FIELD INDEPENDENCE/DEPENDENCE: A HYPOTHESIZED RELATIONSHIP WITH LEADERSHIP AND MANAGEMENTS

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Past studies shows field independents (FI) are good leaders and field dependents (FD) are good managers, (Bacon, 2004; Bennis, 1989). Hence this paper proposes the hypothesis that there is relationship between cognitive style category (FI, FD) and management. The hypothesis suggested in this paper is based on a study by Naimie (2003) on language-learning strategies preferred by FI and FD. The results of the mentioned study indicate that the FI learners choose memory strategies more than others while FD choose social strategies. FI and FD have different characteristics concerning leadership and managerial styles too. One hundred and forty second year Iranian students who were English language majors completed the Group Embedded Figures Test (GEFT) as a scale of field independence/dependence. This paper explores the relationship between cognitive styles category to leadership and management. The paper hypothesizes that FI are good leaders while FD can be good managers. The manager uses a formal, rational method whilst the leader uses passion and stirs emotions Managers get people to work to their capacity; leaders get them to exceed their capacity. According to Bacon (2004) the leaders who have bold, fresh, new ideas but might not have experience are focused on the bigger picture and they Are not comfortable with "intense detail", they see mistakes as a learning opportunity (Kotter, 1988) and they are Transformational with New roads; however, managers who have experience like to be problem solvers. Rather than attempt to solve a problem themselves – and risk making the situation worse –they are comfortable with detail and they are Transactional with Existing roads. It is also suggested that the GEFT is a tool in order to achieve the goals of the organization.

Keywords: Cognitive style, Field Independent (FI), Field Dependent (FD), leadership, management

Various aspects of the cognitive style have been identified in psychological literature. Cognitive style normally appeared as dichotomies. One of the important dichotomies which has received the greatest attention, is field dependence/independence (FD/FI) among others. Brown (2000, pp. 105-106) simplified the FD/FI in example format as follows: "Do you remember, in those coloring books you pored over as a child, a picture of a forest scene with exotic trees and flowers, and a caption under the picture saying, "Find the hidden monkeys in the trees"? If you looked carefully, you soon begin to spot them, some upside down, some sideways, some high and some low, a dozen or so monkeys camouflaged by the lines of what at first sight looked just like leaves and trees. The ability to find those hidden monkeys hinged upon your *field-independent* style: your ability to perceive a particular, relevant item or factor in a "field" of distracting items....*Field dependence* is, conversely, the tendency to be dependent on the total field so that the parts embedded within the field are not easily perceived, though that total field is perceived more clearly as a unified whole. There are positive and negative characteristics to both field independence and field dependence. A field-independent style enables you to distinguish parts from the whole, to concentrate on something (like reading a book in a noisy train station), to analyze separate variables without the contamination of neighboring variables. On the other hand, too much field independence can backfire: cognitive "tunnel vision" forces you to see only the parts and fail to see their relationship to a whole. "You can't see the forest for the trees," as the saying goes. Seen in this light, development of a field-dependent style has positive effects: you perceive the whole picture, the larger view, the general configuration of a problem or idea or event. It

is clear, then, that some degree of both field independence and field dependence is necessary for most of the cognitive and affective problems we face. Brown (2000, pp. 105-106).

People are termed field independent if they are able to extract an element from its context, or background field. In the same direction Chappell and Roberts (1986:28) defined FI /FD characteristics as: "A field independent person may approach problem solving situations analytically, while a field dependent person may approach them in a more global way. In the area of intellectual problem solving, a highly field independent person tends to get lost in totality of the stimuli" Chappell and Roberts (1986, p. 28) .Consequently, a field independent person is at an advantage in problem solving situations in which isolating and manipulating a critical element is important. A field dependent person, on the other hand, is more capable of perceiving the total picture in a situation. Thus, the relationship between field independence /field dependence and success on a given task depends on the nature of the task. Concerning FD/FI individuals, it can be stated that a FI person is able to perceive a particular, relevant item or factor in a "field" of distracting items. The term "field" in general may be perceptual or it may be more abstract in referring to a set of thoughts, ideas, or feelings from which the field independent individuals' task is to perceive specific relevant subsets. FD, on the other hand , is the tendency to be dependent on the total field such that the parts embedded within the field are not easily perceived more clearly as a unified whole. Participatory management is the most important type of management among all. On the other hand, it is considered as the fundamental for the new generations in all settings and specifically educational settings. Considering the points we have mentioned in this paper it is believed that it is a necessity for participatory management to replace authoritative management in the educational setting. This is due the innovatory aspects of participatory management.

Innovation is generally understood as the introduction of a new thing or method. Innovation is the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or services (Luecke & Katz, 2003). Innovation means bringing into effect new and more effective products, services, or approaches. Continuous innovation allows companies to adapt to constantly changing conditions. According to Montano (2006) innovation is the staging of value and/or the conservation of value. In the organizational context, innovation may be linked to performance and growth through improvements in efficiency, productivity, quality, competitive positioning.

While innovation typically adds value, innovation may also have a negative or destructive effect as new developments clear away or change old organizational forms and practices. Organizations that do not innovate effectively may be destroyed by those that do. Hence innovation typically involves risk. Failure is an inevitable part of the innovation process, and most successful organizations factor in an appropriate level of risk. Innovation helps organization to enhance team building efforts. Teamwork and innovation go hand-in-hand. Where you have innovation, you almost always find cross-functional and specialist teams working to carry it out (Barnecut, 2002).

Innovation typically involves creativity, but is not the same; innovation involves acting on the creative ideas to make some specific and tangible difference in the domain in which the innovation occurs; according to Amabile et al. (1996) all innovation begins with creative ideas and it is the successful implementation of creative ideas within an organization. In addition such factors as trust, group openness, instructional leadership, involvement, and achievement have been cited as influential in the transformation of schools (Peterson, 1997; Watson, 2000).

Literature Review

Cognitive styles are actually broad personal styles, which show typical ways in which we process information. In other words, it refers to preferred ways individuals choose to perceive, organize, analyze or collect information or experiences. How much do you know about the field dependent and field independent? Have you ever asked yourself what are the differences between field dependence and field independence?

Brown (2000) defined the Field Independent person as having an advantage in problem solving situations in which isolating and controlling a critical element is important. A field dependent person, on the other hand, is more capable of perceiving the total picture in a situation. It is assumed

that a field independent individual will perform some tasks more effectively than a field dependent; the opposite will be true for other tasks. Principal characteristics of a field independent and field dependent cognitive style can be summarized based on Hawkey (1982) as in Table 1.

Table 1
Characteristics of Field Dependent/ Field Independent Individuals

Field dependence	Field independence
1. Personal orientation i.e. reliance on external from of reference in processing information	2. Impersonal orientation i.e. reliance on internal frame of reference in processing information
2.Holistic, i.e. perceive a field as whole; parts are fused with background	2. Analytic,i.e. perceive a field in terms of its component parts; parts are distinguished from background
3.Dependent ,i.e. the self view is derived from Others	3. Independent, i.e. sense of separate identity
4.Socially sensitive,i.e. greater skill in interpersonal/social relationship	4. Not so socially aware,i.e.less skilled in interpersonal/social relationship

Ellis, 1993; based on Hawkey: 1982

In other words, cognitive styles are actually broad personal styles which show typical ways in which we process information. Some examples of cognitive styles that have been identified include: reflectiveness versus impulsiveness (the tendency to react to situations slowly, after examining several alternative responses, or rapidly with the first response that comes to mind); cognitive complexity versus simplicity (the tendency to view the world along many or few parameters; and tolerance for unrealistic experiences (the degree of comfort with experiences that are out of the ordinary) (Bertini, 1986).

Leadership and management are two notions that are often used interchangeably. However, these words actually describe two different concepts. Leadership is the process of influencing others to understand and agree about what needs to be done and how it can be done effectively (Yukl, 2002). Koontz and O'Donnell (1976) and Terry (1960) sate that leadership is influencing people to follow in the achievement of a common goal and managers have subordinates unless their title is honorary and given as a mark of seniority, in which case the title is a misnomer and their power over others is other than formal authority.

If management is about planning, budgeting, organizing, controlling, staffing, and problem solving, then leadership is about setting direction, getting people aligned, and motivating and inspiring them (Maccoby, 2000).

These distinctions are important because, too often, people who think they are leading are really managing. By and large, managers must cope with complexity; leaders must cope with change. Managers get people to work to their capacity; leaders get them to exceed their capacity. Both management and leadership are important; the educational environment could not function effectively for very long without both of them, but management is focused more on the present and leadership more on the future (Bacon & Struggles, 2004).

Bolman and Deal (1997) reported on the characteristics of effective leadership. The first characteristic is that effective leaders help establish a vision. The second is that effective leaders have a commitment to a vision and the ability to passionately communicate that vision to others. The third is that effective leaders have the ability to inspire trust and build relationships within the organization.

Telling people what to do does not inspire them to follow you. You have to appeal to them, showing how following them will lead to their hearts' desire (Bennis & Nanus 1985; Kotter, 1988).

Leaders create change and ensure that others embrace it. The word lead means to go from – leaders tend to take their followers from one place to another (Sanborn, 1996) and help others do the things they know need to be done to achieve a common vision (Fagiano, 1997). On the other hand managers change when they have to. The word manage means to handle (Sanborn, 1996) and get things done through other people (Fagiano, 1997).

Although leaders are good with people (Bolman& Deal, 1997), this does not mean they are friendly with them. In order to keep the mystique of leadership, they often retain a degree of separation and aloofness. This does not mean that leaders do not pay attention to tasks; in fact they are often very achievement-focused. What they do realize, however, is the importance of enthusing others to work towards their vision. In the same study that showed managers as risk-averse, leaders appeared as risk-seeking (Burns, 1978), although they are not blind thrill-seekers. They are thus comfortable with risk and will see routes that others avoid as potential opportunities for advantage and will happily break rules in order to get things done. A surprising number of these leaders had some form of handicap in their lives, which they had to overcome. Some had traumatic childhoods, some had problems such as dyslexia, others were shorter than average (Bacon & Struggles, 2004; Bennis & Nanus 1985).

Managers think incrementally, while leaders think radically. Managers do things right, while leaders do the right thing (Pascale, 1990). Leaders stand out by being different. They question assumptions and are suspicious of tradition. They seek out the truth and make decisions based on fact, not prejudice. They prefer innovation. (Fenton, 1990). "Leaders must let vision, strategies, goals, and values be the guide-post for action and behavior rather than attempting to control others" (Predpall, 1994).

The leader must make a point of highlighting the successes within a team, using charts or graphs, with little presentations and fun ideas. Leaders are observant and sensitive people. They know their team and develop mutual confidence within it (Fenton, 1990).

Good leaders operate out of a clear understanding of their values, goals, and beliefs and also those of their followers. Leaders both influence and are constrained by the organizational context. Leaders may, with good results, use any of a variety of styles and strategies of leadership, including hierarchical, transformational, and participative, depending on their reading of themselves, their followers, and the organizational context.

Methodology

Among the three types of research, this present study is a descriptive and correlational study. It is considered as correlational because it is looking at the relationship between the FI and Leadership, and FD with Managements. The instrument used is the Group Embedded Figure Test (GEFT) invented by Witkin (1971) and mainly used to determine the learner's degree of field dependence and field independence.

Results

Hypothesis 1:

There is relationship between field independent (FI) and Leadership characteristics.

FI are analytic and conceptually oriented (Brown, 1987, Jamieson, 1992, Chappell & Roberts, 1986, Witkin et al., 1977; Goodenough & Karp, 1961); Inattentive to details, aloof (Riding & Dyer, 1983, Witkin et al., 1977; Canelos, Taylor, & Gates, 1980); Less affected by format (Witkin et al., 1977; Lu & Suen, 1995; Skaggs, Rocklin, Dansereau, & Hall, 1990); Experimental, Generates on hypothesis (Witkin et al., 1977; Goodfellow, 1980; Phifer, 1983); risk takers, generate structure (Witkin et al., 1977; King, 1983; Vaidya & Chansky, 1980). On the other hand, leaders must be both transforming and highly effective (Bacon & Struggles, 2004; Bass, 1990; Burns, 1978; Daft, 1995; Yukl, 1998). They must possess highly developed interpersonal and organizational skills in order to bring about

change in traditional organizations. They are Innovators (Bass, 1990; Bacon & Struggles, 2004; Covey, 1989). Leaders must be risk-takers and creators of new ways of working together in the community (Bacon & Struggles, 2004; Burns, 1978; Terry, 1960). They must have creative ability, and Look for new road (Kotter, 1990; Yukl, 1998) and they think outside the box. (Bacon & Struggles, 2004; Daft, 1995) in addition they focus on the big picture (Burns, 1978; Kotter, 1988, 1990) and are not comfortable with details (Kotter, 1990).

Hypothesis 2:

There is relationship between field dependent (FD) and management characteristics

FD are global (Brown, 1987; Jamieson, 1992; Chappell & Roberts, 1986), factually oriented (Witkin et al., 1977; Goodenough & Karp, 1961), attentive to information (Riding & Dyer, 1983; Witkin et al., 1977; Canelos, Taylor, & Gates, 1980) need friendship (Witkin et al., 1977), Influenced by format (Witkin et al., 1977)(Lu & Suen, 1995, Skaggs, Rocklin, Dansereau, & Hall, 1990); Traditional (Witkin et al., 1977; Goodfellow, 1980); Influenced by the salient feature (Witkin et al., 1977; Phifer, 1983); Avoid risk (Witkin et al., 1977; King, 1983); Accept structure and use the data prepared by others (Witkin et al., 1977; Vaidya & Chansky, 1980). Managers are Working on existing roads (Kotter, 1990; Yukl, 1998) and Focus on structure (Covey, 1989; Bass, 1990; Bacon & Struggles, 2004). In addition they Focus on set objectives (Burns, 1978; Kotter, 1988, 1990) and are comfortable with details (Kotter, 1990); they think inside the box and makes rules (Yukl, 1998; Daft, 1995; Bacon & Struggles, 2004). They minimize risk (Bacon& Struggles, 2004; Burns, 1978; Terry, 1960;).

Table 2
Comparison of the FI/FD with Leadership and Management

FI	FD	Leadership	Management
Analytic	Global	Sets direction	Plans detail
Conceptually oriented	Factually oriented	Focus on big picture	Focus on set objectives
Inattentive to details	Attentive to information	Not comfortable with the details	Comfortable with details
Aloof	Needs friendship	Prefer to be unpopular	Attend to be known
Less affected by format	Influence by format	Think outside the box	Think inside the box
Experimental	Traditional	Looking for new road	Working on existing road
Generates hypothesis	Influenced by the salient feature	Innovates	Focus on structure
Risk takers	Avoid risk	Takes risk	Minimizes risk
Generates structure	Accept structure	Break rules	Makes rules

Table 2 declared the compatibility of the proposed hypothesis with research results, that there is a relationship between Field independent (FI) and Leadership characteristics and also Field dependent (FD) and management characteristics. On the other hand, the findings of this study can be useful for the educational curriculum designer to utilize in human resource decision-making. It may also be useful to avoid trial and error in the educational environment. Based on the suitable environment provided, we can explore the hidden potential of an individual in order to use it for the compatibility of the human resource with their capability in the educational organization.

Conclusion

The discussion of cognition suggests a fresh analysis of organizations and a new set of tools to do the Learning. Understanding cognition and other information systems will help managers and individual contributors to accurately value knowledge, improve learning and communication. Director organizations tend to create a work environment that reflects the type of information they prefer to attend to, their preference for organizing information, and their preference for work output. The cognitive sciences can help director organizations be flexible to design more efficient processes that take into account information from the total organization.

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