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The Myers-Briggs type indicator and transformational leadership

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Abstract

Purpose – This paper aims to study the possible relationship between elements of personality as measured by the Myers-Briggs type indicator (MBTI) and transformational leadership (TL) as measured by the Multifactor Leadership Questionnaire (MLQ).

Design/methodology/approach – The study was done at the North American manufacturing facility of an international technology company. Utilizing the Multifactor Leadership Questionnaire to measure transformational leadership, over 2,000 followers provided assessments of transformational leadership for 148 managers who had done self-assessments and had completed Form K of the MBTI.

Findings – No relationship was found between follower assessments of transformational leadership and leader personality as measured by the MBTI. Leaders did, however, perceive themselves to be significantly more transformational than did those who reported to them. Leader preference for extraversion over introversion and intuition over perception were both significantly associated with self-reports of transformational leadership.

Research limitations/implications – Studies utilizing large samples across a variety of organizational settings are needed to confirm the results of this study.

Practical implications – This study calls into question the existence of a relationship between the MBTI and transformational leadership. The study does not provide any support for the possible utility of the MBTI for the prediction or explanation of transformational leadership behaviors. Assuming that followers' perceptions of TL are the more valid, the findings suggest that previous results linking MBTI and TL may be measurement artifacts.

Originality/value – Utilizing a large sample, the MLQ and continuous measures of MBTI preferences the results of this study contradict previous reports of a relationship between personality as measured by the MBTI and transformational leadership.

Keywords Transformational leadership, Personality measurement, Self assessment

Paper type Research paper

Introduction

Interest in leadership and social influence can be traced to earliest recorded history (Bass, 1990; Bryman, 1996). However, the process of trying to understand this critical but complex element of human enterprise has been marked by discontinuity with periods of great excitement interspersed with protracted periods of despair and discouragement (Hunt, 1999). Great advancements in social and organizational psychology in the post-Second World War period were accompanied by the emergence of schools of management and an academic-oriented study of management with roots in the scientific method and a rigorous approach to social science (Drucker, 1988). Numerous theories and approaches grew out of this period of productivity only to lose headway during the second half of the twentieth century. By the mid-1960s the lack of a model of leadership that could fully describe the dynamics of the leadership process and the inadequacy of current explanations had significantly discouraged both practitioners and academics (Koontz, 1961). Hunt (1999) points to the emergence of



transformational leadership theory as the force that reenergized the field and stimulated a great leap forward in the understanding of the leadership process.

Traditionally, most studies of leadership concentrate on the behavior of the leader and the impact of that behavior on organizational and individual outcomes. As the study of transformational leadership developed and matured, the end of the century marked a general agreement on both the nature and the efficacy of transformational leadership behaviors (Lowe *et al.*, 1996; Bass and Avolio, 1990; Bass, 1999). Invigorated by the availability of a comprehensive theory and enjoying unusual unanimity in regard to the behavioral dynamics of transformational leadership (Table I), researchers have sought a more complete understanding of the leadership process by directing their attention beyond the observable behaviors of leaders to leader's dispositional qualities and characteristics in an effort to expand and enlarge their understanding of the social influence process.

Generally following an established line of research regarding the impact of personality on transformational leadership (e.g. Schyns and Sanders, 2007; Felfe and Schyns, 2006; Judge and Bono, 2000) and specifically informed by Hautala (2006), the essential question in all of these studies is: to what extent are differences in personality (in this case as measured by the MBTI) associated with perceived differences in leadership behaviors characteristic of transformational leadership? In a study of 439 Finnish leaders and their 380 subordinates, Hautala (2006) concluded that there was a relationship between personality, as measured by the MBTI, and transformational leadership, as measured by Kouzes and Posner's (1998) Leadership Personality Inventory (LPI). Specifically, the results of the cited study indicated that personality

Psychological types Focus and preference

Extraversion-introversion: where you focus your attention

Extraversion	People who prefer extraversion tend to focus their attention on the outer world of people and things
Introversion	People who prefer introversion tend to focus their attention on the inner world of ideas and impressions

Sensing-intuition: the way you take in information

Sensing	People who prefer sensing tend to take in information through the five senses and focus on the here and now
Intuition	People who prefer intuition tend to take in information from patterns and the big picture and focus on future possibilities

Thinking-feeling: the way you make decisions

Thinking	People who prefer thinking tend to make decisions based primarily on logic and on objective analysis of cause and effect
Feeling	People who prefer feeling tend to make decisions based primarily on values and on subjective evaluation of person-centered concerns

Judging-perceiving: how you deal with the outer world

Judging	People who prefer judging tend to like a planned and organized approach to life and prefer to have things settled
Perceiving	People who prefer perceiving tend to like a flexible and spontaneous approach to life and prefer to keep their options open

Source: Adapted from MBTI Report Profile, available at: www.cpp.com/products/mbti/index.asp

Table I.
Elements of the
Myers-Briggs type
indicator

preferences for extroversion, intuition, and perceiving were positively associated with self-reports of transformational leadership and that a perception by subordinates of a sensing preference among leaders was associated with transformational leadership behaviors by their manager.

Our study examines the same conceptual relationships, using a considerably larger sample, continuous measures of MBTI preferences, and a different and much more widely accepted measure of transformational leadership, in the North American manufacturing facility of an international technology company. Following a review of the literature and a description of hypotheses, theoretical framework, and the method for testing, an extensive examination of similarities and differences between the two studies is provided along with potential explanations and conclusions about the relationship between these personality measures and transformational leadership behaviors.

The theoretical framework for this study begins with recognition of transformational leadership's well established positive relationship to desired organizational outcomes. To the extent that transformational leadership is based on and delivered through inborn enduring personal differences, it seems logical that personality preferences measured by the widely used Myers-Briggs Type Indicator have the potential to illuminate important dispositional factors which are associated with transformational leadership behaviors. An improved understanding of this heretofore largely unexamined relationship will contribute to an increased understanding of the social influence process and offer pathways for professional and personal development.

Myers-Briggs type indicator

Described by its authors as one of the world's most widely used tools to describe personality, (Myers and McCaulley, 1985; Myers *et al.*, 1998) the MBTI has its roots in Jungian psychology. Carl Gustav Jung was a Swiss psychiatrist, active in the early to mid-twentieth century, who developed a theory of psychological archetypes which asserts that individuals have distinctive, unlearned tendencies to experience the world in particular ways (Jung, 1971). Jung's occasionally dense and impenetrable theories attracted the attention of a mother and daughter team, Katharine Cook Briggs and Isabel Briggs Myers, who believed that a knowledge of personality preferences would help women who were entering the industrial workforce for the first time during the Second World War to identify the sort of wartime jobs where they would be most comfortable and effective (Myers and Myers, 1995). Extending Jung's concept of psychological archetypes and Katherine Briggs's long-time interest in psychological type, Myers and Briggs developed a personality typology which became known as the Myers-Briggs type indicator (MBTI). In its current form, as utilized in this study, individuals complete 93 forced-choice questions which when scored produces a measurement of three personality dimensions suggested by Jung – i.e. extraversion-introversion, sensing-intuition, thinking-feeling – as well as a fourth – i.e. judgment-perception – added by Briggs and Myers to identify the dominant function (Myers and Myers, 1995). Respondents are provided with a report indicating a preference for behaviors typified by one of the letters in each of the four letter pairs. Each of the dimensions is briefly described in Table I. Each combination of four letters creates one of 16 different psychological types.

As previously noted, the MBTI has been extensively used for over 50 years in an extraordinarily wide variety of management and interpersonal development applications (Gardner and Martinko, 1996). Along with this commercial success has come considerable criticism, primarily from academic psychologists. Not surprisingly much of the controversy centers on validity issues. Among the concerns raised has been the use of a typology to describe personality (Mendelsohn *et al.*, 1982), the use of dichotomous scores (Cohen, 1983), the fact that the data are self-reported (Podsakoff and Organ, 1986), and more general construct validity issues (McCrae and Costa, 1989; Sipps and Alexander, 1987; Sipps and DiCaudo, 1988). These concerns must be weighed against generally supportive validity studies (e.g. Carlyn, 1977; Carlson, 1989). Perhaps most persuasive in terms of this study is the extensive review of the use of the MBTI to study managers by Gardner and Martinko (1996) in which they concluded that there is sufficient validity to warrant additional research into the relationship between the MBTI and management.

Transformational leadership

In 1978 a book on political leadership was published which would have a profound effect on the study of leadership and management in contemporary society. James MacGregor Burns's book *Leadership* (Burns, 1978) is a study of effective leaders of large political systems. Having studied leaders such as Franklin D. Roosevelt, Nikolai Lenin, Louis XVI, and John F. Kennedy, Burns developed a taxonomy of leadership which characterized leaders as either "transactional" or "transformational". Burns (1978) described transactional leaders as occurring when "one person takes the initiative in making contact with others for the purpose of an exchange of value things" (p. 19). On the other hand, transformational leadership occurs "when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (p. 20). While Burns recognized the efficacy of both forms of leadership he concluded that transformational leadership, with a strong moral dimension, was associated with effective leadership in times of instability and destabilizing change and was more enduring than transactional leadership.

Burns's work attracted the attention of management researchers mired in a period characterized by frustration and a lack of progress in regard to leadership theory (Hunt, 1999). Bass and his colleagues further developed and operationalized the concept of transformational leadership and created an instrument for its measurement, the Multifactor Leadership Questionnaire (MLQ) (Bass, 1985a; Bass and Avolio, 1990). Utilizing factor analysis, Bass and Avolio (1990) extracted the four categories of transformational leadership behavior described in Table II. An overall measure of transformational leadership consists of the aggregate of the four subscale measures. These measures are part of the MLQ which has been determined to be a reliable instrument for the measurement of transformational leadership (Bass and Avolio, 1990; Lowe *et al.*, 1996). Although there have been alternative operational definitions of transformational leadership (Kouzes and Posner, 1988; Tichy and Devanna, 1990; Podsakoff *et al.*, 1990) none of them have gained the level of utilization of the MLQ nor have they been subjected to equivalent levels of validity or reliability test as has the MLQ (Cole *et al.*, 2006).

Transformational leadership and organizational outcomes

Numerous studies soon appeared in the academic literature, the overwhelming majority utilizing the MLQ, affirming the efficacy of transformational leadership across an extremely wide variety of organizational and cultural settings (e.g. Bass, 1985b; Bass *et al.*, 1987; Avolio *et al.*, 1988; Hater and Bass, 1988; Atwater and Yammarino, 1993; Howell and Avolio, 1993; Yammarino *et al.*, 1993; Sosik, 1997). These results have been affirmed in studies limited to European settings and samples (Den Hartog *et al.*, 1997; Kuchinke, 1999).

The individual cited studies, as well as meta-evaluations (Fuller *et al.*, 1996; Lowe *et al.*, 1996) have consistently supported the notion that the extent to which leaders and managers engage in transformational leadership behaviors can predict or explain various measures of desired organizational outcomes. This foundational case for the positive impact of transformational leadership was established in studies that utilized both follower self-reports and organizational outcomes as dependent variables. The self-perception measures have frequently included the follower self-reports of perceptions of unit effectiveness, satisfaction with supervision and willingness to expend extra effort embedded in the MLQ (e.g. Bass, 1985a; Bass and Avolio, 1990). Examples of organizational outcomes measured in the studies included in the cited meta-evaluations ranged from performance appraisals (e.g. Hater and Bass, 1988; Waldman *et al.*, 1987); financial performance on a classroom computer simulation (Avolio *et al.*, 1988); sales performance (Yammarino and Dublinsky, 1994) to R&D project quality (Keller, 1992). Lowe *et al.* (1996) found no significant differences in the support for the efficacy of transformational leadership across studies utilizing self-perception or organizational measures as criterion variables.

As the study of the relationship between transformational leadership on organizational outcomes has continued, additional studies, albeit not in large numbers, utilizing hard objective and financial measures as criterion variables have appeared. Using data from 48 *Fortune* 500 firms, Waldman *et al.* (2001) found that during periods of uncertainty there was a positive relationship between CEO transformational leadership and financial performance. Howell *et al.* (2005) measured the transformational leadership behaviors of 101 senior banking managers and found that it positively predicted their unit performance as measured by profit, revenue and productivity. Utilizing a quasi-experimental research design, Barling *et al.* (1996) reported that training which resulted in increased leader transformational leadership behaviors was significantly and positively associated with the branch-level financial performance of

Table II.
The four Is of
transformational
leadership

Factor	Description
Individualized consideration	Gives personal attention to others, making each individual feel uniquely valued
Intellectual stimulation	Actively encourages a new look at old methods, stimulates creativity, encourages others to look at problems and issues in a new way
Inspirational motivation	Increases optimism and enthusiasm, communicates high expectations, points out possibilities not previously considered
Idealized influence	Provides vision and a sense of purpose. Elicits respect, trust, and confidence from followers

those leaders. In a study of small and medium sized enterprises Matzler *et al.* (2008) found that transformational leadership behaviors by top management had a positive impact on innovation, firm growth, and profitability. Using data from 94 top management teams, Colbert *et al.* (2008) found that at the organizational level, CEO transformational leadership was positively related to within-team goal importance congruence, which in turn was positively related to organizational performance to include returns on financial assets.

A key theoretical foundation of this study is that transformational leadership has considerable and broad potential benefit to organizations.

Transformational leadership and the MBTI

Over time there has been enormous flux in opinions regarding the possibility of a relationship between personality and leadership. With roots in the Great Man theories, which reached back into earliest recorded history, the notion that personal qualities and characteristics were the key determinants of leadership effectiveness dominated leadership theory well into the 1940s (Bass, 1990). A seminal review by Stogdill (1948) cast the first considerable doubt on trait theory on the grounds that leadership requires action and the mere possession of a trait or characteristic does not necessarily signal leadership capability. Stodgill's work engendered something of a paradigm shift and provided impetus which launched leadership theorists onto consideration of situational factors and leader behaviors. Nevertheless, an interest in the role of traits in determining leadership effectiveness has never completely disappeared. In the early 1960s Tupes and Christal (1961), along with Norman (1963), did the foundational work for what would eventually be known as the "Big Five" model of the most salient aspects of personality.

The five-factor model stimulated a resurgence of interest in the role of traits in leadership, albeit as more of a complimentary rather than comprehensive model. In most of the results, the most predictive of the big five factors is extraversion, although there are some conflicting findings. Judge and Bono (2000) used the five-factor model and found extraversion to be a marginal predictor of TL behaviors. Ployhart *et al.* (2001), using a sophisticated structural equation modeling analysis, found extraversion to be a strong predictor of both typical and maximum performance, after correction for methods error and measurement error attenuation. Rubin *et al.* (2005) tested for, but did not find, a relationship between extraversion and TL behaviors, although they did find that extraversion moderated the relationship between emotional recognition and TL.

In a meta-evaluation Judge *et al.* (2002) found strong support for the leader trait perspective when traits are organized according to the five-factor model. A meta-analysis of the specific relationship between personality and transformational leadership done by Bono and Judge (2004) found "generally weak associations" (p. 908). The generalized interest in the possibility of personality or dispositional factors has extended to other personality factors to include the previously described MBTI. In a comprehensive study of the relationship between the MBTI and leadership Gardner and Martinko (1996) found various relationships between elements of the MBTI and leadership but concluded that "linkages between type preferences and managerial effectiveness were disappointing" (p. 77).

Atwater and Roush (1992) investigated the relationship among leadership style, MBTI, and organizational outcomes using a sample of student leaders at the US Naval Academy. Using both follower reports and self-reports of TL they found leaders

viewed themselves as more transformational than did the midshipmen who reported to those leaders. Using a median split on the follower-reported TL subscales, Atwater and Roush (1992) found relationships between the MBTI sensing/intuition and two of the four TL subscales. Further, they found relationships between the thinking/feeling MBTI dimension and all four of the TL subscales. Although actual data is not presented, one might infer from the ϕ coefficients and the discussion that the sensing preference was negatively correlated with follower perceptions of TL and feeling was positively correlated with follower TL perceptions. Relationships for leader self-reported TL are not described. As is typical, leader perceptions of TL were higher than follower perceptions.

This study follows Hautala (2006) who also found a relationship between sensing preference from the MBTI and follower reported transformational leadership in a Finnish sample. When leader self-reports of TL were used, extraversion, intuition and perception were related to TL. She also found leaders reporting more TL than did their followers.

Hypotheses

Given the well established positive relationship between transformational leadership and desired organizational outcomes a confirmation and extension of a relationship with the MBTI would illuminate an important dispositional factor and lay the groundwork for further understanding of leadership dynamics with implications for personal and professional development. This gives rise to the first hypothesis of the study.

- H1.* Transformational leadership (TL) positively predicts desirable organizational outcomes (DO).

This hypothesis seeks to determine if the well-established relationship between TL and DO can be confirmed in this study. The objective is not so much to add to the understanding of this is already well-established relationship, but to provide reassurance that the sample is non-idiosyncratic and to lay the groundwork for an examination as to how MBTI might impact the leadership influence process.

There have been several lines of research indicating that the degree of agreement between leaders and followers regarding the dynamics of a leadership situation is associated with leadership effectiveness. Leaders who are in agreement with followers and those underestimate their capabilities have generally been found to be more effective than over-estimators (Atwater and Yammarino, 1993, 1997; Moshavi *et al.*, 2003; Sosik, 1997). Although Hautala (2006) found no agreement between subordinate and leader assessments the concept will be further examined in the second hypothesis:

- H2.* Leaders will evaluate themselves as more transformational than subordinates.

Hautala (2006) found that leaders' self-reports of transformational leadership were positively associated with extraversion, intuitiveness, and perceiving preferences. In this study this dimension will be examined as follows:

- H3.* The elements of personality measured by the MBTI are associated with self-reported transformational leadership.

- H3a.* A measure of extraversion/Introversion is significantly associated with self perceptions of transformational leadership behaviors.
- H3b.* A measure of Intuition/Sensing is significantly associated with self-perceptions of transformational leadership behaviors.
- H3c.* A measure of thinking/feeling is significantly associated with self perceptions of transformational leadership behaviors.
- H3d.* A measure of judging/perceiving is significantly associated with self perceptions of transformational leadership behaviors.

Hautala (2006) reports that sensing is the only element of the MBTI associated with subordinate ratings of leader transformational leadership. In this study we will examine all combinations as follows:

- H4.* The elements of personality measured by the MBTI are associated with follower reports of transformational leadership.
- H4a.* A measure of extraversion/introversion is significantly associated with follower reports of transformational leadership.
- H4b.* A measure of intuition/sensing is significantly associated with follower reports of transformational leadership.
- H4c.* A measure of thinking/feeling is significantly associated with follower reports of transformational leadership.
- H4d.* A measure of judging/perceiving is significantly associated with follower reports of transformational leadership.

Method

Hypotheses from this study were tested at a large North American telecommunications manufacturing facility which is a part of an international technology company. The data utilized in this study was collected as a part of a management development project conducted at the facility.

Leadership measures

The most widely used measure of transformational leadership, the Multifactor Leadership Questionnaire (MLQ), was developed by Bass and Avolio (1990) and has been shown to be a valid and reliable instrument for the measurement of the behaviors associated with transformational leadership (Antonakis *et al.*, 2003; Tepper and Percy, 1994). Both the Rater and Leader forms of Version 5X of the MLQ were utilized in this study. This Rater form solicits the opinion of subjects regarding the extent to which their supervisor or managers engage in the behaviors which are characteristic of each of the elements of transformational leadership. The Leader version of the MLQ solicits self-reports as to the extent to which the individual completing the report that they engage in transformational leadership behaviors. The scales of interest in this study are the four elements of TL described in Table II. A single measure of TL was computed by aggregating the four sub-scale measures.

Desirable organizational outcome measures

The MLQ also contains questions that solicit respondent opinions as to their perceptions of unit effectiveness, satisfaction with supervision, and their willingness to expend extra effort. Each of these outcome measures is the product of three or four questions that are averaged together to form a single scale.

MBTI personality measures

MBTI Form K was used to assess personality preferences of the subjects in this study. As previously noted, the MBTI is a typology that typically relies on dichotomous scores when reporting results. However, the use of Form K also permits the use of continuous scores. Continuous scores are suggested by the MBTI manual for correlational research (Myers and McCaulley, 1985). The use of continuous scores also helps to overcome bimodality (Hicks, 1985; Wiggins, 1992), and improves statistical power (Cohen, 1983).

Sample and survey administration

As a part of the management development program all employees at the manufacturing facility attended one of several data collection sessions held over a ten-day period. At these sessions the purpose of the management development initiative was explained by a senior manager. After receiving assurances of anonymity each individual was asked to complete the rater form of the MLQ. During the same period all professional employees, managers and supervisors attended an additional data collection session in which they completed Form K of the MBTI. Managers and supervisors also completed the Leader version of the MLQ.

A total of 408 managers, supervisors, engineers and professional staff members completed the MBTI Form K and a self-report of transformational leadership behaviors (MLQ Leader form). Two thousand four hundred and twenty-five Rater forms of the MLQ were completed, of which 2,411 were usable for the purposes of the study. A minimum of three follower reports were available for 148 managers and supervisors who had also completed MBTI and the Leader version of the MLQ. The average number of follower responses for each of the 148 leader was 16. Managers/supervisors in the study had an average of 178 months of longevity in the company, 28 percent identified themselves as female, and 72 percent as male.

Thus, at the end of the data collection period, demographic data, MBTI continuous scores, and self-assessments of TL behaviors, assessments of unit effectiveness, satisfaction with supervision, and willingness to expend extra effort were available for 408 managers and professional staff members. Of those 408 individuals 148 were working manager/supervisors for whom all of the aforementioned data was available in addition to the follower assessments of TL behaviors from over 2,000 individuals who reported to them. These data elements were utilized to test each of the hypothesized relationships.

Results

The first hypothesis examines the relationship between TL and DO. Table III contains the results of a regression analysis where each of the four components and the TL summary scores were used to predict the three Desirable Organizational Outcomes. In

every case there was a statistically significant positive relationship, indicating strong support for *H1*.

The second hypothesis examines the relationship between how transformational leaders perceive themselves to be compared with how transformational their subordinates perceive them to be. In past research, it has generally been found that leaders are more likely to perceive themselves as transformational while subordinates perceive them as less so. Table IV compares the mean self-assessment TL scores to the mean follower assessment TL scores. Using a paired comparison *t*-test, it is clear that *H2* is strongly supported. For the TL scale overall and for each of the four components, the leaders rated themselves as significantly more transformational as did those leaders' subordinates.

H3 and *H4* examine the relationship between the MBTI dimensions and self and follower reported transformational leadership. Table V presents the correlations between the various TL dimensions and the overall TL scale – as the leaders assess themselves – and the four MBTI dimensions. These results partially confirm *H3*. Specifically, there were statistically significant positive correlations between the extraversion/introversion dimension and self-reports of TL. There were statistically significant negative correlations between the sensing/intuition dimension and three of the four component parts of TL and the overall TL scale – again as self-reported. Thus *H3a* and *H3b* are confirmed.

When TL assessment is based on the followers' reports, the results are substantially different. In Table VI, similar correlations are assembled, the only difference being that

	Extra effort	Organizational effectiveness	Leader satisfaction
Transformational leadership	0.93*	0.93*	0.91*
Individual consideration	0.88*	0.90*	0.89*
Intellectual stimulation	0.90*	0.89*	0.88*
Inspirational motivation	0.86*	0.87*	0.84*
Idealized influence	0.91*	0.92*	0.89*

Notes: Values reported are β values from simple regressions using TL (or component) as IV and DO as DV. * $p \leq 0.001$

Table III.
Regression of
organizational outcomes
on TL

Scale	Mean leader self-assessment	Mean follower self-assessment	Difference	Student's <i>t</i> " value	df	Significance of <i>t</i>
Transformational leadership	3.13	2.41	0.712	12.3	145	0.000
Individual consideration	3.18	2.30	0.889	13.4	145	0.000
Intellectual stimulation	3.05	2.34	0.705	11.6	145	0.000
Inspirational motivation	3.17	2.59	0.588	9.5	145	0.000
Idealized influence	3.13	2.46	0.673	10.8	145	0.000

Table IV.
Mean differences between
leader perceptions of TL
and follower perceptions
of TL

in this case the TL scores are based on follower reports. The pattern is very different. None of the correlations are statistically significant. Neither *H4* nor any of the sub-hypotheses are supported.

Discussion

TL and Desirable Outcomes

Although it is not a new finding, the results clearly indicate a strong link between follower perceptions of a leader’s use of transformational leadership style and the organizationally desirable outcomes measured by the MLQ. In fact, the β values, which approach 1, suggest that there is likely some common method variance that explains at least some of the observed fit. In any case, the results are reassuring that this data set is similar to virtually all reported results observing TL and these outcome measures. Thus we can be confident that the rest of the results come from a setting that is comparable to prior research.

Self-reported TL versus follower-reported TL

As was the case with previous research, leaders rated themselves as significantly more transformational as did their followers. There are several possible explanations for this finding. Perhaps there is a social desirability bias in the MLQ scale such that leaders are able to perceive that the TL responses are more socially acceptable. Alternatively, biases in self-perceptions may cause these same leaders to actually view themselves as more transformational than their subordinates’ perceptions.

TL and MBTI

The results here are largely similar to those reported by Hautala (2006). When she compared self-reports of TL to MBTI measures in a Finnish sample, she found that self-reported TL was related to extraversion and intuition – which is the same in our

Table V.
Correlations of MBTI
dimensions with leader
perceptions of TL

MBTI dimension	Transformational leadership	Individual consideration	Intellectual stimulation	Inspirational motivation	Idealized influence
Extraversion to introversion	0.207 *	0.122	0.140 **	0.269 *	0.171 *
Sensing to intuition	- 0.196 *	- 0.133	- 0.236 *	- 0.165 *	- 0.146 **
Thinking to feeling	0.016	- 0.021	0.059	0.029	- 0.012
Judging to perceiving	0.010	0.020	- 0.025	0.028	0.056

Notes: Values reported are point biserial correlations; * $p \leq 0.001$; ** $p \leq 0.01$

Table VI.
Correlations of MBTI
dimensions with follower
perceptions of TL

MBTI dimension	Transformational leadership	Individual consideration	Intellectual stimulation	Inspirational motivation	Idealized influence
Extraversion to introversion	- 0.078	- 0.073	- 0.105	- 0.039	- 0.083
Sensing to intuition	- 0.069	- 0.08	- 0.075	- 0.036	- 0.081
Thinking to feeling	- 0.020	- 0.022	- 0.022	- 0.036	- 0.003
Judging to perceiving	- 0.020	- 0.046	- 0.046	0.019	- 0.006

Note: Values reported are point biserial correlations

results. She also found that self reported TL was related to perceiving, a finding that our research did not replicate. It should be noted that her study used a different measure of TL – specifically a Finnish version of the Leadership Practices Inventory (Posner and Kouzes, 1990).

When follower reported TL is considered, our findings are much less congruent. We found no relationship between any of the MBTI dimensions and TL. Hautala (2006) reports a relationship between sensing preference and TL.

Significance of the study

The results of the study clearly call into question any studies that have examined relationships between transformational leadership and personality, where TL is measured using the leaders' self reports. Our findings showed significant relationships between two of the MBTI dimensions and self-reported TL. When follower reports of TL were used, there were no significant relationships of any kind. Followers are likely less biased raters of a leader's use of transformational-style leadership. In point of fact, the components of the TL scale are all based on the followers' reaction to the leader, specifically the degree to which the leader provides individual consideration, intellectually stimulation, motivational inspiration and idealized influence to the followers. TL is necessarily in the eye of the follower. When leaders rate their own behavior they are undoubtedly impacted by egocentric bias, where we are usually the kindest judges of our own actions, and social desirability biases, where respondents are likely to respond more positively to scale items that are perceived as more socially acceptable.

A key use of MBTI in management development is that it informs individuals regarding their innate preferences for interaction, but also that those preferences are not irresistible. Each preference dimension represents both opportunity and liability in a given situation. No one should be held responsible or rewarded for their preference, for instance in selection, but rather for the effectiveness of their behaviors. The usefulness of the MBTI lies in helping individuals to understanding their innate preferred behavioral styles. Individuals can be encouraged to consider when behaving in accordance with innate preference is helpful as well as to develop and appropriately deploy effective behavioral repertoires in opposition to preferences. On the issue of the relationship between TL and personality, our study fits with other research that has shown personality variables to have very limited utility for explaining TL. More significantly the findings of this study are in contrast to the findings of Atwater and Roush (1992) and Hautala (2006) regarding the specific positive utility of the MBTI to explain transformational leadership behaviors. In this study follower perception of leadership effectiveness was independent of the focal leader's psychological type. It is really not possible to conclude whether that independence is a function of personal development or irrelevance.

Limitations

As noted previously, this study was conducted in a US manufacturing facility, giving rise to the possibility that the results might be bound to those unique cultural or organizational circumstances, a circumstance shared by most field research. However, it is reasonable to presume that the relatively large sample in this study would provide psychological and cultural diversity. Although the examination of the relationship

between transformational leadership and desired organizational outcomes is tangential to the core objectives of the study, the fact that the dependent variables were collected in the same manner as leadership measures in that part of the study raises the possibility of previously mentioned common method variance. A more complete understanding of the relationship between personality, dispositional factors and leadership will be advanced through well-designed studies of these elements in a large number of cultural and organizational settings.

MBTI measures cognitive preferences of respondents. The MLQ measures perceptions of behavior. Just because a respondent has a preference for a particular cognitive style does not necessarily mean that they will actually report that style. As we have seen, one potential explanation for some of the results of previous research is that managers overstate their use of transformational styles when compared with subordinates' perceptions. It may well be that choices among MBTI preferences may be subject to similar biases. Further misclassification of the actual MBTI preferences might occur, although using strength of preference measures would seem to reduce this risk.

Future research directions

Echoing the standard plea in most leadership research, these topics deserve further attention in high-quality samples from other types of organizational settings, ideally from other cultural milieus. In this case, there is a special urgency to the need to further explore these relationships, since now there are two studies with different populations, from different cultures and using different TL measures, that have somewhat different results arriving at substantially different conclusions.

A second opportunity is to further explore the relationship between self-reported TL and other personality measures and some standard social desirability measures. It would be interesting to know if the positive bias in leader reports of TL were explainable by personality differences or differences in susceptibility to social desirability biases. Past research (Atwater and Roush, 1992; Atwater and Yammarino, 1993; Moshavi *et al.*, 2003) has shown that those leaders whose TL ratings are more in agreement with those of their followers are better liked and more effective. Humility and modesty might be desirable traits in a leader. Alternatively, it might be that these leaders are in fact more cognizant of how their actions are perceived by their reports.

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