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READY FOR CHANGES? THE INFLUENCE OF GENERAL SELF-EFFICACY AND RESISTANCE TO CHANGE ON MANAGERS' FUTURE COMPETENCE REQUIREMENTS

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ABSTRACT

With this study, we will test the interrelations between the psychological concept of self-efficacy of managers and its influences on the resistance to change. The results show that it makes a qualitative difference, if change in competences occurs in a positive or a negative direction and that there is a clear predisposition of managers concerning change. Both results have to be taken into account in designing changes processes.

KEY WORDS

competence management, self-efficacy, resistance to change

JEL CODES

M100, O100

1   INTRODUCTION

For more than a hundred years, the topic of what tasks a manger has to fulfil and what the manager of the future will look like has been much reflected on. While in earlier days the main emphasis was on the analysis of the job and functional aspects such as planning, coordinating and organising, management discourse changed drastically with the introduction of post-bureaucratic reforms and the rise of the competence movement (McClelland, 1973). Instead of the workplace, the focus is now on the persons themselves as well as their abili-ties, knowledge and skills. Subsequent studies proposed several competences managers should possess, including interacting with people, presenting, organizing and executing. Because of current trends such as globalisation and the increasing amalgamation of occupational and private life (Ford and Collinson, 2011), managers are furthermore expected to act effectively in unforeseeable and complex situations. In other words, managers should have a range of competences that enables them to act in a self-organised manner (Erpenbeck and von

Rosenstiel, 2003) – even in a rapidly changing business environment. As a direct consequence of these new changes, companies were more and more looking for "managers of the future, not of the present" (Woodruffe, 1993, p. 34).

However, despite their importance, future-oriented competences in competence research have been greatly neglected (e.g. Robinson et al., 2007). A main reason is that competence assessment methods such as the critical behaviour interview largely focused on a manger's past performance. Competence requirements were thus in the best case present-oriented and in the worst case derived from past events. Only recently, both past and future competences have been analysed to a greater extent (e.g. Campion et al., 2011; Mühlbacher, 2007). Scholars such as Robinson et al. (2007) proposed several methodological principles (e.g., including a time horizon) and more recent studies empirically examined the future significance of managerial competences required by healthcare executives and commercial kitchen chefs (e.g. Giousmpasoglou et al., 2016).

According to Woodruffe (1993), there are two options for looking into "the future": the focus of analysis is either on change competences, which are required in order to deal with unforeseeable situations, or on changing competences, which represent future competence requirements. The former group – competences of "changeability" (Woodruffe, 1993, p. 35) – has been extensively studied (e.g., Paton and McCalman, 2008) and often presented in the form of lists. On the other hand, previous works on "competency life cycles" (e.g., Sparrow and Boam, 1992) clearly differentiate between emerging and maturing competencies and point toward the changing nature of competences. Recent developments such as constantly changing requirements at work, high expectations from managers, and increasing competition (Tripathi and Agrawal, 2014) strengthen the demand for a better understanding of future competence requirements which are therefore the subject of this study.

Empirically, it can be shown that managers greatly differ in their competence requirements (e.g., Lakshminarayanan et al., 2016). Some

perceive an increasing demand for competences of a particular class, while others detect a fall. In other words, not all managers respond in the same way to the idea of changing competences (e.g., Boyatzis and Saatcioglu, 2008; Dierdorff et al., 2009). The question why managers see different requirements and what factors explain this difference in perception has not been addressed in the literature so far. Thus, this study aims at closing this research gap and at identifying potential predictors that explain the rise and fall in competence requirements.

It can be argued that the concept of the self is the starting point for every change process that affects a person's actions, habits or competences (Boyatzis, 2006; Taylor, 2006). Besides competence research, the psychology of the self hence is a theoretical basis for this study. Competences are seen as prerequisites for self-organised behaviour, which allow managers to act even in unforeseeable situations (Erpenbeck, 2011; Erpenbeck and von Rosenstiel, 2003). Knowledge of one's own self is often formulated in a so-called theory of the self which assumes that people aim for a better understanding for themselves and rely on their self-knowledge when making decisions (Oyserman et al., 2012). The best known such theory is the theory of cognitive dissonance (Festinger, 1957), which postulates that people generally strive to be consistent in their behaviour and act in line with their self-concept. In case of a discrepancy, on the other hand, people experience discomfort and a certain state of tension, also called dissonance. They are subsequently motivated to either change their attitude or behaviour in order to appear reasonable in their decisions.

A further important component is the dispositional perspective. It presumes that people have certain psychological predispositions towards changes (Holt et al., 2010). Accordingly, personal characteristics should play a crucial role in the perception of a change as a benefit or a threat (Vakola et al., 2013). More specifically, several authors argue that the perceived ability as well as a person's will to accept changes have a strong influence on how changes are dealt with (e.g. Holt et al., 2010). In the following study, the perceived ability is operationalised through

the use of the personality trait of general self-efficacy (Judge et al., 1998), which captures the generalized belief of individuals to possess the resources required to fulfil task demands (Chen et al., 2001). On the other hand, the willingness to accept changes is operationalised by means of a person's resistance to change (Oreg, 2003), which can be defined as a predisposed inclination of an individual to avoid change. Studies have shown that both personality traits are connected with how changes are dealt with (e.g. Judge et al., 1999; Oreg, 2006). For this reason, these were then tested as predictors of rising or falling competence requirements.

The research model suggested can thus be seen as an answer to the criticism of compe-tence research to neglect future-oriented compe-tences. By including not only current and future competences, but also potential predictors of competence requirements, the study addition-ally aims to find an answer to the question of what factors predict a rise or fall in competence requirements. Competence research, the theory of the self, and the dispositional perspective of change management thus build the theoretical foundation to answer the following research question: what influence do personality traits – in the form of general self-efficacy and resistance to change – have on the increase and decrease in competence requirements?

2   THEORETICAL BACKGROUND

The theoretical background of this study is based on competence research, the theory of the self and the dispositional perspective in change management.

2.1   Competence Research

The most important objectives of occupational competence development are the establishment and promotion of professional behavioural com-petence. The main focus is put on the in-tegration of cognitive, emotional-motivational, volitional and social aspects of human be-haviour in work situations (Heyse, 1997, p. 6). An early differentiation was provided by Jacobs (1989, p. 36), who distinguishes between "hard and soft competencies". Hard competences refer to, for instance, analytical and organisational abilities, while creativity and sensitivity are part of soft competences. From this, Jacobs derives the assumption that hard competences result in observable behaviour and, at the same time, the invisible but controlling soft competences are underlying elements.

This distinction was later differentiated into four types of competence, which meet both theoretical and pragmatic requirements (Heyse, 1997, p. 6). A concise overview of these four competence classes can be found in Sonntag and Schaper (1999, p. 411ff). They include professional competence, method competence, social competence as well as self- and personal competence. This classification was then re-worked itself. In more recent classifications, par-ticularly professional and method competences have been fused, due to their similarities and a desired construction of a general competence model, while self- and personal competence are sub-divided further. The aim is to enable a differentiated observation of dispositions and self-organised behaviour.

The concept by Erpenbeck and von Rosen-stiel (2003) – though working on a more abstract level – provides a current classifica-tion. It also comprises four general competence classes, but their differentiation is based on the idea that mental or physical behaviour always represents subject-object or subject-subject relationships. Self-organised behaviour can (1) reflexively relate to the acting person itself or (2) relate to the professional-methodical recognition and change of the concrete environ-ment. It can be (3) oriented towards the social environment and thus to other persons and groups or it (4) more closely characterises the activity and willingness component of the actor (Erpenbeck and von Rosenstiel, 2003, p. XV). From this, generally the following competence

classes can be derived (Erpenbeck and von Rosenstiel, 2003, p. XVI): (1) personal competences, (2) professional-methodical competences, (3) social-communicative competences and (4) activity- and implementation-oriented competences.

Although this classification is a general taxonomy, the authors themselves remark that allocating individual and sub-competences to these classes might lead to problems. This holds particularly true for the difficult demarcation of the class of activity- and implementation-oriented competences, which in fact only refers a person's ability to implement – and thus a combination of his or her professional-methodical and social-communicative competences. Further problems might arise in allocating traits (such as ambition, diligence or persistence) that might belong to either the first or the fourth class (Erpenbeck and von Rosenstiel, 2003, p. XVI).

Therefore, this study mainly focuses on the general differentiation between professional and method competences on the one hand and social competences on the other. Although the state of the art is reduced, this makes a connection to the central leader-manager differentiation possible (Bennis, 1989). According to this, "managers" are executives, who put an emphasis on control, prefer orderly proceedings and are rather professionally competent. "Leaders", in contrast, think for the long term, want to convey a vision and have social-communicative competences (Bennis, 1989).

2.2 Theory of the Self

As it can be argued that individuals cannot evaluate their own competences and future competence requirements without taking recourse to their own self-concept (Crocker and Canevello, 2012, p. 263), the self plays an important part. A person's self influences all their behaviour, habits and competences and can be interpreted both as the starting point (e.g. Boyatzis, 2006, p. 613; Taylor, 2006) and the subject of change processes. In addition, the self, in the form of self-organisation theory, is closely connected with competence research

(Erpenbeck and Heyse, 1999; Erpenbeck and von Rosenstiel, 2003). Psychological theories of the self can therefore bring new insights regarding rising and falling competence requirements.

The theory of cognitive dissonance (Festinger, 1957) is regarded as one of the most influential theories of the self (e.g. Nail et al., 2004) and postulates that people strive to act consistently and to make rational decisions vis-à-vis the outside world. If there is a discrepancy between one's own values (e.g. healthy lifestyle), cognition (e.g. seeing oneself as a sportsperson) and behaviour (e.g. smoking), individuals experience an inner tension, also called dissonance. The greater the discrepancy, the stronger the desire to release this tension. The self-affirmation theory (Steele, 1988), a variant of dissonance theory, assumes that people generally are motivated to maintain a positive image of self-integrity. Thoughts, events or behaviour that threaten this image of self-integrity are perceived as a psychological threat (Cohen and Sherman, 2014).

In order to counter this threat, people tend to emphasise their individual strengths and thus to newly define success. An important mechanism is to have access to several existing identities and therefore have different sources of integrity available (Steele, 1988). By means of self-affirmation it is thus possible to compensate for perceived mistakes by being successful in other areas relevant for the self (e.g. a specific competence, a certain hobby). In other words, self-affirmation allows for a constant re-interpretation of events that are important to maintain one's own self-image by placing the focus of attention on successful characteristics.

2.3 Dispositional Perspective in Change Management

As rising and falling competence requirements can be perceived as either a positive or negative change by the managers (e.g. Bouckenooghe, 2010), the research field of change management also is a theoretical foundation for this study. The dispositional perspective in change management is particularly important in this context, as a number of studies have pointed

out the influence of personality traits in the change process (e.g. Herold et al., 2007). Judge et al. (1999), for instance, identified a total of seven personality traits (e.g. general self-efficacy, locus of control) that are related to tackling changes. The dispositional perspective thus assumes that individuals are predisposed to react to changes in a certain manner and regard these as either threatening or useful (e.g. Oreg et al., 2011; Vakola et al., 2013). It is further argued that the willingness to change requires both the will to accept changes and a certain degree of self-confidence or self-efficacy to successfully cope with the changes to come.

General self-efficacy was conceived on the basis of Bandura's (1977) concept of self-efficacy, which describes a person's conviction to be able to deal successfully with even difficult situations in their own right (Łuszczyńska et al., 2005). Originally conceived as a situation-specific construct, self-efficacy includes a perceived feeling of control with which people can change their behaviour. Also empirically, a connection between persons' self-efficacy and their willingness to accept changes has been found (e.g. Amiot et al., 2006).

In order to record the influence of how convinced people are of their own self-efficacy irrespective of the situation, Bandura's original concept was conceived as a personality trait (Judge et al., 1998). The concept of general self-efficacy developed from this describes the personal assessment of one's own competences to tackle challenges in various situations. Several studies have shown that people evaluate changes depending on their general self-efficacy (e.g. Hornung and Rousseau, 2007). One explanation for this connection is the existence of a self-reinforcing mechanism (Judge et al., 1998). Persons with a high general self-efficacy, for example, increase their chances for success, which in turn reinforces them in their competences. On the other hand, it is argued that a high degree of general self-efficacy in different situations tempts people into acting proactively and flexibly. For these reasons, it is presumed that general self-efficacy has

an influence on rising and falling competence requirements:

H$_1$: *General self-efficacy influences rising and falling competence requirements.*

The component of willingness is operationalised using the concept of resistance to change. Research into the question why certain people are negatively disposed towards changes and actively resist them goes back all the way to the year 1948, when Coch and French (1948) analysed the phenomenon empirically. Over the years, a multitude of definitions emerged with a common negative focus on changes (Bouckenooghe, 2010). This traditional point of view, which generally related changes to stress, was more and more criticised at the beginning of the 2000s (e.g. Piderit, 2000). The argument was that the majority of studies on this topic relied too much on the behavioural level (what do people do to resist changes) and, in turn, the cognitive (what do people think of changes) and emotional (what do people feel in view of changes) components were neglected.

Responding to this criticism, Oreg (2003) has suggested conceptualising resistance to change as a personality trait that includes cognitive, affective and behavioural elements. Resistance to change in this sense is described as a pre-disposed tendency to avoid changes. A person with a high level of resistance to change thus perceives changes as rather negative, more frequently associates them with negative feelings and generally integrates fewer changes in his or her daily life. In a comprehensive survey article on the subject of reactions to changes covering a period of 60 years, Oreg et al. (2011) describe resistance to change as a predictor of changes. Similarly, several authors argue that resistance to change is one of the main reasons for differences in people's willingness to change (e.g., Oreg and Sverdlik, 2011). For these reasons it is assumed that resistance to change also has an influence on rising and falling competence requirements:

H$_2$: *Resistance to change influences rising and falling competence requirements.*

3   METHODOLOGY AND DATA

Constructs that cannot be measured directly – such as personality traits or competence requirements – often manifest in a culture-specific form (e.g., Fischer and Schwartz, 2011). As a review of several guidelines for cross-cultural adaptation "could not bring out a consensus" (Epstein et al., 2015, p. 435) on how to limit possible cultural biases, the following study was conducted in a culturally diverse environment: The Grand Duchy of Luxembourg. As a founder member of the European Economic Community (EEC), the tranquil Grand Duchy is the seat of several EU institutions (e.g. European Court of Justice, European Court of Auditors, European Investment Bank) and is seen, besides Brussels and Strasbourg, as an EU capital. Its international orientation is also reflected in its population figures: in 2016, the percentage of foreigners living in Luxembourg was 46.71% (STATEC, 2016). Resident foreigners also account for 71% of the working population (Luxembourg for Finance and Luxembourg for Business, 2015). The more than 170 nationalities, numerous commuters and the phenomenon of multilingualism further characterise Luxembourg's cultural diversity. Moreover, with a growth rate consistently above the EU average and a public debt at only 23.20% of the gross domestic product (Luxembourg for Finance and Luxembourg for Business, 2015), Luxembourg will remain attractive for foreigners from all over the world. For this reason, Luxembourg lends itself for a study of competence requirements, which are also needed internationally. The empirical survey was thus based on a self-selective sample of 274 Luxembourgish managers. The following method section provides more detail on the sample of participants, the variables collected, and data collection and analysis.

3.1   Sample

Data were collected between June 2015 and February 2016. In this stage, a total of 2,226 managers working in various sectors in Luxembourg with at least one direct employee were contacted. Of these, 274 managers replied, which is a response rate of 12.31%. According to Tabachnick and Fidell (2007) as well as Field (2013), this is a sufficient sample to calculate a robust regression model. During data collection, the participants were asked to state whether they were active in top, upper or middle management. The sample turned out to include 104 participants (37.96%) from top management, 75 (27.37%) from upper management, and 95 (34.67%) from middle management.

Of the 274 managers, 39 were women (14.23%) and 235 men (85.77%). The average age was 49 years (SD = 7.15), with 24 managers between 30 and 39 years (8.76), 100 between 40 and 49 years (36.50%), 135 between 50 and 59 (49.27%) and 15 older than 60 years (5.47%). In the sample, altogether 17 nationalities were represented, with a majority of the managers stating to be Luxembourg nationals (48.18%). Other large groups of managers were Belgian (16.79%), French (16.42%) and German nationals (8.03%). The sample thus reflects the multicultural environment of Luxembourg and underlines the influence of cross-border workers (Thewes, 2008). When asked for their mother tongue, most managers replied Luxembourgish (44.53%), French (34.31%) and German (10.58%). Regarding their education, 167 managers stated to have a master's degree (60.95%) and 54 a bachelor's degree (19.71%). A further 36 managers stated to have finished high school (13.14%) and 17 had a Ph.D. (6.20%). The majority of the managers studied business and economics (33.21%), followed by IT (25.91%) and engineering (24.09%).

On average, the managers participating had 15 years of work experience (SD = 8.02). They worked in organisations with an average of 727 employees (SD = 1010.27), with 71 managers (25.91%) working in small enterprises (1 to 49 employees), 99 (36.13%) in medium enterprises (50 to 499 employees) and 104 (37.96%) in large enterprises (more than 500 employees). The majority of the managers stated to work in Finance (34.31%), followed by telecommunications (25.91%) and the public sector (8.76%).

3.2 Variables Collected

In this section, all variables (criterion variables, predictors and demographic variables) are explained that were collected for testing the hypotheses. Because of Luxembourg's multicultural environment, where more than 170 nationalities can be found (Luxembourg for Finance and Luxembourg for Business, 2015), all measuring instruments were available in German, English and French.

3.2.1 Rising and falling competence requirements

The rising and falling competence requirements were calculated for the classes of professional-methodical and social-communicative competences. In a first step, the participants were asked to answer the following open questions: what competences do you need in your position today in order to meet the current requirements? What competences will be necessary in your position in the future to successfully meet the demand for adaptation in the next 3–5 years? In addition, participants were to weight the importance of the named competences using a percentage rate so that the sum adds up to 100%. The participants' answers represent competence manifestations (e.g. learning Chinese), which were allocated to competences (e.g. multilingualism) using a coding scheme (Mühlbacher, 2007), which in turn were grouped into competence classes (e.g. social-communicative). In order to address the basal leader-manager differentiation (Toor, 2011) properly, this study mainly focuses on the professional-methodical and social-communicative competences.

Subsequently, the competence requirements were determined through the difference between current and future competences. For calculating rising demand for professional-methodical or social-communicative competences, exclusively positive values (0 to 100) were then used, while for calculating falling demand only negative values (−100 to 0) were taken into consideration. The advantage of this open approach is that participants were able to answer freely and thus sheltered from potential interference through pre-formulated answering options. Due to the open approach, a reliability analysis by means of Cronbach's Alpha was not possible. Descriptive statistics showed the following means and standard deviations for the criterion variables:

- rising demand for professional-methodical competences: M = 16.71; SD = 17.36;
- falling demand for professional-methodical competences: M = −21.87; SD = 20.85;
- rising demand for social-communicative competences: M = 7.15; SD = 10.52;
- falling demand for social-communicative competences: M = −10.47; SD = 12.59.

3.2.2 General self-efficacy

In order to measure general self-efficacy, a questionnaire designed by Schwarzer and Jerusalem (1995) was used. This is a well-established measuring instrument with 10 items, which had already been tested in several countries and cultural spheres (e.g. Scholz et al., 2002). The items include statements relating to the successful accomplishment of general tasks, such as "If a problem approaches, I usually have several ideas how to solve it" or "Whatever happens, I will manage". It is a 4-point Likert scale with a Cronbach Alpha of $\alpha = 0.85$, which is satisfactory (Bortz and Döring, 2006). The participants achieved a mean of 3.36 (SD = 0.38) and the test values were in a range from 2.40 to 4. The questionnaire had already been translated into German (Schwarzer and Jerusalem, 1999) and French (Dumont et al., 2000).

3.2.3 Resistance to change

In order to measure resistance to change, a questionnaire designed by Oreg (2003) was used. This is a well-established measuring instrument with 17 items, which had been tested in a large-scale study in more than 19 countries (e.g., Oreg et al., 2008). The items include statements on the perception of changes such as "I generally think changes are negative" or "If I am informed about changes to plans, I feel more tension". It is a 6-point Likert scale with a Cronbach Alpha of $\alpha = 0.81$, which is satisfactory (Bortz and Döring, 2006). The participants achieved a mean of 2.71 (SD = 0.52) and the test values were in a range from 1.35 to 4. The questionnaire had already been

translated into German (Oreg et al., 2008). For translation into French, an experienced translator was hired.

3.2.4 Demographic variables

Data on the industry (e.g. finance, public sector) and relating to the number of employees in the organisation were recorded. As in other studies (e.g. Schminke et al., 2002), the figures given on the number of employees were log-transformed in order to reduce skewness. Moreover, the participants' age, sex, nationality, mother tongue, educational achievement, field of studies, position in the organisation and current line of work were recorded.

3.3 Data Collection and Analysis

The data were collected by means of an online survey, which is a typical approach for quantitative research designs (Frippiat and Marquis, 2010, p. 285). The survey was compiled using LimeSurvey 1.92 (`www.limesurvey.org`), an open-source survey tool, and included the two open questions for recording competences, the two standardised measuring instruments to record general self-efficacy and resistance to change, as well as the demographic variables. The questionnaire was offered in German, English and French and it took 15–20 minutes to fill in. After completion, the data were imported into an Excel file and analysed using IBM SPSS Statistics 20.

For testing the hypotheses, multiple regression models (Cohen et al., 2013) were calculated. The influence of the demographic variables of age, sex, educational achievement and experience as a manager was controlled. As Type I and Type II errors become more probable if certain requirements of regression analyses are violated (e.g. Williams et al., 2013), these were tested in the present study. As all requirements were met (e.g. suitable sample size, outliers, multicollinearity), the multiple regression models were calculated without problems.

4 EMPIRICAL RESULTS

The results section consists of two parts. In a first step, the results of the coding procedure (Mühlbacher, 2007) will be displayed in the form of a competence profile encompassing the identified competences. Then, the result of the multiple regression model is presented, by means of which the influence of personality traits on falling and rising competence requirements was tested.

4.1 Professional-methodical and Social-communicative Competences

The participants in the study were asked in two open questions to list competences that are on the one hand relevant for their current job and on the other hand will become so in the future. The participants' answers were then allocated to a total of 14 professional-methodical and 9 social-communicative competences. The class of professional-methodical competences includes solution-oriented and job-related behaviours and abilities. In Tab. 1, the means of all current and future professional-methodical competences are shown.

The class of social-communicative competences refers to abilities that are required for social interaction. In Tab. 2, the means of all current and future social-communicative competences are shown.

Calculating the difference between current and future professional-methodical competences gives the individual demand for professional-methodical competences for each participant. For calculating the individual rising demand for professional-methodical competences, only positive values (0 to 65) are taken into account. Similarly, for calculating the individual falling demand for professional-methodical competences, only the negative values (−85 to 0) are used. The averaged values then become the criterion variables of the rising demand for professional-methodical

competences (M = 16.71; SD = 17.36) and the falling demand for professional-methodical competences (M = −21.87; SD = 20.85). For the social-communicative competence class the rising (M = 7.15; SD = 10.52) and falling (M = −10.47; SD = 12.59) demand was calculated in the same manner.

4.2   Testing the Hypotheses

In this part of the results section, all the main results that are required to find an answer to the hypotheses are listed. The correlation table (Tab. 5 in the annex) contains all variables relevant to the study and points out any significant connections. A significantly negative correlation can be found between the rising demand for professional-methodical competences and the falling demand for social-communicative competences ($r = −0.42$, $p < 0.01$). At the same time, it can be seen that a rising demand for social-communicative competences shows a significantly negative correlation with the falling demand for professional-methodical competences ($r = −0.38$, $p < 0.01$). Both findings suggest that managers who reported a high demand for change in one of the two competence classes also perceived a high demand for change in the other.

It also becomes apparent that general self-efficacy positively correlates with a falling demand for professional-methodical competences ($r = 0.16$, $p < 0.05$). This proves a connection between a personality trait and the competence requirements. As expected, there is furthermore a negative correlation between the two personality traits general self-efficacy and resistance to change ($r = 0.39$, $p < 0.01$), which has also been detected in earlier studies (e.g. Armenakis et al., 1993). As regards the demographic variables, it can be seen that age is negatively correlated with general self-efficacy ($r = −0.19$, $p < 0.01$). Thus, the younger a manager is, the higher his degree of general self-efficacy tends to be.

Tab. 1: Professional-methodical competences identified

Competences	Time	M	SD
Accounting / Financial management	Current	5.43	11.01
	Future	2.93	9.04
Analytical thinking	Current	3.11	8.48
	Future	1.82	6.72
Corporate development	Current	2.86	7.34
	Future	2.95	8.13
Change management	Current	2.23	7.13
	Future	4.39	12.24
Decision-making ability	Current	1.80	6.40
	Future	1.35	5.75
Personnel management	Current	1.26	5.44
	Future	1.13	4.82
IT knowledge	Current	6.88	15.58
	Future	8.47	18.13
Legal competence	Current	2.61	8.70
	Future	1.86	7.41
Marketing / Sales	Current	2.95	8.01
	Future	2.97	9.69
Professional knowledge	Current	4.08	10.84
	Future	2.47	10.06
Project management	Current	2.17	6.29
	Future	1.24	5.99
Risk management	Current	1.03	3.99
	Future	0.55	3.56
Strategic management	Current	5.32	9.74
	Future	6.52	13.35
Technical understanding	Current	3.45	9.48
	Future	3.03	10.79

Tab. 2: Social-communicative competences identified

Competences	Time	M	SD
Communication	Current	3.46	7.29
	Future	3.13	8.15
Conflict management	Current	0.89	3.82
	Future	0.95	4.69
Customer relationship management	Current	1.81	6.53
	Future	1.93	7.59
Active listening	Current	1.05	3.98
	Future	0.53	3.19
Multilingualism	Current	5.52	9.23
	Future	2.76	6.95
Negotiating skills	Current	1.81	6.11
	Future	1.65	6.45
Network skills	Current	1.73	5.99
	Future	1.66	6.42
Teamwork	Current	1.00	4.91
	Future	0.90	4.20
Reporting	Current	1.15	4.39
	Future	0.76	4.95

As expected, the age of the managers correlates positively with their experience ($r = 0.67$, $p < 0.01$). In addition, the number of employees in the organisation shows a positive correlation with the falling demand for social-communicative competences ($r = 0.16$, $p < 0.05$) and a negative correlation with the rising demand for social-communicative competences ($r = -0.22$, $p < 0.01$). In larger organisations, therefore, social-communicative competences were rated as less important. Moreover, a negative correlation between the number of employees and general self-efficacy ($r = -0.15$, $p < 0.05$) was detected.

Tab. 3: Multiple regression model to predict rising and falling demand for professional-methodical competences

Predictors	Rising demand for professional-methodical competences[a]			Falling demand for professional-methodical competences[b]		
	β	R^2	ΔR^2	β	R^2	ΔR^2
Step 1:		0.01	0.01		0.03	0.03
Age in years	−0.11			−0.16		
Sex	−0.01			0.04		
Educational achievement	−0.06			−0.07		
Experience as a manager in years	0.12			−0.03		
Step 2:		0.01	0.00		0.09	0.06**
Age in years	−0.10			−0.12		
Sex	−0.01			0.07		
Educational achievement	−0.06			−0.11		
Experience as a manager in years	0.12			−0.08		
General self-efficacy	0.02			0.26**		
Resistance to change	0.01			0.21*		

Notes: [a]$n = 150$, [b]$n = 161$, *$p < 0.05$, **$p < 0.01$.

Calculating the multiple regression model showed that general self-efficacy ($\beta = 0.26$, $p < 0.01$) and resistance to change ($\beta = 0.21$, $p < 0.05$), with an R^2 of 0.09, are significant predictors of the falling demand for professional-methodical competences (Tab. 3). In contrast, it can be seen that the rising demand for professional-methodical competences

cannot significantly be predicted by either general self-efficacy ($\beta = 0.02$, $p = 0.88$) or resistance to change ($\beta = 0.01$, $p = 0.90$). The control variables of age, sex, educational achievement and experience as a manager do not play any role at all.

Tab. 4: Multiple regression model to predict the rising and falling demand for social-communicative competences

Predictors	Rising demand for social-communicative competences[a]			Falling demand for social-communicative competences[b]		
	β	R^2	ΔR^2	β	R^2	ΔR^2
Step 1:		0.04	0.04		0.01	0.01
Age in years	−0.16			0.02		
Sex	−0.09			0.05		
Educational achievement	−0.09			0.10		
Experience as a manager in years	0.21			−0.03		
Step 2:		0.04	0.01		0.05	0.04*
Age in years	−0.19			−0.03		
Sex	−0.11			0.06		
Educational achievement	−0.09			0.11		
Experience as a manager in years	0.23*			−0.01		
General self-efficacy	−0.08			−0.20*		
Resistance to change	−0.07			−0.19*		

Notes: [a]$n = 155$, [b]$n = 200$, *$p < 0.05$.

A similar result emerged when calculating the regression model to predict rising and falling demand for social-communicative competences (Tab. 4). Again, it becomes apparent that general self-efficacy ($\beta = -0.20$, $p < 0.05$) and resistance to change ($\beta = -0.19$, $p < 0.05$), with an R^2 of 0.05, are significant predictors of the falling demand for social-communicative competences. In contrast, it can be seen that the rising demand for social-communicative competences cannot significantly be predicted by either general self-efficacy ($\beta = -0.08$, $p = 0.37$) or resistance to change ($\beta = -0.07$, $p = 0.41$). Only experience as a manager predicts the rising demand for social-communicative

competences ($\beta = 0.23$, $p < 0.05$). A possible explanation might be that managers with increasing work experience are more likely to be found in top or upper management and in this position have to communicate with a larger number of stakeholders. The other control variables – age, sex, and educational achievement – remained immaterial.

It thus becomes apparent that both in the case of professional-methodical and social-

communicative competences it is falling competence requirements that are predicted by the two personality traits. This suggests that the two changes here are very different, with different underlying dispositions, and the quality of the change therefore plays an important part. The falling demand for professional-methodical and social-communicative competences is in addition influenced by the exact opposite form of general self-efficacy and resistance to change.

5   DISCUSSION

It was the aim of this study to identify predictors of rising and falling demand for professional-methodical and social-communicative competences – especially against the background of the much-used leader-manager differentiation. Based on the literature, particularly the influence of two personality traits, general self-efficacy and resistance to change, was analysed. The results of the multiple regression models have shown that the two personality traits predict the competence requirements, but always only falling and not rising demand for professional-methodical and social-communicative competences. Therefore, hypotheses 1 and 2 were only confirmed for falling competence requirements. Furthermore, it was shown that the predictors influenced the falling demand for the two competence classes in exactly opposite directions. On the one hand, executives (= leaders) with a high level of general self-efficacy and resistance to change perceive a falling demand for professional-methodical competences. On the other hand, executives (= managers) with a low level of general self-efficacy and resistance to change report falling demand for social-communicative competences.

As falling and rising competence requirements rest on different personality traits, it can be argued that there are two different forms or types of change connected to two different change personalities, leaders and managers (Yukl and Lepsinger, 2005, p. 361). According to this, fundamental differences between managers and leaders can be found deep in

their psyche or personality (Zaleznik, 1977). This underlines the complexity of the many-faceted phenomenon of "change", much covered in the literature, which the people involved can perceive very differently depending on very different characteristics. Caldwell et al. (2004), for instance, in their study discuss the importance of the extent of changes and whether these are to be interpreted as useful or threatening. Compared to a change in small steps, a massive change has a much greater potential to disturb the sensitive balance between the requirements and one's own competences. The expected risks (e.g. loss of control) compared to the desired advantages of a change (e.g. better chances in the labour market) thus reflect a negative and a positive focus (Oreg et al., 2011).

Rising and falling competence requirements can also be evaluated according to different characteristics. This indicates that the quality of changes is very important and that people contemplate what consequences change might have for them (Brockner and Wiesenfeld, 1996). Assessing changes such as the future competence requirements can have both work-related (e.g. for work performance or behaviour) and personal consequences (e.g. for personal development or health) (an overview of potential consequences can be found in Oreg et al., 2011).

How changes are perceived is hence a very subjective assessment and strongly depends on one's own self-concept. Some authors even argue that the self-concept is always involved when people assess their own competences or a future scenario (Crocker and Canevello,

2012). In order to be able to interpret one's own environment better, people take recourse to their experiences and knowledge about themselves, which are often formulated in a theory of the self (Oyserman et al., 2012). As the variables collected are self-appraisals and therefore cognitive variables, the theory of cognitive dissonance (Festinger, 1957), with its focus on cognitive aspects of the self, and particularly the self-affirmation theory (Steele, 1988) can be used for interpreting the results.

If a manager has the impression that his or her current competences strongly diverge from the competences required in the future, this can result in cognitive dissonance. In this specific case, this implies a departure from professional-methodical competences of leaders (Lunenburg, 2011), who, although they are trying to break new ground, run the risk of getting lost in unknown territory due to a lack of pertinent knowledge. On the other hand, managers unfortunately often deal with crises by perceivably reducing the social-communicative component (Daft, 2014), which results in additional uncertainty and disorientation of the employees. A certain change, such as rising or falling competence requirements and their consequences, can so be perceived as negative, damaging or threatening, depending on the extent of the cognitive dissonance produced. The theory of cognitive dissonance, however, also postulates that people do not simply passively remain in a state of cognitive dissonance, but attempt to resolve it (Silvia and Gendolla, 2001). Managers

that assess their own competences as unsuitable to tackle future challenges are therefore eager to maintain a positive self-image and to reduce the dissonance they feel (Nail et al., 2004).

Self-affirmation is a mechanism to reduce dissonance which is intended to re-interpret changes that otherwise are a psychological threat assailing a person's identity (Cohen and Sherman, 2014). Reporting future competences that do not match his or her own would endanger the self-image of an effective manager. In order to protect themselves, it is therefore conceivable that managers who excel in professional-methodical competences see a falling demand for social-communicative competences. By focusing on one's own existing strengths, self-affirmation thus acts as a buffer against a potential threat to the self-image. By explicitly devaluing a certain competence class (falling competence requirements), managers are able to newly define success and orientate this towards their own strengths. Consequently, managers who have problems in communicating with clients will possibly rather emphasise their professional competences in order to compensate for this perceived weakness. This perceived inconsistency is trivialised (Wakslak and Trope, 2009) by explicitly devaluating a certain competence class and so separating the threat from the self-image. Rising and falling competence requirements can thus be interpreted as the result of a self-affirmation technique with the aim to reduce dissonance.

6   CONCLUSION AND OUTLOOK

This paper combines competence research with psychological literature and adds further insights into future competence requirements. The insight that personality traits, which are also reflected in the self-selected role perception, are connected with the assessment of competence requirements, however, also has several practical implications. First, organizations have a strong interest in accurately identifying competences that enable their executives to be successful in the future and act in a

self-organised manner, even in unforeseeable situations. A comprehensive competence management system often serves as the "basis for effective recruitment, selection, and development of high-performing managers and employees" (Bücker and Poutsma, 2010, p. 832). However, as the findings of this work show, factors such as personality traits might affect the accuracy of competence assessments. Especially as the critical incident technique, which aims to identify critical situations in the past from which

competences can be inferred, is still one of the most commonly employed approaches to analyse competences. To create competence profiles for core staff employees, managers, experts and project managers (in case of a professional and project management career path) HR or Learning and Development experts are thus often interviewing a handful of higher ranked managers. However, the perception of managers regarding their competence requirements can be distorted in the way that their level of general self-efficacy and resistance to change result in a devaluation of either professional-methodical or social-communicative competences. Personality traits should thus be taken into account when assessing competences by selecting a variety of different managers. As an example, to create the competence profile of a vice president, HR should not only conduct interviews with extrovert, HR-friendly vice presidents but also with the more reserved ones. In this sense, it can be argued that the inclusion of personality traits may increase the objectivity of competence assessment methods.

Second, the findings underpinning the manager-leader distinction in terms of psychological dispositions and preferred competence classes can be interesting for the design of a career path model and appropriate training measures. As the role of a leader includes challenging the status quo, innovating, and focusing on people and is thus fundamentally different from the role of a manager who relies on control, creates rules, and uses formal authority (Bennis, 1989), it could be argued that HR experts should design separate career paths. In the career path for managers, participants receive the opportunity to further develop competences such as time management, project management, and organizational skills. Instead, the career path for leaders could include topics such as strategic thinking and transformational leadership style. As both roles incorporate opposite responsibilities and skills they could act as a team with complementary competences.

As a third practical implication, the findings reflect the difficulty to identify so called "change leaders". Some scholars argue that organizations, which are planning to undergo change,

should rely on dispositional factors such as resistance to change in order to create readiness profiles and identify change agents (Vakola, 2013). However, the current study showed that, independently of their level of resistance to change, both – leaders and managers – perceived competence requirements to change. The quality of the perceived change (falling demand of social-communicative or methodical-professional competences) played an important role to them. On the other hand, the conclusion that executives with a high level of resistance to change are not perceiving any change would be incorrect. Therefore, individual readiness profiles based on dispositional traits should not be used as a decision making tool or basis for a training programme.

The present study has identified two predictors of future competence requirements and in several respects shows the limits of rational decision-making. On the one hand, it was shown that the quality of change plays an essential part, as rising or falling competence requirements are determined by different personality traits. The subjective assessment of risks and advantages of changes, as well as their expected consequences, are taken into account in decision-making, as is people's own self-concept. Self-affirmation in the form of explicit devaluation of certain competence classes is therefore used to release the tension induced by cognitive dissonance. More importantly, the present study has discovered a new path for future research by demonstrating that the perception of which competences will be relevant in the future does not exist in a "void", but is partly based on psychological predispositions.

Future studies could test the influence of additional personality traits, such as internal locus of control (Judge et al., 1998), as predictors of competence requirements. Another objective of further research might be to identify specific predictors of rising competence requirements. Using a qualitative research design, it could be analysed what exactly the difference between the assessment of rising and falling competence requirements is and which main characteristics (Oreg et al., 2011) play the most important part.

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8   ANNEX

Tab. 5: Descriptive statistics and intercorrelations of study variables

Variables	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Fd. p-m	−21.87	20.85	1								
2. Rd. p-m	16.71	17.36	a	1							
3. Fd. s-c	−10.47	12.59	0.15	−0.42**	1						
4. Rd. s-c	7.15	10.52	−0.38**	0.13	a	1					
5. GS	3.36	0.38	0.16*	0.03	−0.11	0.00	1				
6. RtC	2.71	0.52	0.09	0.00	−0.10	−0.05	−0.39**	1			
7. Age	49.30	6.99	−0.15	−0.04	0.00	−0.04	−0.19**	0.05	1		
8. Exp	15.36	7.87	−0.13	0.04	0.00	0.07	−0.04	−0.02	0.67**	1	
9. Emp	5.26	2.02	0.10	−0.10	0.16*	−0.22**	−0.15*	0.11	−0.03	−0.12	1

Notes: $*p < 0.05$, $**p < 0.01$, a = can not be computed, Fd. p-m = Falling demand for professional-methodical competences, Rd. p-m = Rising demand for professional-methodical competences, Fd. s-c = Falling demand for social-communicative competences, Rd. s-c = Rising demand for social-communicative competences, GS = General self-efficacy, RtC = Resistance to change, Age = Age in years, Exp = Experience as a manager in years, Emp = Number of employees (log-transformed).

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