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NEED FOR DOMINANCE SCALE OF THE
MANIFEST NEEDS QUESTIONNAIRE:

ITS RELIABILITY AND VALIDITY

by

John W. Medcof

Personnel & Industrial Relations Area

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McMaster University

Working Paper No. 295

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Running head: MNQDOM reliability/validity

MNQDOM1

The Need for Dominance Scale of the Manifest Needs Questionnaire:
Its Reliability and Validity

Abstract

The need for dominance scale of the Manifest Needs Questionnaire is shown to be appropriate for research use through a demonstration of its acceptable psychometric properties and convergent and construct validities. Further research should strive to improve the psychometric properties of the scale and to demonstrate its predictive validity.

In recent years there has been a resurgence of research and theory on the need for dominance/power and its relationship to effective management and occupational suitability (Chusmir, 1985; House & Singh, 1987; McClelland, 1985; Medcof, 1985; Stahl, 1986). The need for power or dominance (the terms will be used interchangeably here) is, in its narrowest sense, the motive to influence the thoughts and activities of a number of other people (McClelland, 1985; Stahl, 1986). More broadly conceived, the need for dominance also includes a desire to control the environment generally, a tendency to persistence and social initiative and a desire for autonomy (Gough, 1975). Several studies have shown correlations between managerial ability and the need for dominance (for reviews see House & Singh, 1987; McClelland, 1985; and Stahl, 1986).

This promising line of research has developed despite less than ideal instrumentation. Much of the research has been done using the Thematic Apperception Test (TAT) which is cumbersome to use and has poor psychometric properties (Entwistle, 1982). Avoiding heavy dependence on the TAT would greatly enhance the credibility of work in this area. Recently the Job Choice Exercise (JCE) has been developed by Stahl and his colleagues (Stahl, 1986) to measure the needs for power, achievement and affiliation. With its superior psychometric properties and demonstrated validity it is a great improvement over the TAT and is also less cumbersome to use. However, it does require that all three needs be measured if a score for any one of them is to be got. Since it takes about twenty minutes to complete researchers not interested in the needs for achievement and affiliation, and who need a very short measure, may

find the instrument inappropriate. A third instrument is the MNQ. It is very short (20 questions) and purports to measure the needs for dominance, achievement, affiliation and autonomy. But recent reviews have raised questions about the internal reliabilities of the scales (Dreher & Mai-Dalton, 1983; Mai-Dalton, 1986). For a less pessimistic view on this issue, however, readers should consult Chusmir (1987).

Unlike the other MNQ scales, about which there are serious questions, the dominance scale (MNQDOM) has acceptable levels of both internal reliability and test-retest reliability. Reviews of the alphas of MNQ scales have been done by Chusmir (1987), Dreher & Mai-Dalton (1983) and by Mai-Dalton (1986). Between them they have reported values from 16 different studies. The alphas for MNQDOM ranged from .46 to .91 with a median of .725. This meets Nunnally's (1978) requirement that instruments used for research have an alpha of .70. One study has reported the test-retest reliability of MNQDOM. Steers and Braunstein (1976) found an acceptable .86.

The convergent validity of MNQDOM has been evaluated and the data, shown in Table 1, support the validity of the scale. Mayes and Ganster (1983) and Steers and Braunstein (1976) both compared the MNQ to Jackson's (1984) Personality Research Form (PRF) and found correlations, .74 and .62 respectively, between MNQDOM and the dominance scale of the PRF. Mayes and Ganster (1983) also reported correlations between MNQDOM and the PRF measures of the needs for achievement, affiliation and autonomy. The correlations with achievement and autonomy were significant but neither was as large as that for dominance. Steers and Braunstein (1976) also calculated correlations between MNQDOM and the PRF scales of achievement,

affiliation and autonomy but reported only that the median of the three correlations was .24. Stahl and Harrell (1982) compared the MNQ to the JCE and found that MNQDOM correlated significantly with the need for power, but not with the needs for achievement and affiliation, as measured by the JCE. Steers and Braunstein (1976) did two studies which found MNQDOM correlated with observers' ratings of the amount of dominance behaviour displayed. In the first, four faculty members rated the behaviours of 96 MBA students with whom they were familiar. Their ratings of dominance correlated .74 with MNQDOM. The median correlation between MNQDOM and the ratings of achievement, affiliation and autonomy was .22. In the second study psychologists rated the behaviours of hospital staff. Their dominance ratings correlated .49 with MNQDOM and the median correlation of MNQDOM with the ratings of achievement, affiliation and autonomy was .14.

 Insert Table 1 about here

The construct validity of MNQDOM is supported by several areas of research. As one would expect, given the dominance construct, people high in MNQDOM tend to make good managers, display social initiative and desire self-direction. The data reported in Table 1 support the proposition that MNQDOM is positively correlated with management ability. This is an important test of the construct validity of MNQDOM since it is widely believed that dominance is necessary for good management (Chusmir, 1985; House & Singh, 1987; McClelland, 1985; Medcof, 1985; Stahl, 1986; Steers & Braunstein, 1976). In the only study which has examined correlations between

MNQDOM and ratings of management ability Steers and Braunstein (1976) asked the immediate superiors of 82 managers to rate those managers on delegation, control, persuasiveness, self-confidence and overall ability. All of these showed positive correlations with MNQDOM except delegation which correlated $-.31$. Other studies have looked at MNQDOM and hierarchical level to test the idea that dominance is necessary for good management. Overall they have been supportive with Chusmir and Hood (1986) and Kirchmeyer (1987) finding correlations of $.43$ and $.17$, respectively, between MNQDOM and hierarchical level. Steers and Braunstein (1976) found a significant r of $.19$ between MNQDOM and the holding of supervisory rank but no significant correlation with management level in general. The dominance construct suggests that MNQDOM should be positively correlated with persistence and social initiative and the data bear this out. Chusmir and Hood (1986) found that MNQDOM is positively correlated with Type A Behaviour. Dalton and Todor (1979) found that union stewards high in MNQDOM tend to file more grievances. Steers and Braunstein (1976) found a positive relation between MNQDOM and stated preference for being a leader in a group and for having a major role in directing group performance. The dominance construct suggests that MNQDOM should be positively correlated with the need for autonomy and the data support this. Steers and Braunstein (1976) found a negative correlation between MNQDOM and the desire for high externally controlled task structure and a positive correlation with desire to control one's workspace. Mayes and Ganster (1983) found a positive correlation between MNQDOM and the PRF measure of the need for autonomy.

The data suggest that those high in MNQDOM prefer a political and persuasive management style. Although this is not implied by the dominance construct, and therefore cannot be taken as support for that construct, it is an interesting finding that has emerged from the data. Dalton and Todor (1979) found that union stewards high in MNQDOM are more likely than others to settle a potential grievance through discussions with management. Kirchmeyer (1987) found a positive correlation between MNQDOM and self-reported engagement in political action and a belief in the inherency of politics. Mowday (1979) found a positive correlation between MNQDOM and self-reported use of persuasion and manipulation to influence others, a negative correlation with self-reported use of appeal to policies and rules, and no correlation with the use of rewards and the exchange of favours. However, those high in MNQDOM tend to see their own organizations as not very political, as shown by Kirchmeyer's (1987) two measures of this (Table 1).

This review of the MNQDOM literature has shown that the scale is worthy of continued use and development. The present study built upon these past studies by further showing, with data, the reliability and validity of the scale.

It was expected that the present study would bear out past studies which had shown MNQDOM to have a median alpha of .725.

Hypothesis 1. The Cronbach alpha of MNQDOM will be greater than .70.

Two tests of the convergent validity of MNQDOM were done. One was a replication of the comparison with the JCE done by Stahl and Harrell (1982) reported in Table 1.

Hypothesis 2. MNQDOM will be positively correlated with the need for power and not correlated with the needs for achievement and affiliation, as they are measured by the JCE.

The second test of convergent validity used behaviour ratings. Past studies of MNQDOM and behavioural ratings of dominance had shown the measures to be positively correlated (Steers and Braunstein, 1976). In one of these the raters were psychologists and in the other they were professors who knew the MNQ respondents. In the present study peers of the MNQDOM respondents rated the respondents' behaviours for dominance, achievement, affiliation and autonomy. Steers and Braunstein (1976) did not report specifically the correlations between MNQDOM and achievement, affiliation and autonomy so the predictions here were based upon past studies comparing MNQDOM to questionnaire measures of these motives. Mayes and Ganster (1983) and Stahl and Harrell (1982) found no relation between MNQDOM and the PRF and JCE scales for affiliation and so none was expected here between MNQDOM and behavioural ratings of affiliation. Mayes and Ganster (1983) found a positive correlation between MNQDOM and the PRF measure of autonomy and Steers and Braunstein (1976) found correlations with the need to control one's own work, so a positive correlation was expected between MNQDOM and behavioural ratings of autonomy. Mayes and Ganster (1983) found a positive correlation between MNQDOM and the PRF measure of the need for achievement. Stahl and Harrell (1982) found no significant relationship between MNQDOM and the JCE measure of the need. Since the PRF is more extensively validated than the JCE (Jackson, 1984; Stahl, 1986) the prediction here was for a positive correlation between MNQDOM and peer ratings of achievement.

Hypothesis 3. MNQDOM will be positively correlated with peer ratings of dominance, autonomy and achievement behaviours but uncorrelated with peer ratings of affiliation.

The social initiative and autonomy aspects of the dominance construct were tested with the six scales of the FIRO-B instrument (Schutz, 1966). In their most direct sense dominance and social initiative refer to the control of other peoples' behaviours. But social initiative can be exhibited in other ways as well. These other expressions vary in the degree to which they involve direct control of people. The FIRO-B has three scales which are suited for testing how general this tendency to control is. The first scale, called expressed control, measures the need to control other people. This is the core idea of dominance and was expected to be highly correlated with MNQDOM. The second scale, expressed inclusion, measures the need to include other people in ones activities. It clearly involves social initiative but does not necessarily include strong control of others' behaviours. Its positive correlation with MNQDOM was not expected to be as strong as that for expressed control. The third scale, expressed affection, measures the desire to be affectionate and loving towards others. Social initiative is involved here but there is even less control than for expressed inclusion. This scale was expected to show the weakest positive correlation with MNQDOM.

Hypothesis 4. MNQDOM will be positively correlated with the FIRO-B scales of expressed control, expressed inclusion and expressed affection, with the strongest correlation being with expressed control, the weakest with expressed affection.

The autonomy aspect of the dominance construct was evaluated with the other three scales of the FIRO-B. The first, wanted control, indicates the strength of a person's desire to be controlled by others. This is clearly the reverse of autonomy and was expected to be negatively correlated with MNQDOM. The second scale, wanted inclusion, indicates the strength of a person's desire to be included in other people's activities. This also represents some surrender of control and was expected to be negatively correlated with MNQDOM. Finally, wanted affection indicates the strength of a person's desire to receive expressions of affection from others. It also represents a desire to be the receptor of others' initiatives and was expected to be negatively correlated with MNQDOM, although less strongly than the other two scales.

Hypothesis 5. MNQDOM will be negatively correlated with the FIRO-B scales of wanted control, wanted inclusion and wanted affection, with the strongest correlation being with wanted control, the weakest with wanted affection.

METHOD

The participants in this study were 118 MBA students enrolled in an Organizational Behaviour course. Their mean years of work experience was 5.1 and their mean age 26 years. 42 were female.

The measures used in this study were as follows. MNQDOM was from Steers and Braunstein (1976). The JCE was from Stahl (1986). The FIRO-B was from Hall, Bowen, Lewicki and Hall (1982). The peer ratings of dominance, achievement, affiliation and autonomy were gathered using a modified version of the MNQ. The items for each MNQ scale were reworded to be appropriate for describing someone else rather than oneself. Four peers described each individual (see

procedure below) and the means of the four raters were used as the behaviour ratings.

The procedure used for collecting the data was as follows. During the first week of classes respondents were asked to fill out MNQDOM, the JCE and the FIRO-B. They were told that their own results would be returned to them, individually, in confidence, later in the course when issues of power and leadership were discussed. It was stressed that participation was voluntary and that the results would be most useful for self-diagnosis and action planning if an attitude of frank self-assessment were taken. All people in the course filled out questionnaires. A requirement of the course was that students form themselves into groups of five and carry out field studies. The groups were to be formed and operating by the fifth week of classes. In the ninth week of classes the peer ratings were completed. Each respondent rated only the four other members of his or her field study group. Thus, at the time of the peer rating, the raters had been working with each other for at least a month. Respondents were told that each individual would receive, in confidence, the mean ratings given to him or her by the other group members, after the course was completed. The diagnostic value of the results was stressed as was the voluntary nature of participation. After the peer ratings had been completed results from the MNQDOM, JCE and FIRO-B were released. At the end of the course peer ratings were released.

RESULTS & DISCUSSION

Table 2 shows the Cronbach alphas for all of the scales used in this study (where appropriate) and the correlations found between each of those scales and MNQDOM. Hypothesis 1 was confirmed. The

Cronbach alpha for MNQDOM was .77. Hypothesis 2 was confirmed. A positive correlation was found between MNQDOM and the JCE measure of power but not between MNQDOM and the JCE measures of achievement and affiliation. Hypothesis 3 was confirmed. There were positive correlations between MNQDOM and peer ratings of dominance, autonomy and achievement with the largest correlation being with dominance, and no significant correlation with affiliation. Hypothesis 4 was confirmed. There were significant positive correlations between MNQDOM and the expressed control, expressed inclusion and expressed affection scales of the FIRO-B. Expressed control had the largest correlation at .77, and expressed affection the smallest, at .17. Hypothesis 5 was only partly confirmed. As predicted, there was a negative correlation between MNQDOM and wanted control. The predicted negative correlations between MNQDOM and wanted inclusion and wanted affection were not found. However, the order of the correlations was as predicted, running from most negative to least negative, with the least negative being a positive value of $r = .18$, for wanted affection.

 Insert Table 2 about here

The literature reviewed and the data presented here suggest that it is reasonable to use MNQDOM as a measure of the need for dominance since it has demonstrated reliability, convergent validity and construct validity. The present study is one in a growing list of those which have found MNQDOM to have an internal reliability alpha greater than .70. The convergent validity of MNQDOM was shown here with the JCE and behavioural ratings. The results with the JCE

replicated a past study. The behavioural ratings showed for the first time that peer ratings converge with MNQDOM. Two past studies have also shown that MNQDOM correlates with the dominance scale of the PRF. The construct validity of MNQDOM was supported by the FIRO-B. This supported past findings that the dominance construct should include not only the idea of control of other people, but also the concepts of social initiative and autonomy. Past studies have also shown that those high in MNQDOM tend to ascend the managerial hierarchy and are rated by their immediate superiors as displaying greater management competence than those low in MNQDOM. Past studies have shown that high MNQDOM managers prefer a political/persuasive style.

But these findings do not preclude the need to improve MNQDOM and do not suggest that other instruments should be abandoned. The internal reliability alpha for MNQDOM is acceptable but not good and should be improved by changing and/or adding questions. To date the convergent and construct validities of MNQDOM have been demonstrated but not the predictive validity. Studies with other instruments such as the TAT and the JCE have shown that the need for power works best as a predictor of management behaviour when used in conjunction with other variables such as inhibition and the need for achievement (McClelland, 1985; Stahl, 1986). Likewise, MNQDOM may find its greatest predictive validity when combined with other variables. MNQDOM in its present form is very useful for researchers who want a very short measure of the need for dominance but other instruments have their virtues as well. For instance, the JCE, which is more extensively validated, may be more appropriate for researchers less

pressed for respondent time and who also want to measure the needs for achievement and affiliation with one standardized instrument.

The data in this study generally support the construct of the need for dominance as it has emerged in past studies but there are some results which bear further discussion. The proposition that the need for dominance involves a propensity for autonomy is not as clearly supported as other aspects of the construct. The supporting data include Steers and Braunstein's (1976) finding of a positive correlation between MNQDOM and a preference for controlling ones own work pace, and a negative correlation between MNQDOM and a preference for high externally imposed work structure; Mayes and Ganster's (1983) finding of a positive correlation between MNQDOM and the PRF measure of autonomy; the present study's finding of a positive correlation between MNQDOM and peer ratings of autonomy. However, an attempt in the present study to confirm this further did not yield supportive data. It was predicted that all of the FIRO-B wanted scales would have negative correlations with MNQDOM since they all involved some surrender of autonomy. However, only the wanted control scale, that most clearly involving the surrender of autonomy, showed a negative correlation. Wanted inclusion showed no correlation and wanted affection showed a positive correlation. These unexpected findings might be explained by the assumption that social initiative is more central to the need for dominance than is autonomy. For this reason all of the correlations for variables related to social initiative were as predicted but some of those for autonomy were not. In the worst case there was a positive correlation between MNQDOM and wanted affection. It may be that

those high in the need for dominance see expressions of affection from others as signs that they have dominance over those others.

The findings of the present paper put into a new perspective one of the basic justifications put forward for the study of dominance. A number of writers in this area suggest that, with refinement, dominance could be used as a basis for selecting managers (Chusmir, 1985; House & Singh, 1987; Medcof, 1985; McClelland, 1985; Stahl, 1986). But given the preferred management style of those with high MNQDOM that strategy may not be universally appropriate. Those high in MNQDOM are weak in delegation and in participative management, which are often touted as desirable approaches. Given this, those doing the selection might be tempted to specifically exclude those high in MNQDOM. An alternative approach might be to select those high in MNQDOM because of their tendency towards social initiative, but to give them training to counteract the undesirable tendency to control too much.

In conclusion it can be said that MNQDOM should take its place in the toolbox of instruments acceptable for use in the study of the need for dominance. Research to improve the scale and to demonstrate its predictive validity (perhaps in conjunction with other variables) is likely to be fruitful.

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TABLE 1

Correlations Between MNQDOM and Various Measures

<u>Variable Correlated</u>	<u>r</u>	<u>Study</u>
CONVERGENT VALIDITY		
Dominance (PRF)	.62*	Steers & Braunstein (1976)
Dominance (PRF)	.74***	Mayes & Ganster (1983)
Achievement (PRF)	.37***	"
Affiliation (PRF)	.10	"
Autonomy (PRF)	.29***	"
Need for Power (JCE)	.34*	Stahl & Harrell (1982)
Need for Achievement (JCE)	-.02	"
Need for Affiliation (JCE)	-.06	"
Dominance behaviour ratings by faculty	.74*	Steers & Braunstein (1976)
Dominance behaviour ratings by psychologists	.49*	"
CONSTRUCT VALIDITY		
<u>Managerial Ability</u>		
Delegation ability	-.31**	Steers & Braunstein (1976)
Control ability	.30**	"
Persuasiveness	.30**	"
Self-confidence	.29**	"
Overall leadership ability	.32**	"
Managerial level	.43*	Chusmir & Hood (1986)
Managerial level	.17**	Kirchmeyer (1978)
Holding supervisory rank	.19***	Steers & Braunstein (1976)
Managerial level	.03	"

TABLE 1 CONTINUED

Persistence & Social Initiative

Type A Behaviour Pattern	.30*	Chusmir & Hood (1986)
Number of grievances filed	.30***	Dalton & Todor (1979)
Preference to be a leader	.47***	Steers & Braunstein (1976)
Preference to play a major role in group performance	.39***	"

Autonomy and Self-direction

Prefer externally imposed task structure	-.18*	Steers & Braunstein (1976)
Prefer to control own workspace	.17*	"

POLITICAL/PERSUASIVE MANAGEMENT STYLE

Frequency of steward pre-grievance settlement	.31***	Dalton & Todor
Engagement in politics	.18**	Kirchmeyer (1987)
Belief in Inherency of politics	.16**	"
Use of persuasion	.30**	Mowday (1979)
Use of manipulation	.28**	"
Appeal to policies & rules	-.26*	"
Use of rewards & exchanges	.09	"
Perceived politicization of own organization as whole	-.15*	Kirchmeyer (1987)
Perceived politicization of personnel related functions	-.14*	"

in own organization

Note. PRF - Personality Research Form. JCE - Job Choice Exercise.

r - correlation coefficient.

(* $p < .05$ ** $p < .01$ *** $p < .001$)

TABLE 2

Cronbach Alphas of and Selected Correlations between the Scales
Used in this Study

<u>VARIABLES</u>	alpha	r
MNQDOM	.77	-
CONVERGENT VALIDITY (JCE)	.	
Need for Power	NA	.32***
Need for Achievement	NA	-.14
Need for Affiliation	NA	-.09
CONVERGENT VALIDITY (Peer ratings)		
Need for Dominance	.93	.45***
Need for Autonomy	.67	.16*
Need for Achievement	.72	.27**
Need for Affiliation	.54	.01
CONSTRUCT VALIDITY (FIRO-B)		
Expressed control	.93	.77***
Expressed inclusion	.84	.36***
Expressed affection	.83	.17*
Wanted control	.83	-.31***
Wanted inclusion	.95	.14
<u>Wanted affection</u>	<u>.82</u>	<u>.18*</u>

Note. r - pearson correlations between MNQDOM and the indicated variables. NA - not applicable. (* p<.05 ** p<.01 *** p<.001)

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