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Revisiting the Career Anchor Model: A Proposition and an Empirical Investigation of a New Model of Career Value Structure

Repenser le modèle des ancres de carrière : proposition et test empirique d'un nouveau modèle de structuration des valeurs de carrière

Revisitando el modelo de anclaje de carrera: Propuesta y estudio empírico de un nuevo modelo de estructuración de valores de carrera

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Résumé de l'article

La présente étude propose un modèle original de valeurs de carrière qui est organisé selon une logique circulaire. Cette nouvelle structuration des valeurs de carrière se compose de quatre quadrants qui s'opposent deux à deux (une représentation bureaucratique de soi contre une représentation protéenne de soi et une représentation carriériste de soi contre une représentation sociale de soi). Contrairement au modèle de Schein qui repose sur la dominance d'une seule ancre de carrière, le modèle permet d'organiser les ancres de carrière selon leur attirance et leur répulsion, ce qui peut d'expliquer l'existence de plusieurs ancres dominantes.

À partir d'un échantillon composé de 240 employés et de 155 cadres issus du secteur de la santé, un nouvel instrument de mesure des valeurs de carrière a été validé. Quatre quadrants ont émergé de l'analyse multidimensionnelle. Les hypothèses relatives aux liens entre les quadrants de valeurs de carrière et les ancres de carrière ont été, en grande partie, confortées par l'analyse de régression multiple. Par exemple, l'ancre de gestion managériale est reliée significativement à la représentation carriériste de soi alors que l'ancre de service est associée significativement à la représentation sociale de soi. L'étude a également conforté des hypothèses reliant les quadrants à d'autres variables comme le collectivisme et les comportements proactifs. Ainsi, le collectivisme est significativement relié à la représentation sociale de soi alors que les comportements proactifs le sont à la représentation protéenne de soi. Non seulement le modèle de structuration a-t-il pu être vérifié empiriquement, mais la validité de construit du nouvel instrument a été aussi démontrée. L'étude contribue également à clarifier plusieurs problèmes reliés aux ancres de carrière comme la structuration des ancres de carrière ou l'ambiguïté de certains indicateurs de mesure des ancres de carrière.

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Revisiting the Career Anchor Model: A Proposition and an Empirical Investigation of a New Model of Career Value Structure

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In contrast with Schein's theory, which presumes a single dominant career anchor, this study proposes an original model based on a career value structure that could explain why some individuals have several dominant career anchors. Career values, which are organized according a circular logic, are grouped into four large clusters of values which are opposed by pairs: bureaucratic self-concept opposed to the protean self-concept and careerist self-concept opposed to social self-concept. Using a new career value inventory, the model was tested on a sample of 240 employees and 155 managers in a health care organization. Construct validity was demonstrated by linking career values with career anchors, proactivity and collectivism. For instance, of the four career self-concepts, only the careerist self-concept is significantly related to the managerial competence.

KEYWORDS: career value structure, career anchors, proactivity, individualism/collectivism.

Introduction

Career anchors are key concepts in the field of career management. Although research on career anchors has enriched the field of career management considerably, serious problems remain. For example, the dominance of a single career anchor within an individual is not unanimously accepted (Feldman and Bolino, 1996), which raises the issue of a career anchor structure whereby individuals possess multiple anchors. To date, the structural dynamics between career anchors has received little attention. Whereas Schein argues that individuals have only one career anchor, a growing number of authors (Martineau, Wils and Tremblay, 2005) have put forth empirical evidence of multiple career anchors that

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could be considered concomitantly dominant, which allows the possibility of a career orientation structure expressed in the form of relations between anchors (dominant or not). To better understand the structural dynamics between career anchors, this study proposes a theoretical model that can resolve the issue of career anchor structure and validates the structure empirically. Our theoretical model rests on career values that are structured according to a circular logic, similar to work values (Wils, Luncasu and Waxin, 2007).

The career anchor theory and career values

Facts and career anchor theory

The issue of the number of career anchors. The concept of career anchors was introduced by Schein (1968, 1975). His research, which spans more than a decade, shows that an individual's career is "anchored" in a set of needs and motivations that the individual tries to satisfy through his work and the ensuing anticipated benefits. Schein thus identified distinct profiles, called career anchors, that guide individuals' career decisions. In 1985, Schein published the "Career orientations inventory," which comprises eight anchors: (1) technical and functional competence, (2) managerial competence, (3) autonomy/independence, (4) security/stability or organizational identity, (5) service/dedication to a cause, (6) pure challenge (or variety), (7) lifestyle and (8) entrepreneurial creativity. A comparison of these anchors with those of DeLong (1982a, 1982b, 1983a, 1983b, 1984) shows that Schein (1985) added the concept of "independence" to the autonomy anchor, the concept of "stability" to the security anchor and the concept of "dedication to a cause" to the service anchor. He also combined the identity anchor measured by DeLong with the security and stability anchors. The variety anchor was reviewed and renamed the pure challenge anchor in 1987 (Schein, 1987b: unpublished work cited in Ginzberg and Baroudi, 1992). Lastly, Schein (1985) added a new anchor to his model: lifestyle.

Nonetheless, this conceptualization is increasingly being questioned. Empirical studies show that the security/stability anchor has been split into two factors, organizational security (good employee benefits, advantageous pension plan) and geographical security (job stability in a given place) (DeLong, 1982a, 1984; Jiang, Klein and Balloun, 2001). The entrepreneurial creativity anchor has also been divided into two (Danziger, Rachman-Moore and Valency, 2008). Additionally, the debate centers on specific anchors. For example, should the identity anchor (defined by DeLong [1982b] as identification with a prestigious employer) be incorporated with the security anchor or the managerial competence anchor? Should it be differentiated from the other anchors? Further, DeLong and Schein disagree over the very existence of anchors such as lifestyle.

In addition, the initial studies of Schein (1975, 1978) involved educated men at the end of their careers. This led Yarnall (1998) to question the generalization of Schein's career anchors to other groups such as women, people of different races and less educated individuals. Feldman and Bolino (1996) expressed similar criticism: they considered Schein's model imprecise from a theoretical standpoint and the results of his empirical studies inconclusive. Notably, they underscore that career anchors are grounded in qualitative research exclusively. Yarnall (1998) points out that most studies on the topic had focused almost exclusively on confirming the existence of career anchors (Danziger, Rachman-Moore and Valency, 2008) rather than on validating and developing the theory Schein introduced.

The issue of the dominance of a single career anchor. Schein (1968, 2006) argues that individuals have only one dominant profile that guides and constrains their entire career. Several researchers have called into question the logic of dominance (Baroudi, 1988; Feldman and Bolino, 1996; Martineau, Wils and Tremblay, 2005; Orozco-Atienza, 2005; Yarnall, 1998). Feldman and Bolino (1996) analyzed Schein's 1978 study, and noted that about one third of respondents had a "multiple" career anchor profile, suggesting the presence of "primary" and "secondary" anchors. This observation was confirmed by Martineau, Wils and Tremblay (2005): 30.3% of their sample possessed a dominant anchor, which signifies that 69.7% held multiple anchors.

The issue of career anchor structure. To better grasp the relationship between career anchors, Feldman and Bolino (1996) propose an octagonal structure of career anchors. According to their model, there is proximity ("compatibility") between the contiguous anchors of the octagon (e.g., technical competence anchor and challenge anchor) and opposition ("incompatibility") between diametrically opposed anchors (e.g., security/stability anchor and entrepreneurial creativity anchor). Feldman and Bolino's (1996) idea of creating a career anchor structure model is intriguing and highly original. Nonetheless, this model has at least three weaknesses. First, Feldman and Bolino (1996) theorized an opposition between some anchors, but omitted to specify the structure of the model, namely the axes that are used to group contiguous anchors into opposing pairs of quadrants. The lack of specification of this model raises questions such as whether entrepreneurial creativity is associated with managerial competence, autonomy, or to both anchors to bring about a quadrant made up of compatible anchors. Second, the octagonal model is made up of eight anchors, but it is unclear where other anchors such as identity are located within the model. Third, Wils, Wils and Tremblay (2010) tested a career anchor structure using a sample of 900 engineers, but did not find the same relationships as those proposed in the octagonal model. For example, pure challenge was not empirically located

between technical/functional competence and security/stability, as the octagonal model of Feldman and Bolino (1986) predicts. Barclay (2009) and Chapman (2009) also found several weaknesses in the octagonal model proposed by Feldman and Bolino.

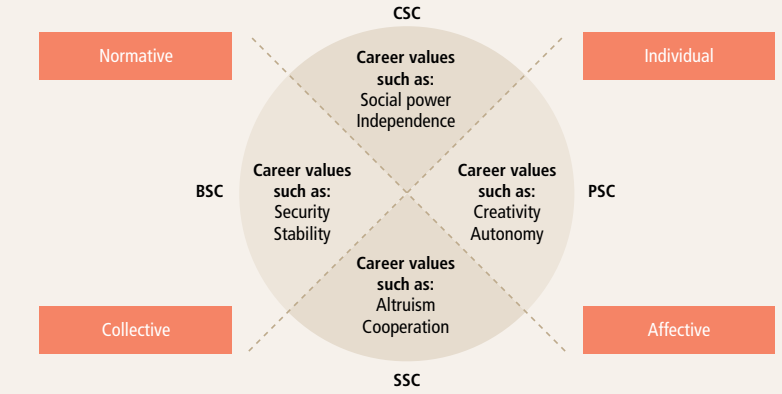
Theory of career value structure

Circular model of work value structure. In 1992, Schwartz introduced the theory of universality of the value structure. He asserts that "values (1) are concepts or beliefs, (2) pertain to desirable end states or behaviors, (3) transcend specific situations, (4) guide selection or evaluation of behavior and events, and (5) are ordered by relative importance" (Schwartz, 1992: 4). Inspired by Schwartz, Wils, Luncasu and Waxin (2007) proposed and validated a model of work values. These values "are specific expressions of general values in the work setting" (Ros, Schwartz and Surkis, 1999: 54). They "answer the question of what is important to individuals in their working lives" (Lyons, Higgins and Duxbury, 2009). The work value structure model explains the dynamics of work values. At an aggregate level, the circular model is divided into four distinct quadrants: conservation is opposed to openness to change, whereas self-enhancement is opposed to self-transcendence. Similar to the anchor model of Feldman and Bolino (1996), the circular model of Wils, Luncasu and Waxin (2007) proposes that two adjacent motivational domains correspond to "compatibility," whereas two diametrically opposed motivational domains correspond to "incompatibility".

Circular model of career value structure. Most career values stem from the stream of research on vocational behavior and career choice (Super, 1970; Davis and Lofquist, 1984). Career values refer to a general belief about career. They are a set of underlying desirability criteria that determine one's preference for a sub-set of work values that are important to assess one's career success. Similar to fundamental values or work values, the number of career values is infinite. Given that these values form a continuum, it is possible to partition them into a finite number of sub-sets of values within which all career values can be categorized. This partition of career values thus becomes a pattern that specifically guides individuals' career decisions. Career values organized according to circular logic may thus be grouped into four large groups of values (or quadrants), which are opposed in pairs by the axes that structure that model. Horizontally, the "bureaucratic self concept" (BSC) quadrant is opposed to the "protean self concept" (PSC) quadrant, whereas on the vertical axis, the "careerist self concept" (CSC) quadrant is opposed to the "social self concept" (SSC) quadrant, as Figure 1 illustrates.

The quadrants identify four self concepts related to career success. The BSC, which emphasizes stability, is opposed to the PSC, in which flexibility is the priority.

FIGURE 1
Career value structure model



The opposition between a traditional (bureaucratic) and a new (protean) career concept has been analyzed by several authors (e.g., Hall, 2004). The CSC, which places personal interests above those of others, is opposed to the SSC, which gives precedence to the interests of others. Several works have underlined the importance of distinguishing between personal interests and collective interests at the cultural (Hofstede, 1980) and individual (Cohen and Avrahami, 2006) levels.

The BSC, which rests on the concept of objective career success expressed in terms of stability, allows individuals to envision their career in a long-term organizational perspective (bureaucratic model). Accordingly, individuals see their career as a succession of positions in an organization: they willingly obey organizational rules, display loyalty and make sacrifices in exchange for advantages such as job security. Their motivation comes from satisfying their need for security.

The PSC, which rests on the concept of subjective career success expressed in terms of self development, emphasizes individuals' careers in an individual learning perspective. Thus, individuals see their career as a succession of projects that allow them to develop professionally in keeping with their personal priorities (Levelle, 2010). They derive motivation from satisfying their self actualization needs.

The CSC, which rests on the concept of objective career success expressed in terms of wage increases and prestige, refers to individuals who see their career in a competitive individual perspective. Accordingly, individuals perceive career success as a hierarchical progression from company to company that lets them satisfy their need for domination and social esteem. They thus place importance on personal success, social status and control of resources and people.

The SSC is based on the concept of career success expressed in relationship terms. It situates individuals' careers in a social perspective (social interactions).

Accordingly, individuals see their careers as an opportunity to help others, which allows them to maintain internal harmony. Their main motivation comes from satisfying their needs for affiliation.

These four self concepts are defined by two axes whose poles link contiguous self concepts. The first axis is made up of two poles, namely individual and collective orientation, whereas the second axis includes the two poles of normative and affective orientation. On the individual-collective axis, the CSC and the PSC have an "individual" self concept in common: individuals with a CSC rely on individualistic interests to stand out from others in society, whereas individuals with a PSC use flexibility to flourish as an individual. Thus, the CSC and the PSC belong to a person-centered perspective based on self-directed career values. In contrast, the SSC and the BSC are based on a collective self concept (Brewer and Gardner, 1996). The SSC implies alignment with others (teamwork or contribution to society), while the BSC refers to the organization.

On the second axis, the CSC and the BSC focus on the normative (external perspective based on extrinsic or instrumental values) whereas the SSC and the PSC place importance on the affective (internal perspective centered on intrinsic or cognitive values). The CSC and the BSC focus on societal and organizational standards, which emphasizes calculated organizational commitment (Vuuren *et al.*, 2008). Individuals with a CSC see their career as a short-term transaction. They build a career in a given organization as long as extrinsic rewards such as promotions (and related rewards such as money or power) are forthcoming. By comparison, individuals with a BSC see their career as a long-term transaction. They loyally build their whole career in a given organization in exchange for extrinsic rewards such as job security and good employee benefits. In contrast, the SSC and the PSC reflect intrinsic values: the RSC favors values resulting from social relationships, whereas the PSC emphasizes values resulting from the work itself (learning).

Each quadrant or self concept is characterized by particular career values that underlie the concepts of career success (defined as "accomplishment of desirable work-related outcomes" (Arthur, Khapova and Wilderom, 2005: 179). The CSC is translated by 16 values anchored in three concepts: personal interests, social power and accomplishment (as defined by Schwartz). The SSC comprises 11 values related to two concepts: well-being and universalism (internal balance, cause). The BSC is made up of 10 values that reflect security, stability and conformity. Lastly, the PSC emphasizes 14 values related to self actualization (stimulation, creativity and hedonism). To test the theoretical model, we formulate six hypotheses: the first four hypotheses test the theoretical association of the career values within the four types of self concept (see inventory of values in Table 1), and the two other hypotheses test the oppositions between types of incompatible self concepts.

Hypothesis 1 Career values associated with the CSC belong to the same domain or quadrant.

Hypothesis 2 Career values associated with the PSC belong to the same domain.

Hypothesis 3 Career values associated with the SSC belong to the same domain.

Hypothesis 4 Career values associated with the BSC belong to the same domain.

Hypothesis 5 Career values associated with the CSC are negatively correlated with the values associated with the SSC.

Hypothesis 6 Career values associated with the BSC are negatively correlated with the values associated with the PSC.

Construct validity of the career value structure

Career values and career anchors.

The self concepts in our theoretical model of career values should be associated with career anchors because career anchors, like career values, refer to deeply rooted motivations that guide behaviors. A quadrant is made up of one or more contiguous anchors; this limits the number of anchor families to four, which solves the problem of the exact number of anchors because an unspecified number of anchors can be categorized into a finite number of quadrants. The correspondence between quadrants and career anchors depends on the clarity of the definition of career anchors. When career anchors are clearly defined, correspondence is straight forward. For example, the managerial competence anchor and the identity anchor are unambiguously associated with the CSC because the key concepts expressed in these anchors correspond to the values belonging to the CSC (see Table 1). The same situation occurs for the anchors of creativity, security, stability and service/dedication. To test the validity of our model, we formulate the following hypotheses:

Hypothesis 7 Managerial competence anchor is better predicted by CSC than by the other self concepts.

Hypothesis 8 Identity anchor is better predicted by CSC than by the other self concepts.

Hypothesis 9 Creativity anchor is better predicted by PSC than by the other self concepts.

Hypothesis 10 Service anchor is better predicted by SSC than by the other self concepts.

Hypothesis 11 Security anchor is better predicted by BSC than by the other self concepts.

Hypothesis 12 Stability anchor is better predicted by BSC than by the other self concepts.

Hypothesis 13 Challenge anchor is better predicted by PSC than by the other self concepts.

TABLE 1

Correspondence between career anchors and career values

Career anchor	Key concepts	Career value	Self concept
Autonomy / Independence	Autonomy	Autonomy (AUTO)	PSC
		Self-organization (SEOR)	
	Freedom	Independence (INDE)	CSC
		Freedom (FREE)	
		Individualism (INDI)	
Entrepreneurial creativity	Entrepreneurship	Innovation (INNO)	PSC
		Vision (VISI)	
	Creativity	Creativity (CREA)	PSC
		Originality (ORIG)	
		Curiosity (CURI)	
Pure challenge	Professional challenge	Passion at work (PASS)	PSC
		Pleasure (PLEA)	
		Varied work (VARI)	
		Audacity (AUDA)	
		Stimulating work (STIM)	
Managerial competence	Management skills	Managerial competence (MCOM)	CSC
		Social power (POWE)	
		Hierarchical authority (AUTH)	
	Managerial position	Money (MONE)	CSC
		Material comfort (MATE)	
Identity	Recognition	Social identification (SIDE)	CSC
		Prestige (PRES)	
		Social recognition (SREC)	
		Social valorization (SVAL)	
	Hierarchical success	Ambition (AMBI)	CSC
		Competition (COMP)	
		Professional success (PRSU)	
		Personal success (PESU)	
Security / Stability	Organizational security	Job security (SECU)	BSC
		Security at work (WSEC)	
	Geographical stability	Geographical stability (GSTA)	BSC
		Attachment to the position (PATT)	
Service / Dedication	Cause	Collective well-being (CWEL)	SSC
		Devotion (DEVO)	
		Engagement (ENGA)	
		Sense of duty (CAUS)	
	Service to others	Help to others (HELP)	SSC
		Altruism (ALTR)	
		Cooperation (COOP)	
		Team spirit (TEAM)	
		Generosity (GENE)	

TABLE 1 (SUITE)

Career anchor	Key concepts	Career value	Self concept
Technical / Functional competence	Technique competence	Specialization (SPEC)	BSC
	Professional competence	Expertise (EXPE)	PSC
Lifestyle	Work/life balance	Lifestyle (LSTY)	PSC
	Personal balance	Happiness at work (HAPP)	SSC
		Internal balance (IBAL)	
Other items	Sacrifice	Self sacrifice (SELF)	BSC
	Loyalty	Organizational loyalty (ORGL)	
	Conservatism	Prudence (PRUD)	
		Acceptance of rules (RACC)	
		Self-discipline (DISC)	

Nonetheless, Table 1 shows that a few anchors contain several concepts that belong to different quadrants. First, the autonomy/independence anchor contains two concepts: autonomy is associated with the PSC, whereas independence refers to the concepts of freedom and individualism, which are associated more with the CSC. The lifestyle anchor is also ambiguous: personal equilibrium, which allows one to preserve health, is attached to the BSC, whereas work/family balance, which allows one to conduct a professional career effectively, is attached instead to the PSC. Lastly, the technical/functional competence anchor contains two distinct concepts: attachment to a technique (technical competence), which provides security because of its routine nature, is associated with the BSC, whereas professional growth (functional competence) is linked to the PSC because of the continuous improvement required to acquire expertise. This conceptual blurriness warrants competing hypotheses.

Hypothesis 14-a Autonomy anchor is better predicted by PSC than by BSC and SSC.

Hypothesis 14-b Autonomy anchor is better predicted by CSC than by BSC and SSC.

Hypothesis 15-a Technical/functional competence anchor is better predicted by BSC than by CSC and SSC.

Hypothesis 15-b Technical/functional competence anchor is better predicted by PSC than by CSC and SSC.

Hypothesis 16-a Lifestyle anchor is better predicted by BSC than by CSC and SSC.

Hypothesis 16-b Lifestyle anchor is better predicted by PSC than by CSC and SSC.

Predictive/nomological validity of the career value structure

Career value and proactive behaviors. Crant (2000) defines proactivity as individuals' capacity to take initiatives to improve or create circumstances in their

environment. In this study, proactivity is conceived as a behavior for predictive validity purposes. Proactive individuals adopt an active role at work by seeking to defy the status quo, initiating multiple changes, displaying initiative, seeking opportunities and taking actions to influence their environment (Bateman and Crant, 1993). Conversely, individuals that are not proactive tend to adopt reactive and passive behaviors. They thus demonstrate little initiative at work and rely on others to help them adapt to changes in their surroundings (Crant, 2000). Regarding values, Schwartz *et al.* (2001) found a link between "change seeking" and the motivational domain of challenge ($r = .37$, $p < .001$). The fact that the challenge domain is part of the PSC, that proactivity is an integral part of PSC (Cabrera, 2009) and that there is an opposition between the PSC and the BSC leads to the following hypotheses.

Hypothesis 17 A stronger PSC is associated with more proactive behavior.

Hypothesis 18 A stronger BSC is associated with less proactive behavior.

Career values and collectivism

Collectivism and its inverse (individualism) are individual dispositions linked to self concepts. Ramamoorthy and Carroll (1998) maintain that collectivism encourages cooperation, whereas individualism is driven by competitiveness. Because collectivist individuals prefer teamwork and encourage cooperation, while individualists tend to cooperate less in group activities (Wagner, 1995), collectivism should be positively associated with the SSC. Given the opposition between the SSC and the CSC, collectivism is purportedly associated with the CSC, hence the last two hypotheses:

Hypothesis 19 A stronger SSC is associated with a greater collective disposition.

Hypothesis 20 A stronger CSC is associated with a weaker collective disposition.

Methodology

Data collection from employees

Sample

Given the large number of items, we created two versions of the questionnaires intended for employees, and we conducted a pilot test to refine the two versions of the questionnaire. Both questionnaires contained items from the new career value instrument and items from the short form of the social desirability scale, but the first questionnaire also contained the items from the short form of the career anchor instrument and from the collectivism instrument. The questionnaires were distributed by mail to 1050 employees working in a Canadian health

care organization. A total of 240 completed questionnaires were received. Of this number, 118 respondents completed Questionnaire 1, and 122 completed Questionnaire 2. The global response rate was therefore about 23%. To ensure internal validity, we endeavored to control social desirability[1]. In total, 33 observations were eliminated because of the desirability criterion, which reduced the sample size to 207 observations. This sample size was acceptable: Schwartz (1992) advocates a minimum size of 150 cases. Further, the sample is heterogeneous in terms of level of education (40.4% university graduates), employment status (48.1% full-time workers), job category (45% professionals, 27% blue/white collars, 14% technicians, 14% managers) and generation (ages 20 to 70 with an average age of 42). However, women predominate in the sample (84.5%), which is typical for the health care sector.

Measurement instruments used in the employee survey

Construction of a new career value instrument

To construct the new inventory of career values, we created 51 indicators related to career values. Consistent with the methodology of Schwartz (1992), a short description was provided for each of the career values generated to enable the respondents to evaluate the values when completing the questionnaire (for example: "SELF SACRIFICE-sacrificing my interests for others at work"). We ensured that these career values express the ideas conveyed in the indicators used by Schein and DeLong to measure career anchors, as shown in Table 1. However, we explored two new career anchors that potentially express the inverse of the items formulated by Schein (e.g., being free of organizational constraints). To do so, we introduced one indicator (value: "self discipline") to measure conformity (Wils, Luncasu and Waxin, 2007) and included four indicators (values: "acceptance of rules", "prudence", "organizational loyalty", "self sacrifice") to measure tradition/conformity (Wils, Luncasu and Waxin, 2007). The measurement scale retained for all items ranges from -1 to 7 (-1: opposed to my values, 0: not important, 1 to 5: important, 6: very important and 7: essential).

Career anchors measurement instrument

Given the large number of indicators of Schein's original career anchor instrument, we retain the short version of Schein's 1985 questionnaire, developed and validated by Igbaria and Baroudi (1993) (25 indicators instead of 41, with alpha coefficients varying from .62 to .90). Many authors (e.g., Igbaria, Kassicieh and Silver, 1999 and Petroni, 2000) also used the short version of the questionnaire productively. Considering that Schein's initial version did not measure the career anchor of identity, but that DeLong recognized its existence, the three indicators that obtained the highest factors in the factor analysis of DeLong (1982a, 1982b)

were added to the questionnaire of Igbaria and Baroudi (1993). Thus, the career anchors were measured by 16 indicators[2] using a scale ranging from 1 (of no importance) to 6 (very important) and by 12 indicators using a scale ranging from 1 (not at all true) to 6 (completely true), for a total of 28 indicators.

Collectivism measurement instrument

Collectivism was measured with the individualism/collectivism instrument developed by Peterson and Seligman (2004), made up of nine items, five of which have an inverse formulation. Respondents were asked to use a five-point Likert measurement scale (1 = very inaccurate to 5 = very accurate) to evaluate each item. The individualism items were recoded to measure collectivism. This instrument previously presented good reliability (alpha of .78). In this study, the alpha coefficient is equal to .77.

Data collection from managers

Sample

To evaluate the proactive behaviors of the employees that participated in the study, a third questionnaire intended for their supervisors was created. Our objective was to avoid *common* variance bias. In particular, we made this decision in line with the recommendations of Feldman and Bolino (1996) that self-reported data should not be used to measure a dependent variable that is linked with career anchor variables. In total, we invited 35 managers to participate in the second phase of the study intended to assess the behaviors of 227 employees (who agreed to be evaluated by their supervisor). Of the 35 supervisors solicited, 25 agreed to participate, corresponding to a response rate of 71%. Consequently, 155 dyads were formed, equivalent to a successful pairing of 68%.

Proactive behavior measurement instrument

Crant (2000) argues that the optimal method to measure proactivity is still subject to debate. He observes that some researchers measure proactivity as a personality factor or as behaviors at work. For the present study we retain a new proactivity scale made up of six behaviors (behavioral items from Bateman and Crant's scale (1993) as well as new items created for this study). One item[3] is worded as follows: "this employee takes actions to avoid experiencing certain events." In this study, the alpha coefficient of proactive behaviors is equal to .89.

Statistical analyses

Multidimensional analysis. Schwartz (1992) advocates a multidimensional analysis of similarities of the "Guttman-Lingoes smallest space analysis" or "SSA" ("Similarity Structure Analysis") type to analyze relations between values.

This statistical method illustrates similarities between variables in a geometric space with the fewest possible dimensions (Evrard, Pras and Roux, 2003). To perform these multidimensional analyses of similarities ("MultiDimensional Scaling or MDS"), we used SYSTAT software (the only one that offers the "Guttman-Lingoes" option). In addition, we use relative data (standardized on an individual basis) to clarify the correlational dynamics between the quadrants, as suggested by Schwartz (1992). Lastly, for correlational analyses we used SPSS software.

Other statistical techniques

Consistent with Igbaria and Baroudi (1993), confirmatory factor analysis using AMOS software was performed on the data related to career anchors measured by the short-form instrument that these authors developed, to confirm the presence of ten latent factors. All the other statistical techniques (correlation, alpha, regression) involved SPSS software. Relative weight analysis was performed as a supplement to multiple regression analysis (Tonidandel and LeBreton, 2011).

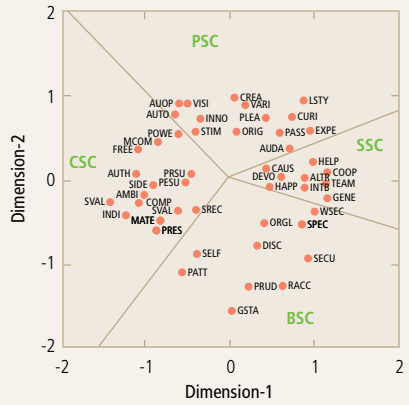
Results

Career value structure

We performed the first multidimensional analysis based on 51 statements pertaining to career values to determine the location of the statements on the map. The first analysis shows that one item is found in a quadrant contiguous to the one theoretically predicted: the value "money," which should be situated in the CSC, is located in the BSC. This item was removed for the second analysis. On the second map, a similar situation occurred: the value "collective well-being" was located in the PSC rather than the SSC. After this item was withdrawn, a final similar situation was observed on the third map: the value "engagement" was situated in the PSC rather than the SSC, which led to its elimination. In total, three career values (out of 51) were eliminated. In the final map, presented in Figure 2, the coefficient of alienation is .28. Cronbach's alphas obtained by quadrant are $\alpha = .83$ for the CSC (15 career values), $\alpha = .78$ for the SSC (9 career values), $\alpha = .62$ for the BSC (10 career values) and $\alpha = .77$ for the PSC (14 career values). These results support H1 to H4.

Based on the items contained in each quadrant in the map (Figure 2), we generated four composite variables, after having *standardized the data on an individual basis* (Wils, Luncasu and Waxin, 2007). These four variables correspond to four quadrants, namely CSC, PSC, SSC and BSC. Correlational analysis on the aggregate level indicates that the CSC is negatively correlated with the SSC ($r = -.31$, $p < .000$), which supports H5. The PSC is negatively correlated with the BSC ($r = -.23$, $p < .001$), which supports H6.

FIGURE 2
Final Map (SSA #3)



Legend: CSC: Careerist Self Concept; SSC Social Self Concept; BSC: Bureaucratic Self Concept; PSC: Protean Self Concept

Relationships between career value structure and career anchors

The career anchors were measured using 28 statements taken from the measurement instruments of Igbaria and Baroudi and DeLong. Confirmatory factor analysis (CFA) was used to evaluate the data fit. We performed a CFA to test the 10-anchor solution (8 anchors of Schein with the security anchor divided in two, plus the identity anchor). The results were satisfactory ($Chi^2/dl = 1.57$; GFI = .81; AGFI = .72; RMR = .10; RMSEA = .07; CFI = .83). We then built composite variables for each of the ten career anchors (dependent variable) to establish the link with career values (independent variables) using multiple regression analysis.

Of the four career self concepts, only the CSC is significantly related to the managerial competence anchor (Beta = .51; $p < .000$; Supplement to regression analysis: $R^2 = .40$; Raw relative weight = .31; Relative weight as percentage of R-square = 77.5%), which supports H7. A similar result was obtained for the identity anchor, which was significantly associated with the CSC (Beta = .39; $p < .001$; Supplement to regression analysis: $R^2 = .24$; Raw relative weight = .16; Relative weight as percentage of R-square = 65.0%), consistent with H8. Contrary to H9, the PSC is not associated with the entrepreneurial creativity anchor. The results show that only the CSC is marginally associated with the entrepreneurial career anchor (Beta = .22; $p < .07$; Supplement to regression analysis: $R^2 = .12$; Raw relative weight = .05; Relative weight as percentage of R-square = 44.4%). The SSC is significantly associated with the service/dedication anchor (Beta = .42; $p < .001$; Supplement to regression analysis: $R^2 = .31$; Raw relative weight = .12; Relative weight as percentage of R-square = 38.1%), which supports H10. In contrast, the PSC is also associated with the service/dedication anchor (Beta = .27; $p < .03$;

Supplement to regression analysis: R^2 = .31; Raw relative weight = .17; Relative weight as percentage of R-square = 55.4%), which is an unexpected result.

The BSC is significantly related to the security anchor (Beta = .52; p < .000; Supplement to regression analysis: R^2 = .26; Raw relative weight = .24; Relative weight as percentage of R-square = 91.5%) and to the stability anchor (Beta = .46; p < .000; Supplement to regression analysis: R^2 = .14; Raw relative weight = .12; Relative weight as percentage of R-square = 88.4%), in line with H11 and H12. The PSC is significantly linked to pure challenge (Beta = .45; p < .001; Supplement to regression analysis: R^2 = .19; Raw relative weight = .11; Relative weight as percentage of R-square = 55.8%), which supports H13. However, this anchor is also negatively associated with the SSC (Beta = -.31; p < .02; Supplement to regression analysis: R^2 = .19; Raw relative weight = .03; Relative weight as percentage of R-square = 16.9%), which was an unexpected result. The autonomy/ independence anchor is significantly associated with the CSC (Beta = .33; p < .008; Supplement to regression analysis: R^2 = .11; Raw relative weight = .06; Relative weight as percentage of R-square = 59.5%) and not with the PSC, which supports H14-b. The BSC is significantly linked to the technical/functional competence anchor (Beta = .29; p < .02; Supplement to regression analysis: R^2 = .13; Raw relative weight = .08; Relative weight as percentage of R-square = 63.5%) rather than to the PSC, as H15-a predicted. The lifestyle anchor is not associated with any of the four self concepts, which refutes H16-a and H16-b.

To establish convergent validity, these results of the multiple regression analysis were used to assign career anchors to four groups. As Figure 3 shows, the number of anchors is different within each quadrant because Schein's anchors do not reflect a representative set of career values. The managerial competence anchor can be grouped with the identity, independence and entrepreneurship (MIIE) anchors because they are associated with CSC. The security, stability and technical/ functional competence (SST) anchors can be grouped because they are linked to the BSC. The challenge (PC) anchor is associated with the PSC, whereas the service/dedication (SD) anchor is associated with the SSC[4]. By correlating the four groups of career anchors (MIIE, PC, SST and SD) with the four quadrants of self concept (CSC, PSC, BSC and SSC), average to high convergent validity[5] was obtained for all the quadrants (CSC and MIIE: r = .63; SSC and SD: r = .45; BSC and SST: r = .48; PSC and PC: r = .33). The lower convergent validity for the SSC and the PSC may be explained by the lack of conceptual clarity of the challenge and service anchors. The challenge anchor may have two meanings: facing purely professional challenges (hence the link with the PSC) or resolving difficult management problems (hence the link with the CSC). The service anchor encompasses both the concept of competence (hence the link with the PSC) that is applied toward service to a cause (hence the link with the SSC). Overall, the analysis of convergent validity shows that the construct validity of career values is good.

FIGURE 3
Career anchors and value career structure quadrants

Relations between career values and proactive behaviors. Correlational analyses reveal that the PSC is positively linked to proactive behavior ($r = .22$; $p < .01$), which supports H17, whereas BSC is negatively related to proactivity ($r = -.15$; $p < .10$). Given that the latter relation is not very significant, H18 is only marginally supported.

Relations between career values and collectivism. Our findings reveal that collectivism is positively associated with the SSC ($r = .45$; $p < .000$) and negatively associated with the CSC ($r = -.28$; $p < .005$), which confirms H19 and H20. The BSC is also positively associated, albeit less strongly, with collectivism ($r = .27$; $p < .008$). Given that the SSC and the BSC contain collective values, this result is not surprising.

Discussion and Conclusion

Validation of the career value structure model

Apart from three values that had to be eliminated ("money", "collective well-being", and "commitment"), the results of the multidimensional analysis argue in favor of our career value structure model because the values are organized as the theoretical model specified (affirmation of H1, H2, H3 and H4). The study also validated the correlational dynamics that oppose the CSC and the SSC, and the BSC and the PSC (affirmation of H5 and H6). These results tend to validate the theoretical model of career value structure. This validation is robust because the sample used is heterogeneous in terms of occupation, education and job status.

Aside from testing this new model, our study clarifies several problems related to career anchors. First, the results indicate that expertise is associated with the PSC, but specialization belongs to the BSC. This finding is important because it suggests that the technical/functional competence anchor needs to be reformulated. For a technician, specialization is motivated by security, whereas for a professional, expertise meets a need for professional growth. Second, our results corroborate the conclusion of Danziger, Rachman-Moore and Valency (2008) that the entrepreneurial creativity anchor also needs to be reformulated. The concept of creativity is distinct from that of entrepreneurship. The entrepreneurial creativity anchor, as defined by the instrument of Igbaria and Baroudi (1993), measures entrepreneurship, which explains its association with the CSC rather than the PSC. In contrast, our study confirms that creativity is part of the PSC. Therefore, this anchor must be split into two. Third, our results indicate that the autonomy anchor as measured by Igbaria and Baroudi (1993) is also problematic. Independence is a concept that differs from professional autonomy: independence is linked to freedom of action (ends), hence its association with the CSC, whereas professional autonomy is associated with a way of doing work (means), hence its belonging to the PSC. The independence/autonomy anchor should consequently be split into two. Fourth, the results show that the lifestyle anchor must be reviewed. In our study it is associated with the PSC. As Singh, Bhattacharjee and Kodwani (2009) contend, lifestyle may meet needs for security (work/life balance) or career needs (flexibility to ensure career development). Fifth, our work value structure model is parsimonious. The issue of the exact number of career anchors becomes irrelevant because four self concepts suffice to capture the essence of the career anchors.

We have confirmed the construct validity of our new instrument of career values. Not only has a link been found with most career anchors, but also with proactive behaviors and collectivism. As a result, we can conclude that the career value instrument is validated nomologically. This result is even more compelling because it is not subject to common variance bias.

Avenues of research

Igbaria and Baroudi (1993) proposed a short-form instrument to measure Schein's career anchors. However, our results indicate that their 25-item instrument needs to be improved (confirmatory factor analysis's fit indices at the limits of a satisfactory fit, alpha coefficients varying from .46 to .87). In the same vein, Schein's original instrument also has weaknesses: ipsative items to reformulate, and problematic anchors to redefine (Danziger, Rachman-Moore and Valency, 2008). Instead of modifying these instruments, our study proposes an alternative, namely using the career value inventory. Further, the career value inventory

could be validated in other sectors (e.g., arts and culture), work contexts (e.g., expatriates) or countries to evaluate the universalism of the career value structure model. In addition, the quadrants of career values can provide insight into career paths (e.g., the linear path and the CSC).

Contribution of the research

Whereas the literature generally views career anchors as being totally independent from one another, the validation proposed in our research tests a new theory. Not only does our model organize career values in a circular logic, according to the phenomenon of attraction and repulsion, but it also groups them in career value quadrants. Consequently, our research makes an important theoretical contribution because it demonstrates that career orientations can be investigated based on a more specified theory than that of career anchors. In addition to making a theoretical contribution, the model we have validated can also be beneficial for organizations from a practical standpoint. Notably, human resources professionals can consider career values as a supplementary management tool (e.g., for skills management, career management, compensation management and recruitment).

Limitations of the study

One limitation is that our sample was drawn from a single organization, which limits the possibilities of generalization. Further, as Evrard, Pras and Roux (2003) recommend, based on the paradigm of Churchill, it is preferable to separate research into two phases (validation of the measurement instrument based on a different sample from that used to develop the tool). As a result, a validation needs to be conducted on different samples to confirm the results of the present study. Nevertheless, given that our results corroborate several major findings obtained from a large sample of engineers (Wils, Wils and Tremblay, 2010), we can conclude that the method used does not seem to have affected the quality of the data gathered.

Notes

1 As Schwartz (1992) recommended, we eliminated observations for which the maximum value of the career value measurement scale (7) was used more than 37.5% of the time by one respondent for a given value, which is systematic of a social desirability bias. We also eliminated observations for which a point on the value measurement scale was used more than 62.5% of the time, which, as Schwartz asserts, indicates that respondents did not make a serious effort to order the values in a hierarchy. In total, 22 observations were eliminated for these two reasons (19 and 3 respectively).

2 To better control social desirability, we measured it directly. We retained the Balanced Inventory of Desirable Behavior (BIDR), created in 1984 by Paulhus. This instrument fundamentally measures two dimensions of social desirability ("self-deception" and "impression management"). Paulhus (1984) argues that when questionnaires were self-administered and collected in a public context (possibility of tracing respondents through numbering of questionnaires), impression management must be controlled. Given the pertinence of the second dimension of the BIDR in our study, we chose the 20 items related to this dimension specified by Paulhus (1991). Of this number, 10 items were inverted. In addition, to better integrate this scale with another measurement scale included in the questionnaire, the statements range from 1 (strongly disagree) to 5 (strongly agree). Many authors that have used this scale obtained good internal consistency coefficients (Cronbach's alpha), including Bernardi (2006) (α = .81), Linden, Paulhus and Dobson (1986) (α = .75 for men; α = .73 for women) and Randall and Fernandes (1991) (α = .88). O'Rourke and Cappeliez (2003) noted that the coefficients of this scale usually vary between α = .75 and α = .80 (Paulhus, 1994, unpublished document). In this study, the alpha coefficient is .75. Lastly, to ensure consistency with the formulation of the initial indicators in English, a double translation was performed to establish their correspondence in French.

3 To determine the social desirability score for each of the respondents, we used the continuous scores method because Stöber, Dette and Musch (2002) and Paulhus (1994) demonstrated that they obtained higher internal consistency coefficients (Cronbach's alpha) than with dichotomous scores. The total score for this scale therefore ranges between 20 and 100. To control social desirability, we withdrew respondents whose score was too high, as numerous authors (Hough, 1998; Kanning and Kuhne, 2006; King and Bruner, 2000; Paulhus, 1991; Zerbe and Paulhus, 1987) recommend. Hough (1998) argues that the cut-off threshold corresponds a priori to the score to which 5% of the respondents replied exactly or higher (therefore the score that distinguishes 95% of the study participants). This procedure led us to eliminate 11 other observations characterized by a high social desirability score.

4 Given that the study was conducted in a French-speaking environment, to ensure consistency with the formulation of the initial indicators in English we performed a double translation to establish their correspondence in French.

5 The five other items were: 1) faced with change, this employee tries to anticipate challenges; 2) this employee plays the role of agent of change at the workplace; 3) this employee excels at transforming problems into business opportunities; 4) this employee takes the initiative to constantly seek better ways to do things and 5) when this employee has an idea about how to solve the problem, s/he is actively involved and deploys considerable energy to make his/her idea concrete.

6 The lifestyle anchor is excluded from the analysis because it was not possible to determine whether the anchor belongs to SST, PSC or another career anchor quadrant.

7 Correlations between r = .30 and r = .70 according to Saunders *et al.* (2007).

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SUMMARY

Revisiting the Career Anchor Model: a Proposition and an Empirical Investigation of a New Model of Career Value Structure

This study proposes an original model of career values organized in a circular logic. The new career value structure consists of four quadrants opposed in pairs (bureaucratic self-concept versus protean self-concept, and careerist self-concept versus social self-concept). Contrary to Schein's model, which rests on the dominance of a single career anchor, our model organizes career anchors according to attraction and repulsion, which may explain the existence of several dominant anchors.

Based on a sample of 240 employees and 155 managers in the healthcare sector, a new instrument to measure career values was validated. Four quadrants emerged from the multidimensional analysis. Hypotheses regarding the links between quadrants of career values and career anchors were largely supported by multiple regression analysis. Notably, the managerial career anchor is significantly linked to the careerist self-concept, whereas the service anchor is significantly associated with the social self-concept. The study also affirmed hypotheses linking the quadrants to other variables like collectivism and proactive behaviors. Accordingly, collectivism is significantly linked to the social self-concept, whereas proactive behaviors are connected to the protean self-concept. Not only was the structure model verified empirically, but the construct validity of the new instrument was also demonstrated. This study also clarifies several problems related to career anchors, such as career anchor structures or ambiguity inherent in some career anchor measurement indicators.

KEYWORDS: career value structure, career anchors, proactivity, individualism/collectivism.

RÉSUMÉ

Repenser le modèle des ancres de carrière : proposition et test empirique d'un nouveau modèle de structuration des valeurs de carrière

La présente étude propose un modèle original de valeurs de carrière qui est organisé selon une logique circulaire. Cette nouvelle structuration des valeurs de carrière se compose de quatre quadrants qui s'opposent deux à deux (une représentation bureaucratique de soi contre une représentation protéenne de soi et une représentation carriériste de soi contre une représentation sociale de soi). Contrairement au modèle de Schein qui repose sur la dominance d'une seule ancre de carrière, le modèle permet d'organiser les ancres de carrière selon leur attirance et leur répulsion, ce qui peut d'expliquer l'existence de plusieurs ancres dominantes.

À partir d'un échantillon composé de 240 employés et de 155 cadres issus du secteur de la santé, un nouvel instrument de mesure des valeurs de carrière a été

validé. Quatre quadrants ont émergé de l'analyse multidimensionnelle. Les hypothèses relatives aux liens entre les quadrants de valeurs de carrière et les ancres de carrière ont été, en grande partie, confortées par l'analyse de régression multiple. Par exemple, l'ancre de gestion managériale est reliée significativement à la représentation carriériste de soi alors que l'ancre de service est associée significativement à la représentation sociale de soi. L'étude a également conforté des hypothèses reliant les quadrants à d'autres variables comme le collectivisme et les comportements proactifs. Ainsi, le collectivisme est significativement relié à la représentation sociale de soi alors que les comportements proactifs le sont à la représentation protéenne de soi. Non seulement le modèle de structuration a-t-il pu être vérifié empiriquement, mais la validité de construit du nouvel instrument a été aussi démontrée. L'étude contribue également à clarifier plusieurs problèmes reliés aux ancres de carrière comme la structuration des ancres de carrière ou l'ambiguïté de certains indicateurs de mesure des ancres de carrière.

MOTS-CLÉS : structuration des valeurs de carrière, ancres de carrière, proactivité, individualisme/collectivisme.

RESUMEN

Revisitando el modelo de anclaje de carrera: Propuesta y estudio empírico de un nuevo modelo de estructuración de valores de carrera

Este estudio propone un modelo original de valores de Carrera organizados bajo una lógica circular. Esta nueva estructuración de valores consiste en cuatro cuadrantes opuestos en pares (auto-evaluación de burocrático versus auto-evaluación de versátil, y auto-evaluación de carrerista versus auto-evaluación social). Contrariamente al modelo de Schein, que se queda en la preponderancia de un anclaje único de carrera, nuestro modelo organiza los anclajes de carrera según la atracción o la repulsión que pueden explicar la existencia de varios anclajes dominantes.

Basado en una muestra de 240 empleados y 155 directivos del sector de la salud, un nuevo instrumento de medida de los valores de carrera es validado. Cuatro cuadrantes emergen del análisis multidimensional. Las hipótesis con respecto a los vínculos entre los cuadrantes de valores de carrera y los anclajes de carrera son ampliamente confirmadas por los análisis de regresión múltiple. Especialmente, el anclaje de carrera de dirigente es significativamente vinculado al auto-concepto de carrerista, mientras que el servicio de anclaje es significativamente asociado al auto-concepto social. El estudio confirma también las hipótesis sobre el vínculo entre los cuadrantes y las otras variables tales como colectivismo y auto-concepto de proactividad. En concordancia a esto, colectivismo es significativamente vinculado al auto-concepto social, mientras que los comportamientos proactivos son conectados al auto-evaluación de versátil. El modelo de estructuración de

los valores de carrera fue confirmado empíricamente, y se demostró la validez de construcción de un nuevo instrumento. Este estudio clarifica también varios problemas relacionados a los anclajes de carrera tales como la estructuración de los anclajes de carrera o la ambigüedad inherente de algunos indicadores de medida de los anclajes de carrera.

PALABRAS CLAVES: Estructuración de valores de carrera, anclaje de carrera, proactividad, individualismo/colectivismo.