nationally. The

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complete survey had a total of 144 items covering additional topics such as leader integrity, leadership style, and social processes of leadership. These other topics were measured at the individual level of analysis. Consequently, they were not measuring the same construct as leadership culture. It must be emphasised that this research is testing the ODQ, not testing for the characteristics of a sample population. Hence, even though organisational culture could and probably should be tested at the organisational level of analysis, this was not the aim of the present research. Hence, a generalised population sample has been used. It is recognised that for future research of this nature, organisational level case study method should be employed. These surveys were accompanied by a covering letter from the relevant institutes encouraging members to participate. Surveys were completed and returned in reply-paid envelopes.

1354 usable surveys were returned for a response rate of 22.5 percent. This is not an unusual response rate based on historical trends for this particular data set. This is a reasonable response rate historically for this population. Also, as Waldman, Ramirez, House & Puranam (2001) have claimed, response rate is not crucial for broad-brush population research such as this. The large number of potential respondents who did not have subordinates also confounded the response rate. Based on feedback from respondents and anecdotal evidence, it was assessed that this could account for up to 20 percent of the total sample. Due to this relatively low response rate cross-tabulations of early (within the first 2 weeks); medium (2-3 weeks) and late (after 3 weeks) responses against all demographic characteristics were performed. Identification of systematic response trends would indicate a non-response bias. This type of analysis is based on the premise that very late respondents in the research sample are the most akin to those that do not respond at all (Moser & Kalton 1971).

No significant differences were found between early and late respondents' demographics, including gender, age, ethnicity, and industry type distributions. However, a significant difference was found in management level between early and late respondents, so that the higher the organisational level of the respondent, the quicker the reply. Therefore, it appears that non-respondents may be more likely to be middle or senior managers than CEOs.

To ascertain if the variation of management level in the late sample impacted on responses, cross-tabulation of early and late responses for each scale used in the survey were also run. Responses on all scales used did not differ across time of response. These findings, together with the lack of significant differences in demographic distribution between early and late respondents, suggest a low probability of response bias (Moser & Kalton 1971).

Of those responding 77.6 percent were male and 22.4 percent were female. The majority of the sample identified themselves as European (95 percent), with the next largest group identifying themselves as Maori or Pacific Islander (2.64 percent). The mean age range was 40-55 years.

## **RESULTS**

### *Reliability*

Cronbach's alpha internal consistency indicator was used to estimate the reliability of the 14-item scales of transformational and transactional leadership culture. Reliabilities were adequate (i.e. > 0.70, Nunnally 1978) at 0.88 for the transformational culture scale and 0.74

for the transactional scale. However, the internal consistency of the transactional scale may be raised to 0.79 if item 19 (“agreements are specified and then fulfilled”) is withdrawn from the scale. Item-to-total correlation analysis also indicated that this item did not relate to the transactional culture construct as expected. Results are presented in Tables 1, 2 and 3.

|                              | <i>Transformational Culture</i> | <i>Transactional Culture</i> |
|------------------------------|---------------------------------|------------------------------|
| Transformational Culture     | .88*                            | -                            |
| Transactional Culture        | -.61**                          | .74*                         |
| Means (min -14; max +14)     | 8.76                            | -1.07                        |
| Std. Deviations              | 6.5                             | 6.16                         |
| * Cronbach alpha coefficient | p<.001                          |                              |
| ** Spearman's r              | p<.001                          |                              |

| <b>Table 2.</b><br>Transformational culture scale,<br>item-to-total correlations. |     | <b>Table 3.</b><br>Transactional culture scale,<br>item-to-total correlations. |             |
|---|-----|--|-------------|
| ITEM  |     | ITEM   |             |
| 2   | .54 | 1  | .23         |
| 4   | .51 | 3  | .27         |
| 6   | .56 | 5  | .45         |
| 8   | .46 | 7  | .20         |
| 10  | .54 | 9  | .44         |
| 12  | .57 | 11   | .30         |
| 14  | .64 | 13   | .37         |
| 16  | .67 | 15   | .55         |
| 18  | .46 | 17   | .55         |
| 20  | .34 | 19   | <b>-.38</b> |
| 22  | .67 | 21   | .57         |
| 24  | .54 | 23   | .47         |
| 26  | .63 | 25   | .45         |
| 28  | .66 | 27   | .46         |

All correlations are significant p<.001

### *Factor Structure*

Factor analysis allows identification a small number of factors that explain most of the variance observed in a much larger number of manifest variables. In the current investigation a factor analysis was conducted using Principle Component Analysis with Promax rotation. Promax rotation assumes starting variables are correlated and thus is relevant to the current design which suggests that negative correlations between transactional and transformational items are likely. The transformational and transactional leadership culture scales do actually correlate negatively with each other ( $r = -.61$ ,  $p < .001$ ), so the use of an oblique rotation is justified. A varimax rotation was conducted as well as a promax rotation. Both provided exactly the same explanation of variance over the four factors, 45.3 percent. However, the promax rotation provided a clearer factor structure, giving further support to the belief that this was the most appropriate rotation to use.



The retention criteria for factors was set at eigenvalue greater than 1. The first four eigenvalues were 8.51, 1.84, 1.26, and 1.07 respectively, and therefore a four-factor solution was proposed. Item loadings on each of these factors are presented in Table 4. Only items that demonstrated a factor loading greater than 0.40 (suggested criteria, Hinkin, 1995), and that did not load heavily on other factors are presented. Four of the 28 items did not load clearly on any of the factors. It is refreshing to see that 24 of the 28 items loaded clearly on to factors. Such a finding indicates a robust instrument.

In general, the transformational culture scale did demonstrate a one-factor solution with all the remaining transformational factors loading onto the first factor (loadings from 0.78 to 0.49). This factor explained 30.4 percent of the variance. In addition to the twelve transformational items, two transactional items loaded negatively on this factor.

**TABLE 4. FACTOR LOADINGS OF THE ODQ**

| ITEM                            | FACTOR                                      |                    |                |                |
|---------------------------------|---|--------------------|----------------|----------------|
|                                 | 1<br>Transformational<br>leadership culture | 2<br>Transactional | 3<br>T'actical | 4<br>T'actical |
| eigenvalues                     | 8.51  | 1.84               | 1.26           | 1.07           |
| % variance explained            | 30.4  | 6.6                | 4.5            | 3.8            |
| % cumulative variance explained | 30.4  | 37.0               | 41.5           | 45.3           |
| 26 Transformational             | .781  |                    |                |                |
| 18 Transformational             | .772  |                    |                |                |
| 4 Transformational              | .757  |                    |                |                |
| 16 Transformational             | .719  |                    |                |                |
| 28 Transformational             | .713  |                    |                |                |
| 12 Transformational             | .697  |                    |                |                |
| 22 Transformational             | .640  |                    |                |                |
| 14 Transformational             | .627  |                    |                |                |
| 19 Transactional                | .601  |                    |                |                |
| 2 Transformational              | .590  |                    |                |                |
| 10 Transformational             | .578  |                    |                |                |
| 24 Transformational             | .570  |                    |                |                |
| 6 Transformational              | .490  |                    |                |                |
| 9 Transactional                 | -.467                                       |                    |                |                |
| 27 Transactional                | -.427                                       |                    |                |                |
| 25 Transactional                |   | .757               |                |                |
| 5 Transactional                 |   | .676               |                |                |
| 13 Transactional                |   | .655               |                |                |
| 3 Transactional                 |   | .526               |                |                |
| 17 Transactional                |   | .490               |                |                |
| 7 Transactional                 |   |                    | .693           |                |
| 11 Transactional                |   |                    | .563           |                |
| 1 Transactional                 |   |                    |                | .875           |
| 23 Transactional                |   |                    |                | .734           |

In contrast, a one-factor solution for the transactional scale was not immediately supported. Transactional scale items were found to load onto each of the four factors. However, two distinct factors were found that represented particular aspects of transactional culture. For

example the second factor was made up of five transactional items, each describing some form of boundary or limitation of action through formal structures including rules, procedures, and standards (examples are 'decisions based on precedents' and 'rules limit discretionary behaviour').

In addition, the fourth factor onto which only two transactional items loaded, clearly describes competition for resources (for example 'we bargain for resources'). Both factors 2 and 4 are solely made up of transactional qualities, and both describe limitations due to organisational factors. However, conceptually they are distinct in terms of the location from which these limitations originate. Factor 2 originates from organisational processes, while Factor 4 represents norms of interaction between people.

The third factor also included two transactional items, indicating that people get paid only what they earn and that it is hard to find key people when they are needed. At this point conceptual reasoning for this cluster of two items is strictly guesswork, however, it is tentatively posited that there is a qualitative distinction between cultural aspects that have individual impact and those that are collectively influential.

However, when two factors were forced into the exploratory factor analysis, the items loaded exactly as per Bass and Avolio's initial classification, with one exception. This finding suggests that the transformational/transactional dichotomy, as represented by the ODQ scale, is a valid one. It also suggests that the transactional scale consists of one overarching higher-order factor, into which the three lower-order factors are subsumed. Accordingly, further analysis will be conducted with the full, higher-order transactional scale, as published in the ODQ.

### *Correlational Analysis*

The ODQ measure of transformational leadership culture correlated positively ( $r=.44$ ,  $p<.001$ ) with the measure of the individual display of the social processes of leadership (SPL, Proctor & Parry 1999) (see Table 5). The social processes were nine items (Cronbach alpha .91) that operationalised the qualitatively-derived social processes of leadership which emerged from the grounded theory research of Irurita (1996) and Parry (1999). The ODQ measure of transactional leadership culture correlated negatively ( $r = -.35$ ,  $p<.001$ ) with the measure of the individual display of the social processes of leadership. These correlations indicate that the more individuals see the display the social processes of leadership coming from their colleagues, the more they perceive that the leadership culture of their organisation is transformational and the less they perceive that the leadership culture is transactional. Both correlations help provide convergent validity for the ODQ.

The ODQ scale correlated in expected directions with measures of perceived organisational effectiveness. A positive relationship between transformational culture and organisational effectiveness was demonstrated,  $r = 0.39$ ,  $p<0.001$ . Conversely, transactional culture correlated negatively with effectiveness measures,  $-0.34$ ,  $p<0.001$ .

Perceptions of role conflict by respondent also correlated in expected directions with culture type. Role conflict correlated negatively and significantly with transformational culture, while demonstrating significant positive correlations with transactional culture. These patterns of

results provide convergent validity and theoretical support for the constructs of transformational and transactional culture as described by Bass and Avolio (1993; 1994).

|                                 | <i>Organisational effectiveness</i> | <i>Role Conflict</i> | <i>Individual social processes of leadership</i> |
|---------------------------------|-------------------------------------|----------------------|--|
| <b>Transformational Culture</b> | <b>.39</b>                          | <b>-.32</b>          | <b>.44</b>                                       |
| <b>Transactional Culture</b>    | <b>-.34</b>                         | <b>.35</b>           | <b>-.35</b>                                      |

Note: All correlations are significant,  $p < 0.001$

## DISCUSSION AND FUTURE RESEARCH DIRECTIONS

The ODQ was developed in parallel to previous transformational-transactional leadership typology (Bass 1985) in order to provide a framework for the consideration of organisational culture (Bass & Avolio 1993). As discussed, it is probable that such a tool would impact on strategic design and organisational effectiveness. Moreover, transformational leadership theory at the time of the ODQ development was in full flight and was gaining in popularity both within research and business practice. The ODQ had the potential to do for cultural theory what transformational leadership did for leadership theory.

However, although established in the early 1990s, the ODQ has not been further conceptualised or developed and, therefore, remains in its original form, virtually unchanged. The current results suggest that although the ODQ may *potentially* provide a useful measuring tool of organisational culture, further empirical and theoretical work is needed before this potential is fully realised.

### *Transformational Leadership Culture*

Transformational leadership culture emphasises purpose, vision, and innovation and, as such, is adaptive to change and open to new opportunities (Bass 1998). Given the acceleration of change commencing within our societies, qualities such as these, which reinforce adaptability and flexibility, are fast becoming necessary for survival. The current results suggest that the ODQ may provide an accurate and valid measurement of transformational leadership culture. Reliability was found to be high and twelve of the fourteen transformational items loaded together on a single factor, a factor that correlated significantly and positively to perceived organisational effectiveness, and negatively with role conflict. Therefore, reliability and validity of this scale were supported.

### *Transactional Leadership Culture*

On the other hand, although reliability and convergent validity analysis may give reasonable support for the transactional scale in its present form, it would be a mistake to blindly accept this scale as a measurement of a single-factor construct.

The factor-analysis results suggest transactional culture is multi-dimensional. There are at least two distinct factors that describe negative impacts on organisational effectiveness, such as limitations of effective practice through formal rules and procedures, and competition for resources. However, it may be that there are additional factors that are currently embedded within the construct of transactional culture. For instance, a factor representing positive transactional practice may be relevant and meaningful.

Bass and Avolio state “A ‘pure’ transactional culture focuses on everything in terms of explicit and implicit contractual relationships” (1993: 116), that is to say the *transaction* is the central factor of this type of culture. However, there are few transactional culture items that represent transactions, and one of these, item 19, loads positively and strongly on to the transformational culture scale. Item 19 states ‘agreements are specified and then fulfilled’ and is one of the few transactional items that has a positive or constructive tone to it. Rather than discard this item because of lack of fit, it may be more useful to conceptually rethink and refit transactional culture itself so that it represents positive factors in addition to those negative qualities.

Although *transaction* is theoretically the principal component of transactional culture, it is scarcely represented in the ODQ. Future research is needed to develop the positive and negative conceptualisation of transactional culture and to operationalise this in useful terms, both theoretically and practically.

Therefore, it is contended here that a ‘pure’ transactional culture in the terms that Avolio & Bass describe does not exist. Rather, transactional culture as currently described may be a multidimensional, complex and dynamic construct of culture.

## FINAL NOTE

It is suggested that an optimal culture will have a foundation of moderate levels of transactional culture, but have high levels of transformational culture (Bass 1998; Bass & Avolio 1993). However, the ODQ does not reflect the positive and necessary transactional aspects of effective organisations. Rather, the ODQ sets up a dichotomy of transformational/transactional, effective/ ineffective, or good/ bad cultural types. This is represented in the high negative correlation between transformational and transactional culture.

It is argued that this dichotomy is false and, therefore, a possible useful research direction would be to move outside the bounds of the transformational and transactional culture split. After all, Avolio, Bass & Jung (1999) found conceptual overlap between transformational and transactional leadership. Also, individual transactional leadership is separated into a constructive transaction and a corrective transaction (Bass & Avolio 1997). In the ODQ, as it presently stands, the corrective transaction is over-represented at the expense of the constructive transaction. Culture may be described in many ways other than those forms that can be positioned within the structures set by the ODQ. Alternative scales measuring organisational culture reinforce this point by demonstrating the importance of both multi-dimensionality and breadth of the construct of culture. For example, The *Organisational Culture Inventory* (Cooke & Lafferty 1989) includes twelve sub-scales of cultural dimensions, while the *Organisational Beliefs Questionnaire* (Sashkin 1984) measures ten subscales. The *Organizational Culture Profile* (O’Reilly, Chatman & Caldwell, 1991) has eight subscales.

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Using factor analysis across these and other scales, Xenikou and Furnham (1996) demonstrated a 5-factor solution including 'openness to change in a cooperative culture', 'task-oriented organisational growth', 'the human factor in a bureaucratic culture', 'negativism and resistance to new ideas', and 'positive social relations in the work place'. It would be possible to position at least some of these factors within either of the ODQ constructs, however, it is unlikely that all could be so-positioned without losing a large amount of information. Practicality within organisational application may have determined the ODQ's overly simplistic structure, however, without comprehensive analysis of organisational culture, effective practitioner use of the tool will be limited.

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