Selecting Change Agents: Exploring Traits and Skills in a Simulated Environment

IOANNIS NIKOLAOU*, ATHANASIOS GOURAS*, MARIA VAKOLA** & DIMITRIS BOURANTAS*

*Department of Management Science & Technology, Athens University of Economics & Business, Greece,
**Department of Marketing and Management, Athens University of Economics & Business, Greece

ABSTRACT  In the new organizational environment, when business and even political leaders declare their dedication to change, it is a very important need for organizations to recruit and select people capable not only to bring or initiate but, also, handle change effectively. However, only a few attempts have been made to identify the personality profile of a person, able to fulfill the requirements of this position. The current study tries to shed light on this issue by examining if dispositional characteristics and competencies are related to attitudes to change, adopting an experimental business game scenario simulating a real business change context. Participants completed self-report questionnaires assessing their dispositional traits whereas their performance and change management skills were assessed by independent observers. Results displayed that resilient employees consider themselves as more ready to accept and apply change, as opposed to change-related skills which seemed to predict only task performance and not acceptance of change. The study concludes with a discussion of the findings, managerial implications and possible limitations.

KEY WORDS: Change agents, dispositional characteristics, competencies, attitudes to change, task performance

Introduction

As organizations try to survive and remain competitive, they are reorganizing, re-engineering, downsizing and implementing new technology. In other words, they constantly try to change. The American Management Association reported
that 84% of US companies were in the process of at least one major change initiative and 46% said that they had three or more change initiatives/programmes in progress (Peak, 1996). Also, a study conducted by the US Bureau of National Affairs (1996) reported that organizational change was a major concern for more than a third of the 396 participating organizations. These ongoing and seemingly endless efforts can put a lot of strain not only on organizations but also on individuals. Beer and Nohria (2000) argue that 70% of change programmes fail because of lack of strategy and vision, lack of communication and trust, lack of top management commitment, lack of resources, lack of change management skills, resistance to change and so on. However, research dealing with organizational change has mainly focused on organizational factors neglecting the person-oriented issues. Could this be one of the reasons why change management programmes often fail? We believe that a one-sided approach in preparing for change, such as the emphasis on the macro-level aspects of organizational change, misses out significant pieces of the change puzzle. Although some researchers have called for more focus on micro-level aspects of organizational change, this research still remains quite limited, with only a few exceptions (see Bray, 1994; Judge et al., 1999; Wanberg and Banas, 2000). Our aim in the current study is to explore and identify the necessary personality characteristics and skills of the most important people involved in change: the change agents.

Therefore, a very significant stage of an organizational change effort is the selection of the individuals who will design and execute the change with success. These individuals, often referred in the literature as the ‘change agents’, will be called upon to evangelize on behalf of the changes (Jick and Peiperl, 2003). They will be the facilitators of planned processes of change (Beckhard, 1969; Tichy, 1974), enable and empower individual employees and self-managed teams to take responsibility for a number of decisions (Walton, 1985; Lawler, 1986) and act as consultants in the coordination and project management of the change effort (Sadler, 2001). Therefore, an organization in order to struggle a winner out of change must achieve in selecting the right people as change agents to help promote change throughout the organization. Ideally, every employee of the organization involved in the change management effort should be able to act as a change agent. The focus of the current study is to explore and identify the major personality characteristics along with the most significant skills and competencies required to the effective change agent, using a simulation change-management business game.

Personality, Personnel Selection and Organizational Change

Earlier research on organizational change has generally focused on a systems and structural approach to effective organizational change, thus neglecting the fact that individuals are the ones that make it happen. An organization seeking to successfully implement change must understand that it requires encouraging individuals to enact new behaviours so that desired change outcomes are achieved. According to Judge et al. (1999), people-oriented research in organizational change explored issues of charismatic or transformational leadership, the role of top management in organizational change and the phenomenon of resistance to change, without
considering the psychological traits or predispositions of individuals experiencing the change, which are equally crucial for its success. Nevertheless, they argued that individual difference variables, such as locus of control, positive affectivity, openness to experience and tolerance for ambiguity play an important role in employees’ work attitudes (for example organizational commitment, satisfaction), as well as predicting self and supervisory assessments of coping with change. King and Anderson (1995) also indicated the role of individual differences, along with previous bad experiences of change, as responsible for high levels of negative attitudes and resistance to change.

Dispositional traits and the respective personality measures are increasingly being used by managers and human resource professionals to evaluate the suitability of job applicants for various positions within organizations. Rothstein and Goffin (2006) in the most recent review of the subject, provided quite an optimistic viewpoint. They suggested that a few meta-analytic studies have clearly demonstrated that a number of personality dispositions, such as those expressed by the widely used taxonomy of the Five-Factor of personality, may contribute to the successful prediction of job performance criteria. Similar findings were presented in earlier studies exploring the same topic. However, it is remarkable that we identified only a few studies exploring the role of personality dispositions and personality assessment for personnel selection as applied in organizational change settings.

Lau and Woodman (1995) argued that attitudes toward organizational change depend on an individual’s change schemata which are defined as ‘mental maps representing knowledge structures of change attributes, and relationships among different change events’ (Lau and Woodman, 1995, p. 538). These researchers suggested that there are significant relationships between such schemata and the reactions of individuals to change. Bandura (1977), quite early on, noted that employees with high levels of change-related self-efficacy (the perceived ability to function well on the job despite the demands of the changing working environment), are unlikely to be distressed by feelings of inadequacy and, for this reason, are expected to persist in their efforts to manage the organizational change process. Moreover, they perceive the changing environment as less stressful, thereby experiencing less psychological strain (Ashford, 1988).

Personality variables have also been researched as to their effect on coping with change by Judge et al. (1999), who argue that success of change efforts lies in the abilities and motivation of the individuals within the organization, helping them to cope adequately with the change process (Judge et al., 1999). Seven personality variables have been identified in their study: locus-of-control, generalized self-efficacy, self-esteem, positive affectivity, openness to experience, tolerance for ambiguity and risk aversion.

Dispositional Characteristics of the Effective Change Agent

A detailed review of the individual differences literature identified a number of personality traits as having direct relevance with the requirements of the successful organizational, career and/or life change. These traits are described in the following sections.
Self-Efficacy

Bandura (1977) defines self-efficacy as ‘the convictions that one can successfully execute the behavior require producing the outcomes’. Judge et al. (1999) defined generalized self-efficacy as one’s estimates of one’s capabilities to mobilize the motivation, cognitive resources and courses of action needed to exercise general control over events in one’s life. Self-efficacy is particularly salient in situations that the individual may regard as unpredictable or stressful. Other research (Chwalisz et al., 1992) demonstrated that self-efficacy is correlated with major career events, such as career change, and other research correlates low self-efficacy with job withdrawal and situations, such as resistance to change (McDonald and Siegall, 1992). Thus, all these results converge to the point that self-efficacy is a precursor for positive attitudes towards critical career events, especially those which involve job and organizational change. A substantial body of research indicates that self-efficacy is related to task effort and performance, persistence, resilience in the face of failure, effective problem solving and self-control (Bandura, 1986; Gist and Mitchell, 1992). Moreover, self-efficacy exerts a mediating effect on readiness for individual (Prochaska et al., 1997) and organizational change (Pond et al., 1984; Armenakis et al., 1993; Prochaska et al., 1994). The positive relationship between self-efficacy and readiness for change is also confirmed by Cunningham et al. (2002).

Further, employees with confidence in their ability to cope with change should be more likely to contribute to organizational redesign, whereas workers may resist changes that they believe exceed their coping capabilities (Armenakis et al., 1993). It is predicted that staff who were confident in their ability to cope with job change and who adopted an active approach to job problem solving would have a higher readiness for change scores and participate in a greater number of organizational redesign activities. Readiness for change research suggests that a demonstrable need for change, a sense of one’s ability to successfully accomplish change (self-efficacy) and an opportunity to participate in the change process, contribute to readiness for organizational change (Armenakis et al., 1993). Therefore:

H1: Self-efficacy is expected to demonstrate positive correlations with attitudes to change and overall team performance in a change management situation.

Locus of Control

Rotter (1966) proposed the concept of locus of control as the individual’s perception of his or her ability to exercise control over the environment. Those characterized by internal locus of control believe they have control over their environment and their personal successes, whereas those with an external locus of control view their lives as controlled by external factors such as chance, fate or powerful others. Locus of control is one of the most widely researched topics in Organizational Behaviour literature identifying links with, amongst other things, job performance, job satisfaction and change attitudes.

A great extent of research has suggested the existence of a link between locus of control and coping with organizational change. Several studies have shown that
internal locus of control is associated with problem-focused coping strategies (Anderson, 1977; Callan et al., 1994) and individuals with an internal locus of control are likely to suffer the ill effects of stressors (Kobasa, 1979). Similarly, it is found (Nelson et al., 1995) that employees with internal locus of control reported more positive attitudes in their organizations experiencing changes than employees with external locus of control. Given the general pattern of associations between locus of control and major life and work-related events, one would expect similar relationships between this construct and individual differences in coping with organizational change. Finally, there is evidence (Callan et al., 1994) for the robust relationship between internal locus of control and individuals’ adaptation to change within work organizations and significant support to the fact that locus of control is associated with the concept of resistance to change (Oreg, 2003). Therefore:

**H2**: Locus of control is expected to demonstrate positive correlations with attitudes to change and overall team performance in a change management situation.

**Core Self-Evaluations**

The core self-evaluations are defined as basic conclusions or bottom-line evaluations that individuals hold about themselves (Judge et al., 1997). In other words, it is a basic, fundamental appraisal of one’s worthiness, effectiveness and capability as a person (Judge et al., 2003). This, recently investigated, personality trait represents the underlying broad common core of more specific personality traits that meet three criteria: (a) evaluation focus; (b) fundamentality; and (c) breadth/scope (Judge et al., 1997; Judge and Bono, 2001). Judge et al.’s (1997) review identified four traits that met those criteria: self-esteem; neuroticism; locus of control; and generalized self-efficacy.

As core self-evaluation is a broad, latent trait that is the common source of the four specific traits, it is the psychological mechanism that causes these individual traits to be correlated (Judge et al., 2003). According to Judge et al. (2003), high self-esteem, high generalized self-efficacy, internal locus of control and low neuroticism result from a broad, general, positive self concept, in other words, from high core self-evaluations. Latent constructs exist at a deeper level than their indicators and causally influence the indicators or dimensions (Bollen and Lennox, 1991). Thus, when an individual has a positive self-concept, measures of the four core traits – self-esteem, neuroticism, locus of control and generalized self-efficacy – are manifestations or indicators of this inner self-concept or core self-evaluations, and this explains why the four traits are conceptually and empirically related (Judge et al., 2003). So, according to Law et al. (1998) and Judge et al. (2003), core self-evaluations (CSE) are not just a multidimensional aggregate construct comprised of dimensions that may or may not be related, but it is a latent psychological construct that measures the ‘latent commonality underlying the dimensions’.

Very few studies have explored the relationship between CSE and attitudes towards change. One of the most significant studies in the field was carried out by Judge et al. (1999). In this study, three of the four facets of CSE constitute a separate high construct with high internal validity. This construct was called
positive self concept and it was identified to have significant positive correlations to coping with change. Thus, indirectly, considering the fact that the two constructs are almost similar and the fact that the relationship exists regardless of the source of coping assessment, CSE should exhibit the same correlation as well. Employees who are confident about their abilities and are able to cope with stressful events, such as change, tend to perceive change as positive and as a result they experience higher levels of readiness to change. Therefore:

**H3:** Core-self evaluation is expected to demonstrate positive correlations with attitudes to change and overall team performance in a change management situation.

**Openness to Experience**

Openness to Experience remains the most controversial and debatable of the Big Five factors (Digman, 1990). However, it is a very important construct, especially in a world characterized by diversity and rapid change. Goldberg (1992) defines Openness to Experience as intelligence, perceptiveness, creativity, imagination, tolerance and inquisitiveness. McCrae and Costa (1997) indicated a positive relationship between Openness to Experience and utilization of effective coping mechanisms in order to deal with stressful events in life and to effective coping and adjustment. Therefore, Openness to Experience is a dimension that can be related to positive attitudes toward change, since it describes employees who can demonstrate effective coping mechanisms, are open to new ideas and suggestions and, are tolerant and perceptive. These findings provide indications that high openness to experience individuals tend to perceive change as less stressful and cope more effectively with it (Judge et al., 1999). Similar findings were obtained by Vakola et al. (2004) who also identified that attitudes to change were positively associated with Openness to Experience. Therefore:

**H4:** Openness to experience is expected to demonstrate positive correlations with attitudes to change and overall team performance in a change management situation.

**Personal Resilience and Dispositional Resistance to Change**

Another dispositional trait that seems to gather the research interest considering the relationship with change behaviours is personal or psychological resilience consisting of, according to Major et al. (1998), self-esteem, optimism, and perceived control as highly correlated variables. Psychologically-resilient people are characterized by the ability to bounce back from negative emotional experiences and by flexible adaptation to the changing demands of stressful experiences (Lazarus, 1993; Block and Kremen, 1996). A convergence across several research methodologies indicates that resilient individuals have optimistic, zestful and energetic approaches to life, are curious and open to new experiences and, are characterized by high positive emotionality (Block and Kremen, 1996). This construct has its origins behind cognitive adaptation theory (Taylor & Brown, 1988; Aspinwall and Taylor, 1992) according to which individuals with the highest levels of well-being during stressful life events are those who have high levels
of self-esteem (for example, a high sense of self-worth), optimism (a highly positive outlook on life) and perceived control (a view of life and situations as being under personal control). Therefore, it is expected that individuals with high levels of resilience will be most likely to benefit from participation in change processes.

A more recent term justified and used by Oreg (2003, 2006) should be introduced here because it represents a dispositional factor in relation to organizational change. The concept is dispositional resistance to change and it was designed to measure the personality component of resistance to change (Oreg, 2003). According to Oreg, people differ in their internal inclination to resist or adopt changes. These differences can predict people’s attitudes towards specific changes – both voluntary and imposed. A strong component in the definition of the resistance to change personality trait (Oreg, 2003) involves individuals’ emotional predispositions towards change. In the study of employees’ reactions to an office move (Oreg, 2003), dispositional resistance to change had its strongest impact on employees’ emotional responses. Another significant, yet weaker, relationship that was found in Oreg’s (2003) study was between dispositional resistance and employees’ behavioural reactions (that is, avoiding coming to the office, taking action against the move) to the change. The same attempt has been conducted more recently (Oreg, 2006), where it was expected that dispositional resistance to change would correlate with employees’ affective resistance to change. Indeed, the resistance to change personality trait, which is conceptualized as a stable personality trait, showed a strong association with the affective component and a weaker, yet still significant, association with behavioural intention to resist. This suggests that some employees are more likely to experience negative emotions and to act against organizational changes because of their dispositional inclination, independently of the particular nature of the change at hand. Therefore:

\[ H5: \text{Personal resilience is expected to demonstrate positive correlations with attitudes to change and overall team performance in a change management situation, and} \]

\[ H6: \text{Dispositional resistance to change is expected to demonstrate negative correlations with attitudes to change and overall team performance in a change management situation.} \]

**Skills and Competencies of Change Agents**

The research covering the issue of the appropriate skills and competencies of the effective change manager is also quite limited, consisting mainly from theoretical or practice-oriented papers. Early evidence, considering the implementation of a technological change, identified several qualities for effective change champions (Beatty and Gordon, 1988; Beatty and Lee, 1992). The same group of researchers also argued that the change agent must combine problem-solving, vision, determination, technical expertise and interpersonal and political skills.

The role of change agents as facilitators is extensively discussed within a rational framework. For example, Buchanan and Boddy (1992) list competencies of effective change agents as clarity of specifying goals, team building activities,
communication skills, negotiation skills and ‘influencing skills’ to gain commitment to goals. It can be deduced from these arguments that limitations in change management are associated with the managerial perceptions of the need for change, the opportunity to change and about the way to change. This renders perceptions, beliefs and assumptions of change agents as vital aspects to be understood. Buchanan and Boddy’s study, *The Expertise of the Change Agent* (1992) was a sustained attempt to apply the managerial concept of competency to change agency.

Bennis (1993) defined four competencies for change agents to be successful in helping organizations to achieve effectiveness, improvement, development, and enhancement. In his view, the four essential competencies for success include the following: (1) broad knowledge of the intelligence from the behavioural sciences and theories and methods of change; (2) operational and relational skills, such as the ability to listen, observe, identify and report, and to form relationships based on trust; (3) sensitivity and maturity, including self-recognition of motivators and the perceptions that others have of these motivators; and (4) authenticity in living and acting in accordance to humanistic values.

In addition to the change agent competencies described above, Bennis (1993) also found that change agents intervene at different levels of an organization at different times, while working with people and building relationships within the target organization. To be effective at these different levels, a change agent must rely on skills from both project management and organizational development (OD) – including planning, managing tasks, leading project teams, and interfacing with the users in the organization – and on general knowledge of IT, business and human behaviour (Johnson and Fredian, 1986; Koehler, 1987; Bloom, 1989).

A set of common principles exists between the OD practitioner and the project manager according to Adams et al. (1997). These include communication, teamwork, process management, leadership, training and continuous learning. Clarke and Meldrum (1999) identified five aspects for the successful creation of the capacity of change management: vision, ambition and personal risk, positioning, subversion and political awareness. Some authors have also stressed the meaning of leadership of change (Hooper and Potter, 2000) in identifying the appropriate change agents. They demonstrate that leadership of change, means ‘developing a vision of the future, crafting strategies to bring that vision into reality and ensuring that everybody in the organization is mobilizing their energies towards the same goals . . . the process called emotional alignment’. Heifetz & Laurie (1997) argued that the most difficult challenges facing leaders today, are making sure that people in the organization can adapt to change and that leaders can envisage where the organization is currently placed in the market and where it should be in the future.

Motivated by the above, Gill (2003) displayed two competencies significant for the leader acting in the change context: alignment and adaptability. Alignment is displayed by a shared understanding, common orientation, values and shared priorities. Adaptability is displayed by environmental sensitivity, tolerance for contrary views, a willingness to experiment, tolerate failure and learn from it, and the ability to respond quickly to change – organizational agility. In the role of the change agent, somebody seeks to act as an unbiased facilitator, positively involved in consultative or consensus-seeking interventions based on open dialogue,
feedback and group ownership (Tichy, 1974). This requires change agents’ attributes that are broadly synonymous with process consultation: listening, providing feedback, counselling, coaching, and inter-group dynamics (Schein, 1988). However, the OD practitioner must also be able to demonstrate general consultancy skills and an instrumental knowledge of OD tools and techniques (Lacey, 1995; Cummings and Worley, 1997). Various traits and skills were associated with the change masters-leaders and their impact on employees: self-identification, courage and outspokenness, belief in people, openness to lifelong learning, ability to deal with complexity and uncertainty and, their powerful strategic vision (Caldwell, 2003). Other characteristics include flexibility, personal drive, desire to lead, honesty and integrity, cognitive ability, self-confidence, knowledge of the business (Kirkpatrick and Locke, 1991) and risk-taking (Dulworth and Herbert, 2000). Change agent competencies are not founded on codified expertise, knowledge or techniques that can be instrumentally applied or learnt through conventional educational or training interventions (Benett and Leducowicz, 1983). Rather, they are learning processes involving experimentation and personal practices that translate explicit and tacit organizational knowledge into collective understanding of the need for change. Therefore:

H7: Change-related skills and competencies are expected to demonstrate positive correlations with attitudes to change and overall team performance in a change management situation.

Attitudes to Change

According to Elizur and Guttman (1976), attitudes toward change, in general, consist of a person’s cognitions about change, affective reactions to change, and behavioural tendency toward change. Affective responses are feelings of being linked to, satisfied with, or anxious about change. Cognitive responses are the options one has about the advantages and the disadvantages, usefulness and necessity, and about the knowledge required to handle the change. Finally, instrumental responses are the actions already taken or which will be taken in the future for or against change. Similarly, early attitude theorists (Katz, 1960; Rosenberg and Hovland, 1960) argued that attitudes are structured along three dimensions that roughly correspond with the three definitions that have dominated research on resistance to change. These three dimensions of attitudes are the cognitive, emotional and intentional ones. This conception is known as the tripartite view of attitudes (Ajzen, 1984). Additional evidence for the multidimensional view of attitudes stems from Dunham et al. (1989) who concluded that attitudes toward change are general components of a person’s cognitions about change, affective reactions to change and behavioural tendency toward change.

Dunham et al. (1989) constructed a scale measuring the tripartite view of attitudes. High score indicates willingness to support change across issues and time. The cognitive dimension of attitude towards change focuses on the degree to which a person believes that change tends to produce positive effects for the organization, for co-workers and for him/herself. Those with high scores on the cognitive aspect of attitude towards change generally believe that change produces
positive results. The affective dimension of attitude towards change deals with the feelings people have about change. A person with high scores on the affective dimension is a person who looks forward to change, who enjoys change. This is a person who, when faced with significant change in the organization, expects an enjoyable – perhaps challenging – situation. The third dimension is the behavioural tendency dimension. This is the degree to which the person is likely to support change and is likely to initiate change. A person with high scores on the behavioural tendency dimension is the kind of person we tend to refer to as a change agent: the person who initiates change, who supports change.

Change can be received with excitement and happiness or anger and fear while employees’ response to it may range from positive intentions to support the change to negative intentions to oppose it. Gilmore and Barnett (1992), Kotter (1996) and Eby et al. (2000) have shown that positive attitudes to change were found to be vital in achieving organizational goals and in succeeding in change programmes. Also, Schweiger and DeNisi (1991) suggested that uncertainty attached to organizational and personal changes, that usually follow mergers and acquisitions, creates negative attitudes to change which lead to some dysfunctional outcomes, such as low job satisfaction, stress, low organizational commitment and low trust in the organization. Iverson (1996) noted that employees with high organizational commitment are more supportive of the goals and values of the organization, willing to expend considerably more effort on behalf of the organization, and thus more likely to accept organizational change.

Taken together, the above evidence suggests that both personality dispositions and skills/competencies should be important for the successful implementation of a change management programme. In order to substantiate this argument, we investigated the interaction between a set of significant change-related dispositions and skills on participants’ attitudes towards change in a simulated environment. We were also interested in examining whether change-related skills and competencies will explain additional variance above and beyond the effect of dispositions, as we were expecting (H8). Finally, we explored whether participants’ attitudes towards change mediate the relationship between individuals’ dispositions, change-related skills and competencies and overall team performance, based on the belief that even when the individuals possess the necessary dispositional characteristics and change management skills to facilitate change, if their attitudes towards change are not supportive, then their performance during organizational change will decrease (H9).

**Method**

*Participants and Procedure*

The sample used for this study comprised 105 executive MBA students, studying in Athens University of Economics and Business, Athens, Greece, who participated in exchange of course credit (52 men, 53 women; age (mean): 26.84, SD (standard deviation): 3.68). Their work experience ranged from a few months up to 15 years with an average of 3.71 years. Data collection took place in two waves, before and after the execution of a change-related business game,
described below. First, participants completed a booklet, which included the dispositional measures described in the following section, which took place two weeks before the second wave, and subsequently, immediately after the end of the business game, they completed the attitudes to change measure.

The simulation is based on a business game scenario provided by Elite Training European Ltd under the name of ‘The We Can Do Company’. This business game is specifically designed to assess participants’ reactions to change. It incorporates the assessment of team, communication and leadership skills. In brief, during the business game participants are required to prepare and propose the development plan of a new product, working in small groups of four to six people. From time to time the researchers introduced major changes to the teams’ activities, leading them to redesign or even suggest new ideas and proposals. In order to imitate as much as possible a real-life selection paradigm and to avoid common method variance problems, we decided to ask observers to assess participants’ change-related skills/competencies. Therefore, each team was independently monitored by an observer (graduate Human Resources students who were informed in detail about the scope of the study and their role) who was silently attending the course of action and, at the end of the game, was asked to assess the participants’ change-related skills and competencies, described in the measures section. We also assessed each team’s overall performance on the tasks they were required to accomplish. The main purpose of the activity was to identify and score the performance and the behaviour of participants when change occurred.

Measures

Dispositional Measures

Core self evaluations

This construct is measured using a well-established and validated scale developed by Judge et al. (2003). It is a 12-item measure asking the participants to rate the extent to which they agree with each item on a five-point scale ranging from strongly disagree (1) to strongly agree (5). Sample items include ‘I am confident I get the success I deserve in life’ and ‘I determine what will happen in my life’. Of the 12 items, half of them were positively worded (for example, ‘I am confident I get the success I deserve in life’) and the other half was reverse-scored (for example, ‘Sometimes I feel depressed’). The alpha reliability in the current study was 0.78. A high score indicates high core self evaluations.

Openness to experience

Openness is measured with a 15-item scale extracted from a questionnaire developed to measure the Five-Factor model of personality in Greece (Tsaousis and Kerpelis, 2004). The participants were asked to rate the extent to which they agree with each item on a five-point scale ranging from strongly disagree (1) to strongly agree (5). Sample items include ‘I believe I am a person who appreciates art’ and ‘I am certain there is only one true religion (reversed)’. The alpha reliability in the current study was 0.61. A high score indicates high openness to experience.
Psychological resilience

The Ego-Resiliency Scale (Block and Kremen, 1996) was administered to assess psychological resilience, defined as ‘the capacity to modify responses to changing situational demands, especially frustrating or stressful encounters’ (Block and Kremen, 1996, p. 359). This scale consists of 14 items, each responded to on a five-point Likert scale, ranging from 1 (does not apply at all) to 5 (applies very strongly). Sample items include ‘I quickly get over and recover from being startled,’ and ‘I enjoy dealing with new and unusual situations.’ The alpha reliability was 0.602 for this sample. A high score indicates high psychological resilience.

Generalized self-efficacy

Using the Judge et al. (1998) scale, respondents used a 1 (strongly disagree) to 5 (strongly agree) scale to indicate their level of agreement with statements such as ‘I am strong enough to overcome life’s struggles,’ and ‘I often feel that there is nothing that I can do well’ (reverse scored). Example items include, ‘When I make plans, I am certain I can make them work’ and ‘If something looks too complicated, I will not even bother to try it.’ The alpha reliability was 0.73 for this sample.

Locus of control

Locus of control was measured with the internality subscale of Levenson’s (1981) Internal, Powerful Others, and Chance (IPC) Scale, in which respondents used a scale of 1 (strongly disagree) to 5 (strongly agree) to indicate their level of agreement with statements such as, ‘Whether or not I get to be a leader depends mostly on my ability’ and ‘My life is determined by my own actions’. The alpha reliability was 0.68 for this sample.

Dispositional resistance to change

This was measured using a 17-item scale developed by Oreg (2003). The scale has been validated in a variety of contexts and has consistently demonstrated high structural stability and reliability and asks from the participants to rate the extent to which they agree with each item on a six-point scale ranging from strongly disagree (1) to strongly agree (6). Sample items include: ‘When I was informed that there’s going to be a significant change regarding the way things are done at the teamwork activity, I felt stressed’, and ‘When someone pressured me to change something, I tended to resist it even if I thought the change may ultimately benefit me’. An individual with a high score in this scale has the disposition to resist the change proposed whatever the context of change is. The alpha reliability was 0.74 for this sample.

Competencies-Skills

Following discussions with experienced human resource managers and a detailed review of the literature, we came up with the identification of a set of significant competencies and skills which are appropriate for the effective change agent. These were: negotiation skills, conflict skills, communication skills, team building
skills, leadership skills, and project management skills. In order to avoid common method variance problems, we asked the observers to assess participants performance on each of these skills. Observers received a sheet incorporating the definitions of these skills, as extracted by mainstream change management literature and assessed, using single-item measures of these skills, each participants performance on these skills for the group they were monitoring, using a seven-point response scale, ranging from 1 (not at all) to 7 (to a large extent). An exploratory factor analysis suggested the existence one factor explaining 79% of the total variance, with an alpha reliability of 0.93. Therefore, an overall score was also calculated.

Reactions to Change

Attitudes toward organizational change
It was measured with a scale based on Dunham et al.’s (1989) 18-item instrument. Minor amendments were necessary in order to adopt the measure to the present needs of the experimental task. This instrument consists of three subscales, namely cognitive, affective and behavioural tendency. Each subscale consists of six items. Examples of the items included in the cognitive subscale are: ‘I didn’t like change’, ‘I usually resisted new ideas’. Examples of the items included in the affective subscale are: ‘Change usually benefited the teamwork activity’, ‘Most of my team mates benefited from change’. Examples of the items included in the behavioural tendency subscale are: ‘I was looking forward to changes at the teamwork activity’, ‘I was inclined to try new ideas’. A seven-point response scale was employed, ranging from 1 (strongly disagree) to 7 (strongly agree). Moreover, an overall score measuring the general attitudes to change is identified, too. This scale is based on the definition of attitudes toward change in general, which consists of a person’s cognitions about change, affective reactions to change, and behavioural tendency toward change and attitudes toward a specific change, which consists of a person’s cognitions about that change, affective reactions to that change and behavioural tendency toward that change. High score indicates willingness to support change across issues and time. The internal consistency for overall attitudes toward organizational change and for cognitive, affective and behavioural tendency subscales in this study is 0.84, 0.61, 0.70 and 0.75, respectively.

Team Performance

The first two researchers jointly assessed each team’s task performance on a seven-point scale ranging from 1 (poor performance) to 7 (exceptional performance).

Results

Table 1 presents the intercorrelation matrix along with the descriptive statistics of the study’s variables. In accordance with our expectations, most dispositional traits, with the exception of openness to experience, were correlated with the
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<td>0.31**</td>
<td>0.32**</td>
<td>-0.20</td>
<td>-0.21*</td>
<td>-0.13</td>
<td>-0.15</td>
<td>-0.23*</td>
<td>-0.21*</td>
<td>-0.16</td>
</tr>
<tr>
<td>2. Openness to experience</td>
<td>54.43</td>
<td>6.73</td>
<td>0.38**</td>
<td>0.15</td>
<td>0.23*</td>
<td>-0.40**</td>
<td>-0.00</td>
<td>0.25*</td>
<td>0.18</td>
<td>0.18</td>
<td>0.25*</td>
<td>0.18</td>
<td>0.08</td>
<td>0.08</td>
<td>0.12</td>
<td>0.16</td>
<td>0.17</td>
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<tr>
<td>3. Resilience</td>
<td>53.23</td>
<td>4.94</td>
<td>0.39**</td>
<td>0.45**</td>
<td>-0.51**</td>
<td>0.24*</td>
<td>0.36**</td>
<td>0.42**</td>
<td>0.42**</td>
<td>0.09</td>
<td>0.10</td>
<td>0.06</td>
<td>0.12</td>
<td>0.06</td>
<td>0.10</td>
<td>0.00</td>
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<tr>
<td>4. Self efficacy</td>
<td>33.73</td>
<td>3.48</td>
<td>0.51*</td>
<td>-0.34**</td>
<td>0.17</td>
<td>0.31**</td>
<td>0.26*</td>
<td>0.30**</td>
<td>0.03</td>
<td>-0.07</td>
<td>-0.07</td>
<td>-0.01</td>
<td>-0.15</td>
<td>-0.07</td>
<td>-0.01</td>
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<tr>
<td>5. Locus of control</td>
<td>31.39</td>
<td>3.26</td>
<td>-0.38**</td>
<td>0.04</td>
<td>0.32**</td>
<td>0.34**</td>
<td>0.29**</td>
<td>0.07</td>
<td>-0.01</td>
<td>0.01</td>
<td>-0.01</td>
<td>-0.14</td>
<td>-0.02</td>
<td>0.04</td>
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<tr>
<td>6. Resistance to change</td>
<td>44.36</td>
<td>7.68</td>
<td>-0.19</td>
<td>-0.61**</td>
<td>-0.40**</td>
<td>-0.50**</td>
<td>-0.08</td>
<td>-0.10</td>
<td>-0.07</td>
<td>-0.05</td>
<td>0.05</td>
<td>-0.05</td>
<td>0.04</td>
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<tr>
<td>7. Cognitive attitudes</td>
<td>25.85</td>
<td>4.10</td>
<td>0.48**</td>
<td>0.47**</td>
<td>0.77**</td>
<td>-0.03</td>
<td>-0.04</td>
<td>-0.14</td>
<td>-0.03</td>
<td>-0.10</td>
<td>-0.07</td>
<td>0.01</td>
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<tr>
<td>8. Affective attitudes</td>
<td>31.47</td>
<td>4.59</td>
<td>0.57**</td>
<td>0.84**</td>
<td>-0.06</td>
<td>-0.05</td>
<td>-0.14</td>
<td>-0.06</td>
<td>-0.10</td>
<td>-0.09</td>
<td>0.00</td>
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<tr>
<td>9. Behavioral tendency</td>
<td>32.27</td>
<td>4.69</td>
<td>0.84**</td>
<td>0.07</td>
<td>0.05</td>
<td>-0.01</td>
<td>0.01</td>
<td>-0.04</td>
<td>-0.02</td>
<td>-0.14</td>
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<tr>
<td>10. Attitudes overall score</td>
<td>89.59</td>
<td>10.99</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.12</td>
<td>-0.03</td>
<td>-0.10</td>
<td>-0.06</td>
<td>-0.06</td>
<td>0.08</td>
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<tr>
<td>11. Negotiation/conflict resolution</td>
<td>3.59</td>
<td>1.78</td>
<td>0.83**</td>
<td>0.77**</td>
<td>0.82**</td>
<td>0.63**</td>
<td>0.91**</td>
<td>0.08</td>
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<tr>
<td>12. Communication</td>
<td>3.85</td>
<td>1.79</td>
<td>0.78**</td>
<td>0.78**</td>
<td>0.70**</td>
<td>0.92**</td>
<td>0.17</td>
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<tr>
<td>13. Teamwork</td>
<td>3.66</td>
<td>1.78</td>
<td>0.84**</td>
<td>0.58**</td>
<td>0.89**</td>
<td>0.05</td>
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<tr>
<td>14. Leadership</td>
<td>3.42</td>
<td>1.84</td>
<td>0.68**</td>
<td>0.92**</td>
<td>0.04</td>
<td></td>
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<tr>
<td>15. Project management</td>
<td>3.31</td>
<td>1.87</td>
<td>0.81**</td>
<td>0.29**</td>
<td></td>
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<tr>
<td>16. Overall change management skills</td>
<td>17.83</td>
<td>8.06</td>
<td>0.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>17. Overall team performance</td>
<td>5.13</td>
<td>0.55</td>
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</tbody>
</table>
attitudes towards change in the expected direction. Openness to experience demonstrated statistically significant correlation only with the affective component of attitudes toward change. Nevertheless, the change-related competencies and skills did not demonstrate any statistically significant correlations with attitudes towards change.

In order to explore the first seven research questions, a series of hierarchical regression analyses were carried out, controlling for tenure (see Table 2) because of the high range of the participants tenure. The results of these analyses showed that resilience is the only disposition demonstrating statistically significant relationships with attitudes towards change. Further, not one of the

<table>
<thead>
<tr>
<th>Table 2. Hierarchical regression analyses of dispositional traits and work-related skills on attitudes towards change and overall team performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Predictors</strong></td>
</tr>
<tr>
<td>Tenure</td>
</tr>
<tr>
<td>CSE</td>
</tr>
<tr>
<td>Openness</td>
</tr>
<tr>
<td>Resilience</td>
</tr>
<tr>
<td>Self efficacy</td>
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<tr>
<td>Locus of control</td>
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<tr>
<td>Resistance to change</td>
</tr>
</tbody>
</table>

**Notes:** ‘βs’ are taken from the last equation. *p < 0.05; **p < 0.01.
change-related competencies/skills reached a statistically significant level and similar results were obtained when we explored their additive effects above and beyond the effect of the dispositional traits. As far as the prediction of the overall team performance is concerned, only project management skills demonstrated a statistically significant positive correlation, maintaining to a statistically significant level, even when the effect of dispositional characteristics was taken into account. Therefore, only H5, H7, H8 and H9 are partially accepted.

Our final set of results explored the mediating effect of attitudes towards change on the relationship between dispositions, skills and overall team performance. This hypothesis was tested following the procedures outlined by Baron and Kenny (1986) and Frazier et al. (2004). They suggested that three conditions must be met in order to demonstrate mediation. First, the independent variable (dispositions and change-related skills and competencies) and the proposed mediator (attitudes towards change) must each be significantly related to the dependent variable (overall team performance), when considered separately. An examination of the correlation matrix (cf. Table 1) reveals that the independent variables and the mediator are not correlated with the dependent variable and, thereafter, the first requirement for mediation is not satisfied. As a result, a mediating analysis could not be carried out and hypothesis H9 is rejected.

Discussion

The objective of this study was to explore which are the appropriate personality characteristics and skills constituting the ‘recipe of success’ for a person to be a change agent in an organization. Since the success of change efforts lies in the skills and dispositional motivation of individuals within an organization, an individual level approach to correlate dispositions and skills to attitudes and willingness to change was employed, combining both self report (questionnaires) and observation of individual performance to an experimental scenario (change management business game). Several interesting relationships have arisen, representing an important step in understanding change agency as an individual phenomenon by either confirming or rejecting the established hypotheses.

The findings suggest that resilient persons can be proved to be more ready to accept and apply change. This is supported by the available literature and more specifically by Judge et al. (1998), who claimed that ‘individuals with high levels of resilience, as opposed to individuals with low levels of resilience, will be most likely to benefit from participation in change processes’. The above mentioned result came as peculiar enough, due to the fact that the rest of dispositional traits are also characterized in the literature as important in promoting organizational change. Specifically, Callan et al. (1994) and Lau and Woodman (1995) research proved that locus of control completely predicts readiness to change; Pond et al. (1984), Armenakis et al. (1993), Prochaska et al. (1994), (1997) and Cunningham et al. (2002) argued for self efficacy; and, McCrae and Costa (1987) and Costa and McCrae (1992) for openness to experience. A reason could be that some other factors in their working environment, such as job complexity, working characteristics and previous experience with changes, add significance to the model but are not examined in the current study. In other words, when
work context variables are examined in combination with dispositions, some dispositions may be proved sufficient in the regressed model to explain more of the attitudes to change criterion variable. When change comes, it is most probable that they will be ready to change demonstrating a positive attitude towards changes. Yet, in future studies, factors such as those mentioned in McNabb and Sepic (1995), Cunningham et al. (2002) and Hanpachern et al. (1998) should be carefully examined in conjunction with dispositional traits, in order to assess how a person affected by his/her working environment can be ready toward changes.

It should be also mentioned that the existing literature in examining the effect of dispositions to change attitudes, examines only a general construct of attitudes to change and not to the tripartite view of attitudes to change. This study focuses on both the general construct of attitudes to change and the three aspects of it, firstly introduced by Dunham et al. (1989). Thus, it would be easier to examine the willingness to change and the dimensions constituting the general receptivity to change and extract useful conclusions. What seems a very interesting result of the analysis is the relation between behavioural tendency attitudes to change and resilience trait. This indicates that a person should have as a prerequisite the resilience trait so as to initiate change and be a change agent. Resilience should not be considered as the only personality factor that a person should have to be nominated as a change agent but just a sign for change agency.

The majority of research conducted in the field of organizational change concentrates on the examination of relations between dispositional characteristics and change reactions. This study went a step further to the existing literature and tried to insert as a second set of predictors some skills and competencies revealing change agent’s role in the organization. It also tried to combine the effects of both dispositions and skills to find a model satisfying the criteria needed for change agents.

The analysis concerning the skills as predictors showed that none of the skills significantly predict either the attitudes to change or the overall team performance with the exception of project management skills. These findings have great interest concerning the fact that scores in each skill for the participants were placed by observers. Further research should consider this important issue and the intervening effect of skills. A great amount of researchers have been occupied with skills of the change agent (Cripe, 1993; Hartley et al., 1997; Clarke and Meldrum, 1999; Doyle, 2002; Buchanan, 2003; Caldwell, 2003; Gill, 2003; Kendra and Taplin, 2004) but, very few provide research connection with dispositional traits and attitudes to change. Specifically, only Howell & Higgins (1990) made an attempt to investigate the personality characteristics, leadership behaviours and influence tactics of champions of change, based on questionnaires and interviewing in organizations and not in experimental design and observations as the current study employed. In another study, Scurrah et al. (1971) findings implied that perceptions of competence and legitimacy are crucial for the role of change agent. This study employed a similar methodology to the current type of methodology and found competencies to be fundamental to the role of change agents, contrary to current study’s results. Thus, we can say that the findings of the current study are not consistent with the conclusions of the provided literature, although skills in previous research are faced as independently assessed variables and not in
conjunction with dispositions. In other words, we cannot say whether the findings are inconsistent because of the nature of the methodology used in the current study. As a conclusion, although the research design and the nature of the study do not allow generalizations, skills are not placed in the list of priorities for a change agent to have but only dispositions are significantly contributing to this direction, at least according to the findings of the current study.

This study also explored the effect of both dispositions and skills on actual task performance. Task performance represents the performance of participants in a team activity (business game scenario). This analysis was performed because it should be ensured that apart from the appropriate behaviors for a change agent, change agents should also accomplish the task and the project assigned to them, as well. We expected that both dispositional characteristics and skills related to a change agent’s role should establish a positive relationship with task performance. The performance–dispositional traits relationship was previously established for locus of control by Spector (1982); core self evaluations by Erez and Judge (2001) and Judge et al. (1998); openness to experience by DeNeve and Cooper (1998) and Barrick and Mount (1991); and, finally, the resilience trait by Judge et al. (1998). The findings of the study are not consistent with previous research, as only project management skills are related to overall team performance. This probably may be explained by the fact that if someone wants to bring a project to an end successfully, she should at least possess the appropriate organizational and management competencies and technical expertise in the field of change.

The results of the current research can have some obvious implications and add value to business practices. Assessing the dispositional aspects of individual readiness to change and attitudes to change, contributes by creating profiles in order to select employees for those positions or assignments that inherently entail changes or employees who will become responsible for change implementation, such as change agents or OD managers. The most obvious way to improve selection is to implement the above results in a selection process. This means that using this set of criteria in a selection process context, improves the possibility of hiring an appropriate change agent, able to participate in a process of change in an organization. We also have to mention that, apart from personality traits, competencies and skills seem to have great contribution to business-related affairs. Skills, such as project management, for instance, presented significant and positive relationship with overall team performance. Although skills were not significantly related to attitudes to change, they seemed to be prerequisites in order that the task be achieved successfully. This imposes a serious implication for those who are searching to select change agents. Although the basic dispositional traits may be used as an initial or a further criterion in order for a change agent to be selected, skills could be used as meta-criterion in order to select people who are not only gathering fundamental characteristics but are supposed to accomplish results to future change projects.

It is worth mentioning that although the study brought some encouraging results and methodological strengths (that is, experimental design in conjunction with self-report questionnaires and observers’ ratings), it is still subject to several limitations. The limitations are referring to both the design of the study’s content and
the methodological issues rising. The first limitation worth mentioning is that only
a subset of the possible dispositional traits that may be characteristic of change
agents were included. As a subset, it was chosen on the basis of the most
popular and the most referred by the academic literature traits concerning
change attitudes and readiness to change. Thus, it is impossible to be sure that
only this subset of traits is enough to test the character and behaviour of potential
change agents and further research should expand the dispositions studied to deter-
mine whether they add incremental variance beyond those used in the current
study.

Another possible limitation of the experimental activity design was that inde-
pendent observers were chosen to score the change management skills of the par-
ticipants. Although this type of data collection seems to be an ideal situation for
this type of studies (Judge et al., 1998; Wanberg and Banas, 2000; Yousef,
2000), it may present some sort of biases, especially in our case where each obser-
ver assessed the skills of his/her assigned group independently of the other obser-
vers. This strategy, although very effective for avoiding problems with common
method variance, implied subjective biases regarding the way observers under-
stood the meaning of the elements to be scored. For example, although the defi-
nition of teamwork was already provided to the observers, they might have used
personal considerations of this term. Finally, the sample size constitutes by
itself a limitation, since it is relatively small for comparisons but it was kept
small due to time limitations. As a result, the majority of the analyses performed
showed no significance and even the ones that did, can not be trusted in advance.
Future research should ensure that the sample is adequately large so as to be rep-
resentative and allow better comparisons.

Concluding, the current study attempted to explore the individual dispositions
and skills required for effective change management, employing a business
game scenario. The results were generally unsupportive for the significance of dis-
positional traits and work-related skills and competencies, for the selection of
change agents, suggesting that we turn our focus of attention to other character-
istics that affect change agents’ successful performance.

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pp. 99–100.
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