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Countries

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Abstract

This study presents the validation of a French version of the Career Adapt-Abilities Scale in four Francophone countries. The aim was to re-analyze the item selection and then compare this newly developed French-language form with the international form 2.0. Exploratory factor analysis was used as a tool for item selection, and confirmatory factor analysis (CFA) verified the structure of the CAAS French-language form. Measurement equivalence across the four countries was tested using multi-group CFA. Adults and adolescents (N=1,707) participated from Switzerland, Belgium, Luxembourg, and France. Items chosen for the final version of the CAAS French-language form are different to those in the CAAS international form 2.0 and provide an improvement in terms of reliability. The factor structure is replicable across country, age, and gender. Strong evidence for metric invariance and partial evidence for scalar invariance of the CAAS French-language form across countries is given. The CAAS French-language and CAAS international form 2.0 can be used in a combined form of 31 items. The CAAS French-language form will certainly be interesting for practitioners using interventions based on the life design paradigm or aiming at increasing career adapt-ability.

Keywords: career adapt-abilities, adaptability, test adaptation, measurement invariance

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Career adapt-ability is a psychosocial construct comprised of the resources an individual

uses to respond to tasks and challenges of vocational development (Savickas, 1997; Savickas &

Porfeli, 2012). The four dimensions of adapt-ability -- concern, control, curiosity and confidence

-- combine to represent a total adapt-ability score. Twenty-five items were created for each

adapt-ability dimension, which were reduced to 11 items per dimension following pilot studies in

the US. These 44 items became the CAAS research form (Savickas & Porfeli, 2012). The

outcome of a subsequent large international data collection project was the CAAS international

form 2.0 consisting of 6 items per scale. The French translation of the international form 2.0 of

the CareerAadapt-Abilities Scale (CAAS) has been used in French-speaking Switzerland

(Rossier, Zecca, Stauffer, Maggiori, & Dauwalder, 2012b) and France (Pouyaud, Vignoli,

Dosnon, & Lallemand, 2012). However, a comparison between the international form and this

French translation suggested poor replicability on the translation and the need for further analysis

(Savickas & Porfeli, 2012).

The international research conducted in 13 countries indicated that the underlying

structure of career adapt-abilities was stable across countries. Metric invariance was usually

reached across countries, signifying that item perception and interpretation is occurring similarly

across different countries (Savickas & Porfeli, 2012). However, the CAAS international form 2.0

did not display scalar invariance. The authors offered the psychosocial nature of adapt-abilities

as an explanation; adapt-abilities are not trait-like or context-independent. As such, for different

countries, item selection can be adjusted to ensure that the CAAS reflects cultural uniqueness

while still ensuring that individuals across countries interpret the CAAS in a conceptually similar

manner (Savickas & Porfeli, 2012). Further, the same French translation of the international form 2.0 of the CAAS performed better in French-speaking Switzerland (Rossier et al., 2012b) than in France (Pouyaud et al., 2012) suggesting that despite utilizing the same language version, influencing contextual factors may still be present. In this paper, we present the results of a study to develop the CAAS French-language form through a reanalysis of the item selection.

In the original international study, the items selected for the final inventory functioned best in all 13 countries. For any particular country, a slightly different set functioned slightly better. In addition to effectiveness, the international set of items were selected to maximize efficiency. Initially, it was determined that the four international scales could each include seven effective items. However, only the six best items in each set composed the final scales. While the seventh item in each set functioned effectively, they were not efficient in adding psychometric gain. Because the seventh item provided only minimal gain, compared to the substantial gain provided by each of the first six items in a set, they were not included in the final inventory. In short six items worked as well as seven items. For each country, an eighth and even ninth item may have offered substantial psychometric gains, but these items were not the same across countries. Each country could produce a slightly different version of the CAAS that functioned a little better than the single international version. Yet, the value of numerous unique inventories that functioned slightly better for each country did not offset the value of a common international set. However, given that the French language was used in four different countries, it makes sense to consider whether a French-langue version of the CAAS might supplement the international version. The present study examined whether an improved version could be constructed for Francophone countries. The basic question was not whether a slightly more effective inventory could be constructed for each of the four Francophone countries. We already know that this is

possible. The question under investigation herein is whether it is possible to construct a French-language version that generalizes across four Francophone countries.

Career Adapt-Ability

Savickas (1997) conceptualized career adapt-ability as an extension of Super's (1957) life-span, life-space theory and later as part of Savickas's (2005) own integrated career construction theory. Career construction requires four tasks, to 1) become *concerned* with one's future role as worker, 2) increase personal *control* over the professional activities one does, 3) display *curiosity* before making educational and vocational choices, and 4) build the necessary *confidence* to make and implement career choices (Savickas, 2002, 2005; Savickas et al., 2009). These dimensions of career adapt-ability represent general adaptive resources and strategies required at different career transitions, even those beginning in adolescence, as well as in daily general life (Savickas, 2005).

As a set of personal capacities and strengths, career adapt-ability has an important impact on various personal and work-related outcomes, such as quality of life (Soresi, Nota, & Ferrari, 2012), self-esteem (Van Vianen, Klehe, Koen, & Dries, 2012), and work engagement (Rossier et al., 2012b). Adapt-abilities assist individuals in adjusting their behaviors to specific situations, are evident at the intersection of the individual and environment, and thus are closely tied to specific contexts and roles and function as a type of self-regulation (Ebberwein, Krieshok, Ulven, & Prosser, 2004; McMahon, Watson, & Bimrose, 2012; Savickas & Porfeli, 2012). Relevant factors include the availability or lack of financial resources, the family situation, and the presence of support networks (Ebberwein et al., 2004). Further, there are indications that unemployed individuals respond to job loss with increased levels of adapt-ability (Maggiori, Johnston, & Massoudi, 2012).

Importance of the Context for the Development and Activation of Career Adapt-Abilities

Adapt-abilities represent a synthesis of the four key aspects of the life-span, life-space

theory of careers: individual differences, development, self, and context (Savickas, 1997;

Savickas & Porfeli, 2012). First individual differences in adaptivity, or the personality trait of

flexibility and willingness to change, shape how an individual responds to his or her environment

(Savickas & Porfeli, 2012). Second, anticipated development tasks or career interventions may

differ based on the context and timing (e.g. the age at which students must make career

decisions) and require the individual to be an actor in his or her context (Guichard, 2003). Third,

the individual develops a particular self-concept within the framework of a set of unique

circumstances, and this self-concept affects vocational behavior (Savickas, 1997). Fourth, the

interplay of work and life roles, such as those adopted in the family, is partly a function of

context in terms of social norms, family make-up, and availability of resources (Savickas, 1997).

Aspects unique to a particular context are strongly related to the formation and activation of an

individual's career adapt-ability. Broader social structures or policies are further influencing

forces: "Countries vary in the degree to which they prompt the formation of adaptability because

they provide different opportunities and imperatives to develop and express psychosocial

resources and transactional competencies" (Savickas & Porfeli, 2012, p. 663). Practical ways in

which work, education and employment are distributed, as well as commonly shared beliefs

about "career" and "work" (Guichard, 2009) specific to a particular context, may contribute to

country differences in adapt-ability scores.

Life-cycle transitions, representing adaptive challenges, are situations in which contextual

factors may be more pertinent (Savickas, 1997). Adolescents preparing for and negotiating the

transition from school to work, where career discourses are forefront, are in the process of

constructing their career-related identities (Guichard, Pouyaud, de Calan, & Dumora, 2012).

Educational systems with associated variations in timing, flexibility, assistance provided, and

opportunities for career interventions (Guichard, 2003; Savickas, 1997) may contribute to

different country mean scores on adapt-abilities. School system organization is determined

locally, whereas factors associated with work organization that influence career issues are more

similar across industrialized countries (Guichard, 2003). As such, the differences between

adolescents across countries may be more evident than the differences between adults.

The Necessity for Equivalence in Cross-Cultural Research

Establishing valid cross-cultural differences (or the lack thereof) is mainly interesting as a

starting point for further exploration into the factors that can explain cross-cultural similarities

and differences (Matsumoto & Yoo, 2006; van de Vijver & Tanzer, 2004). Measurement

equivalence and the lack of bias are prerequisites for cross-country score comparisons (van de

Vijver & Tanzer, 2004). Establishing measurement equivalence for the CAAS allows for cross-

country comparisons to be made, creating the foundation for subsequent studies to explore these

differences.

Aim of This Research

Following the work on the CAAS international form 2.0 (Savickas & Porfeli, 2012), this

was the first study to reanalyze the item selection of the CAAS. The aims of this study were: 1)

to analyze the psychometric properties of the CAAS in a Francophone sample of adolescents and

adults across Switzerland, Belgium, Luxembourg and France; and 2) to compare the international

form 2.0 with a specific French-language form resulting from a reanalysis of the item selection.

Following this, measurement equivalence of the CAAS French-language form across the

different countries was tested.

Method

Participants

Data were collected in the French-speaking regions of Switzerland, Belgium, and Luxembourg and in France, resulting in a combined sample of 1,707 participants (57% female, 40% male, missing values are due to non-response) with an age range of 13-79 ($M = 24.22$, $SD = 12.33$). The Swiss sample ($n = 468$) consisted of 54% female and 46% male participants with an age range of 14 to 79 ($M = 35.92$, $SD = 13.37$). Participants in the Belgian sample ($n = 395$) consisted of 54% females and 35% males with ages ranging from 16-21 ($M = 17.49$, $SD = .87$). The Luxembourgish sample is smaller with only 181 participants ranging in age from 16 to 75 ($M = 33.61$, $SD = 12.90$) with 68% female and 32% male participants. Finally, the French sample ($n = 663$) was 42% male and 58% female with ages ranging from 13 to 21 ($M = 16.59$, $SD = .88$).

Measures

Career Adapt-Abilities Scale (CAAS). The French translation of the CAAS research form contains a larger pool of items consisting of 11 items per scale for concern, control, curiosity, and confidence (Savikas & Porfeli, 2012). Participants responded to each item on a scale from 1 (*not a strength*) to 5 (*greatest strength*). As the items for the international form 2.0 were drawn from the research form item pool, it was possible to create total scores per dimension for each participant that correspond to those of the CAAS international form 2.0. Reliabilities of the research form (44 items) are .93 for adapt-abilities, .81 for concern, .81 for control, .81 for curiosity and .83 for confidence.

Translations

The CAAS research form was translated into French by Francophone career counseling experts in France, Belgium, and Switzerland, and then back-translated into English. Agreement

on the final translation was reached through discussion between the original authors of the

English version and the authors of the French version.

Procedure

In France, data were collected by career guidance counselors during school hours; students

were assured of confidentiality and were debriefed after completing the paper-pencil

questionnaires. All students were in their second-to-last year of high school, a grade in which

they were not forced to make career choices. They were recruited from public high schools both

in the general and technological streams in French territories, both in urban and rural areas. In

Liège, Belgium, data were collected in small groups (n = 15-25) of voluntary participants in

selected secondary schools, and targeted students in their last year of general or technological

streams. The questionnaires were administered (paper-pencil) in the classroom after an

information-discussion session on career choice and were immediately returned to the counselor

who organized the session. Data was collected in two primary ways in Switzerland. First,

convenience sampling took place at the Geneva Cité des Métiers where researchers invited

participants in this event to complete the CAAS French research form and another instrument

and return their packet immediately. Participants received a movie ticket for each instrument as

an incentive. Second, psychology bachelor students at the University of Lausanne participating

in a 3-credit statistical laboratory concerning multifactorial methods completed the questionnaire

themselves and then had to recruit six other working people (3 males and 3 females) to complete

the questionnaire. These recruited participants sent the completed questionnaires back to the

researchers directly in a pre-addressed envelope. Participants from Luxembourg were recruited

through an advertisement at the University of Luxembourg as well as classroom presentations

requesting volunteers to participate in a study on adaptive capacities. Volunteers had the option

to request individual feedback and had the chance to win a 100€ gift card from Amazon.

Participants responded to the CAAS French research form to yield data on 44 items measuring adapt-abilities. Using this pool of data, exploratory factor analysis (EFA) was conducted to select 24 items (6 per scale to match the international form 2.0) to develop the CAAS French-language form. EFA was used as a tool for item reduction (Gorsuch, 1997) and various approaches were used to select items. First, the six items with the highest factor loadings per scale were selected (Gorsuch, 1997). Second, items were removed one by one that loaded onto more than one factor, and simultaneously items that failed to load onto any factor were removed (Raubenheimer, 2004). This process was continued until 6 items per scale remained. Third, items were removed based on their potential to improve reliability (Raubenheimer, 2004). Finally, a fourth approach involved selecting and combining items that performed well based on the above criteria. The result of this selection process was five possible options, each with six items per scale. These five options were then compared in terms of reliability, factor loading strength and pattern, as well as congruence coefficients. Based on these comparisons, one option, labeled the CAAS French-language form, was retained for further analysis and subjected to confirmatory factor analysis (CFA) to test the structural validity of the instrument. Item parceling was employed as a technique to increase stability of parameter estimates, improve the variable-to-sample-size ratio, increase the proportion of common variance relative to unique variance, and obtain a more continuous and normal distribution (Bandalos, 2002; Coffman & MacCallum, 2005; Little, Cunningham, Shahar, & Widaman, 2002). Items in both the CAAS French-language form and CAAS international form 2.0 are presented in the Appendix. Finally, a multi-group CFA allowed for the testing of measurement equivalence across the four countries.

Results

Descriptive Statistics

Reliabilities and normality data for the CAAS French- language form and CAAS international form 2.0 are given in Table 1. Overall, alpha values were slightly higher for the CAAS French- language form (α range from .74 to .90) than the CAAS international form 2.0 (α range from .68 to .89). For the CAAS French-language form, skewness values ranged from -.15 to .18 and kurtosis from -.26 to .07. Skewness values ranged from -.35 to .13 and kurtosis from -.09 to .33 for the CAAS international form 2.0. Thus the distributions were similar for both versions and comparable to that found in Savickas and Porfeli (2012). Turning to gender differences, a series of ANOVAs were conducted to explore possible differences (Table 2). Concerning the French-language form, men had significantly higher scores on control, confidence, and adapt-abilities. Concerning the CAAS international form 2.0 in this data (not tabled), men had higher scores on control ($F[1,1658] = 33.09$, $p < .001$, $\eta^2 = .02$), curiosity ($F]1,1658] = 7.02$, $p < .05$, $\eta^2 < .01$), confidence ($F[1,1658] = 14.64$, $p < .001$, $\eta^2 < .01$), and total adaptabilities ($F[1,1658] = 11.82$, $p < .001$, $\eta^2 < .01$). Accordingly, the gender differences on the two versions were quite similar, and of negligible to small amplitude.

Considering age and the CAAS French-language form, age correlated significantly and positively with control ($r = .19$, $p < .01$), curiosity ($r = .22$, $p < .01$), confidence ($r = .11$, $p < .01$), and total adapt-abilities ($r = .17$, $p < .01$). However, all these correlations are of a small size. To explore differences in scores between adolescents (age 16-18, $n = 906$) and adults (age 19-65, $n = 670$), a series of ANOVAs were conducted with these groups representing the median split of the sample (Table 2). Adults showed higher scores than adolescents on all dimensions of adapt-abilities. For the CAAS international form 2.0, small positive and significant correlations were found between age and concern ($r = .06$, $p < .05$), control ($r = .14$, $p < .01$), curiosity ($r = .22$, $p < $

.01), confidence ($r = .15$, $p < .01$), and total adapt-abilities ($r = .18$, $p < .01$). For the international

form 2.0 (not tabled), adults scored higher than adolescents on all the adapt-abilities dimensions:

concern ($F[1,1574] = 31.98$, $p < .001$, $\eta^2 = .02$), control ($F[1,1574] = 34.62$, $p < .001$, $\eta^2 = .02$),

curiosity ($F[1,1574] = 124.37$, $p < .001$, $\eta^2 = .07$), confidence (Welch's $F[1,1574] = 59.54$, $p <$

.001, $\eta^2 = .04$), and adaptabilities ($F[1,1574] = 93.49$, $p < .001$, $\eta^2 = .06$).

Principle Components Analysis

Table 3 shows the factor loadings for both the CAAS French-language form and CAAS

international form 2.0. After equamax rotation, four factors were specified to correspond with the

four sub-scales of concern, control, curiosity, and confidence. For the CAAS French-language

form these four factors explained 51% of the total variance. The first five eigenvalues were 7.56,

1.82, 1.58, 1.28, and .98. The first five eigenvalues for the CAAS international form 2.0 were

7.07, 1.79, 1.36, 1.19, and 1.00, with the first four factors explaining 47% of the total variance.

Factor loadings were slightly higher, the secondary loadings slightly lower, and the four-factor

solution explained slightly more variance for the CAAS French-language form compared to the

CAAS international form 2.0. For both the CAAS French-language form and CAAS

international form 2.0 the correlations between sub-scales and the components scores were

inspected. One-to-one associations were observed with correlations ranging from .85 to .92 for

the CAAS French-language form and from .87 to .93 for the CAAS international form 2.0.

The loading matrix of the CAAS French-language form was compared across the four

countries, between men and women, and between adolescents (age 16-18) and adults (age 19-65)

by calculating total congruence coefficients (CCs). CCs higher than .90 indicated an overall high

structural equivalence and those below .80 indicated an overall poor structural equivalence

(Rossier, Hansenne, Baudin, & Morizot, 2012a). The results indicated high structural

equivalence of the CAAS French-language form with country comparisons ranging from .92 to

.97 (*Mdn* =.94) and age and gender comparisons of CC = .97. The results for the CAAS

international form 2.0 were similar, although slightly lower, with cross-country comparisons

resulting in CCs ranging from .87 to .93 (*Mdn* =.90). The CCs for age and gender comparisons

were .93 and .96, respectively.

Confirmatory Factor Analyses

CFAs with maximum likelihood rotation were performed using AMOS version 19

(Arbuckle, 2010) to assess the structural validity of the CAAS French-language form and

compare this with the CAAS international form 2.0 (in this sample). In order to assess model fit,

various goodness-of-fit indices were considered; $\chi 2$ per degree of freedom ($\chi 2$/df), the goodness

of fit index (GFI), the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root

mean square error of approximation (RMSEA; Cheung & Rensvold, 2002; Fan, Thompson, &

Wang, 1999; Vandenberg & Lance, 2000). A model is considered to have an acceptable fit if the

χ^2/df is equal to or below 3, if the GFI, CFI, TLI values are about .90 or above, and a RMSEA of

about .05 or less would indicate a close fit (Hu & Bentler, 1999). A hierarchical model was

considered with four second-order variables (concern, control, confidence, and curiosity) and one

third-order latent construct: adapt-abilities.

Considering the CAAS French-language form, the results (Table 4) indicated a moderate

degree of model fit with GFI, CFI, TLI values close to .90, RMSEA below .08, and a χ^2/df of

8.66. On the whole, these results only were slightly less good than the model fit statistics for the

CAAS international form 2.0. The standardized loadings for the CAAS French-language form

ranged from .56 to .73 (*Mdn* = .61) for the items, and from .77 to .88 (*Mdn* = .81) for the second-

order variables. These loadings were comparable to and even slightly better than those of the

CAAS international form 2.0, with item loadings ranging from .46 to .72 (*Mdn* = .58) and from

.69 to .89 (*Mdn* = .82) for the second-order variables. Our results are comparable to the Savickas

and Porfeli's (2012) for the CAAS international form 2.0.

Two additional models that utilized item parceling were tested (Bandalos, 2002; Little et

al., 2002). Three homogenous parcels per scale were created by pairing items with the highest

correlations, and then using the mean score of the two items in the analysis (Coffman &

MacCallum, 2005; Rogers & Schmitt, 2004). This technique provided some improvement on the

model fit, as seen in Table 4. Standardized item weights for the CAAS French-language form

ranged from .58 to .83 (*Mdn* = .70) and loadings from second- order to third-order constructs

between .77 and .91 (*Mdn* = .83). For the CAAS international form 2.0, item loadings ranged

from .64 to .76 (*Mdn* = .68), and the second-order constructs loaded onto the third-order

constructs with a range of .71 to .93 (*Mdn* = .84).

Multi-Group CFA

In order to assess the measurement equivalence of the CAAS French-language form

across four different Francophone countries, a multi-group CFA was conducted. Tests of

measurement equivalence focus on aspects of observed variables and address the relationships

between measured variables and latent constructs. Of interest here are factor loadings, intercepts

and residual variances; but often invariance of residual variances (for both the items and second-

order constructs) are not tested (Brown, 2006; Byrne & van de Vijver, 2010). There is a lack of

consensus as to the order of testing for invariance, as well as to the nomenclature used, and thus

we followed the recommendations of Vandenberg and Lance (2000). Along with overall model

fit of each model, the changes in model fit statistics were also inspected (Cheung & Rensvold,

2002; Vandenberg & Lance, 2000). The change in CFI should be less than .01 (Byrne & van de

Vijver, 2010; Cheung & Rensvold, 2002) and some authors have used ΔRMSEA < .05 (e.g.,

Savickas & Porfeli, 2012), although no cut-off was provided (Vandenberg & Lance, 2000). The

question becomes whether the constrained model represents a significant worsening in fit as each

subsequent model corresponds to a different type of invariance test (Vandenberg & Lance,

2000).

Configural invariance, also called "equal form" invariance, refers to the comparability of

the factors structure and requires that the same number of factors and the same factor loading

pattern, and is evident across groups (Brown, 2006). In this stage, no equality constraints with

reference to factor loadings were imposed, and this model provided the baseline for subsequent

model comparisons (Model 1; Byrne & van de Vijver, 2010). Metric invariance implies the

equivalence of factor loadings, and these factor loadings are constrained to be equal across

samples (Brown, 2006; Byrne & van de Vijver, 2010). This entailed constraining the

regression/measurement weights from each item to the relevant factor to be equal (Model 2a), as

well as constraining the structural weights from each factor (2nd order) to the third-order

construct (Model 2b). Scalar invariance is a test of the equivalence of intercepts and requires that

the intercepts be constrained to be equal (Brown, 2006; Byrne & van de Vijver, 2010). In Model

3a, the measurement intercepts (i.e. intercepts of the items) were constrained, and in Model 3b

the intercepts of the second-order factors were constrained.

Table 5 contains the results of the measurement equivalence testing for the CAAS

French-language form considering three parcels per each second-order variable. The results

indicated that scalar invariance in terms of measurement intercepts was reached across countries

with CFI and TLI at .90 and RMSEA at .04. Inspection of the $\Delta\chi2(\Delta df)$, ΔCFI and ΔRMSEA

indicated that the changes in goodness-of-fit indices were acceptable, with the possible exception

of ΔCFI being slightly above the recommended .01 limit. Concerning the CAAS international form 2.0 in this data (not tabled), the results indicated that full scalar invariance was supported with the following overall model-fit statistics, χ^2/df = 3.08, CFI and TLI = .91 and RMSEA =.035. In our results, ΔRMSEA was always below .05, and ΔCFI was below .01 with the exception of the change from the M3a (measurement intercepts) to M3b (structural intercepts).

Country Differences Controlling for Age and Gender

Considering the effect of age and gender in the total sample, country differences were assessed using ANCOVAs. After adjusting for the effects of age and gender on the CAAS French-language form, country differences were significant for concern (F[3,1618] = 19.11, $p <$ .001, η^2 = .03), control (F[3,1618] = 14.01, $p <$ .001, η^2 =.02), curiosity (F[3,1618] = 24.30, $p <$ .001, η^2 =.04) and confidence (F[3,1618] = 8.90, $p <$ .001, η^2 =.02), as well as total adaptabilities (F[3,1618] = 24.72, $p <$ .001, η^2 =.04). Consistently the mean scores were highest for Luxembourg, followed by Switzerland, Belgium, and France, except for curiosity and confidence where the French scored slightly higher than the Belgians. Although these results could be attributed to the cultural context within the four countries, the age composition of the samples should be considered; the French and Belgian samples contained young participants, whereas the Swiss and Luxembourgish samples contained older participants.

When the comparison was restricted to Switzerland and Luxembourg only, the effect of the country variable on differences in adapt-abilities scores became non-significant. If only French and Belgians were compared with each other, the only country effect which remained was for the concern scale, but this effect was small (F[1,971] = 10.58, $p <$ .001, η^2 = .01). When a subsample of adults was selected, aged between 35-55 (resulting in participants from only Switzerland and Luxembourg) there were no country differences. When only younger

participants were selected (16-18 year olds) only France, Switzerland, and Belgium were

represented. The country differences in total mean scores on the adapt-abilities dimensions

remained with the exception of a non-significant difference for confidence. After adjusting for

the effects of age and gender, country differences were significant for concern ($F[2,894] = 13.77$,

$p < .001$, $\eta^2 = .03$), control ($F[2,894] = 9.40$, $p < .001$, $\eta^2 = .02$), curiosity ($F[2,894] = 6.63$, $p <$

$.001$, $\eta^2 = .01$) and total adaptabilities ($F[2,894] = 12.11$, $p < .001$, $\eta^2 = .03$). The country

differences might be explained by the differences in educational systems in these countries.

Discussion

This study reconfirmed that some items that were not included in the CAAS international

form 2.0 function better in the Francophone regions studied. Although only seven items varied in

the two versions, the contents of the items reflected some important differences. For the

Concern scale, a general future orientation seemed to fit better than planning related directly to

goals. On the Control scale, the three items in the CAAS international form 2.0 that were

replaced represented a self-focused orientation (e.g. "making decisions by myself"); the new

items in the CAAS French-language form corresponded more with a general positive view of the

future (e.g. "expecting the future to be good"), perseverance, and learning how to improve

decision making. The items on the Curiosity scale that were changed represented similar content

in both versions, but the items in the CAAS French-language form could be considered as

representing more specific behaviors (e.g. "searching for information about choices I must

make"), rather than general ones (e.g., "exploring my surroundings"). This "searching" item was

the seventh item that worked in all 13 countries but was not used in the international form

because it offered little psychometric gain. Finally, on the Confidence scale, doing challenging

things rather than doing things well seemed to be more important. Again, this "doing" item was

the seventh item for the confidence scale in the international study which could have been

included. Further explanations of the differences in item content could be offered by cross-

cultural studies (Matsumoto & Yoo, 2006). Notably, the selection of these items allows for an

improvement in reliability. The structures of both the CAAS International form 2.0 and CAAS

French-language form are replicable in the countries of Switzerland, Belgium, Luxembourg, and

France. Indeed, clear evidence for metric invariance and scalar invariance were provided.

Cross-Cultural Utility of Adapt-Abilities

The results of the measurement invariance tests indicated that participants in the four

countries have the same conceptual framework for understanding adapt-abilities, and that the

scale used to measure the items is comparable across countries. Scalar invariance was necessary

to conduct mean comparisons across countries, and would indicate that the measurement scales

have the same origin, suggesting bias-free measurement (van de Vijver & Tanzer, 2004). In

previous work on the CAAS, it was not expected for the CAAS to reach scalar equivalence,

because the construct is psychosocial in nature and not independent from context (Savickas &

Porfeli, 2012). However, the results of the multi-group analysis suggested that meaningful

comparisons in mean scores could be made across these four Francophone countries that have

similar cultures. This suggested that unique norms might be proposed for these four countries,

but that age also should be taken into account. Further studies with culturally more different

Francophone countries might give more information about the impact of the cultural setting on

career adapt-abilities.

Adapt-Abilities: An Argument for Activation

Country differences were significant only when the sample was restricted to adolescents,

which suggests that there is something particular about this life-stage in each country that

prompts these differences. We propose that differences in educational systems across the four

countries may provide an explanation. Importantly, Savickas and Porfeli (2012) indicated that

"psychosocial constructs, such as adaptability, are highly sensitive to context and age" (p. 666),

influencing us to posit that educational system differences may contribute to mean score

differences. Adolescents also are still in the stage of developing possible career selves, and

exploring many possible options (Guichard, 2003; Guichard, Poyaud, de Calan, & Dumora,

2012). In Luxembourg and Switzerland, early vocational choices (before the age of 16) are

requested for a large part of the population due to the dual vocational training system that

combines apprenticeships in a company with training in a professional school. In Belgium and

France, after compulsory schooling, most students continue their education in a high school.

Moreover, preliminary results (Maggiori et al., 2012) suggested that career adapt-abilities

are resources that people might activate in some specific situations, such as being unemployed,

and that adapt-ability levels may change with the duration of unemployment. Job loss, an

imminent career transition, and the transition from work to retirement also prompted the display

of adapt-abilities (Ebberwein et al., 2004; McMahon et al., 2012).

Limitations

Despite our interesting findings, our country samples are not equal; this may increase the

chances of multivariate non-normality, which violates the assumption required for CFA (Byrne

& van de Vijver, 2010). However, Cheung and Au (2005) argued that smaller sample sizes for a

particular country should not matter, as long as the overall sample size is sufficiently large. Next,

the use of various estimation methods in CFA has differing impacts on model fit statistics (Fan et

al., 1999). The consideration of fit indices other than chi-square may be considered a limitation.

However, our choice of goodness-of-fit indices, including both chi-square and other indices, was

in agreement with common approaches (Vandenberg & Lance, 2000) and gave us confidence in the adequacy of our model-fit results. RMSEA seems most sensitive to model misspecification and less influenced by estimation methods, and CFI is minimally influenced by sample size (Fan, Thompson, & Wang, 1999). Item parceling techniques can have a differential impact on model fit, but the chosen parceling technique provided more accurate parameter estimates and was more sensitive to model misspecification than other techniques (Rogers & Schmitt, 2004).

Finally, the age distribution of the sample is a limitation, resulting in a confound between age and country differences. Clearly there is a need to repeat this kind of analysis in more representative samples. However, the age distribution of the sample did allow us to replicate the factor structure (CCs) in different age groups, showing that it is viable to test adapt-abilities in adolescent samples. Further studies about the development of career adapt-abilities should certainly be conducted using other adolescent samples.

Implications for Practice

Given the preponderance of recent research on the subject of adapt-abilities and the CAAS used to measure them, school guidance and other career practitioners can start by administering the instrument in order to explore the starting points for the interventions that they plan. School guidance personnel and career counselors are in unique positions to help clients activate all four career adapt-abilities (i.e., concern, control, curiosity, and confidence) through direct interventions and the use of homework assignments. Generally, these adapt-abilities could be activated through conversations about their meanings and applications, through activities assigned during and outside of sessions, and through role-plays. For adolescents, career guidance lessons can be used to inspire students' curiosity in the world of work, concern for their future careers in a global sense, control by helping students search for more specific careers

information in line with their interests and abilities, and building confidence in their abilities to problem solve and make career decisions.

For adults, given that career adapt-abilities are at their highest within a four to ten-month period after job loss (Maggiori et al., 2012), a real window of opportunity exists for helping clients to activate their personal resources and career adapt-abilities in the career counseling setting. In addressing the meaning of the four adapt-abilities through conversation, clients can become more aware of their own strategies for enhancing their natural inclinations towards career concern, control, curiosity, and their own confidence in making career decisions. Then, career counselors can design activities that fit with the client's cultural and individual context in order to bolster areas of adapt-abilities that present the greatest concerns. For instance, various Internet and government-issued programs can be explored during or outside of sessions in order to increase clients' curiosity about the ever-changing world of work in a highly global economy. For career transitioners, career concern may be addressed by considering the meaning that clients wish to realize in their new roles, contexts, or careers as they explore new career options. A greater sense of control and confidence can be inspired and bolstered through the use of role-plays in the career counseling setting. Additionally, homework activities given to clients can further reinforce in-session discussions and role-plays to help clients interact with others in the real world-of-work context. These activities may include making cold calls to potential employers, asking for pre-interviews to learn more about a company's philosophy and management style, and contacting others within their professional and personal networks to learn about job openings or the skills needed to compete in current job markets within the sectors that interest them.

Conclusion

Researchers and practitioners have the opportunity to use the items from the CAAS international form 2.0, as well as the CAAS French-language form, resulting in a 31-item scale. Using both sets of items would allow for agreement with measurement of adapt-abilities in different countries that use the international form 2.0, but also would contribute to more accurate measurement of adapt-abilities in Francophone countries. Measurement of adapt-abilities is definitely interesting and useful, but even more interesting is the possibility that adapt-abilities may be developed and activated through various interventions. Career adapt-abilities are important resources for navigating the ever-changing world of work throughout the professional trajectory and at the intersection of various life roles.

References

Arbuckle, J. L. (2010). *Amos* (Version 19.0) [Computer Program]. Chicago, IL: SPSS.

Bandalos, D. L. (2002). The effects of item parceling on goodness-of-fit and parameter estimate

bias in structural equation modeling. *Educational Psychology Papers and Publications.*

Paper 65. Retrieved from http://digitalcommons.unl.edu/edpsychpapers/65

Brown, T. A. (2006). *Confirmatory factor analysis for applied research.* New York, NY:

Guilford Press.

Byrne, B. M., & van de Vijver, F. J. (2010). Testing for measurment and structural equivalence

in large-scale cross-cultural studies: Addressing the issue of nonequivalence.

International Journal of Testing, 10, 107-132. doi:10.1080/15305051003637306

Cheung, M. W., & Au, K. (2005). Applications of multilevel structural equation modeling to

cross-cultural research. *Structural Equation Modeling: A Multidisciplinary Journal, 12*,

598-619. doi:10.1207/s15328007sem1204_5

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing

measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal, 9*,

233-255. doi:10.1207/S15328007SEM0902_5

Coffman. D. L., & MacCallum, R. C. (2005). Using parcels to convert path analysis models into

latent variable models. *Multivariate Behavioral Research, 40*, 235-259.

doi:10.1207/s15327906mbr4002_4

Ebberwein, C. A., Krieshok, T. S., Ulven, J. C., & Prosser, E. C. (2004). Voices in transition:

Lessons on career adapt-ability. *The Career Development Quarterly, 52*, 292-308.

doi:10.1002/j.2161-0045.2004.tb00947.x

Fan, X., Thompson, B., & Wang, L. (1999). Effects of sample size, estimation methods, and

model specification on structural equation modeling fit indexes. *Structural Equation*

Modeling: A Multidisciplinary Journal, 6, 56-83. doi:10.1080/10705519909540119

Gorsuch, R. L. (1997). Exploratory factor analysis: Its role in item analysis. *Journal of*

Personality Assessment, 68, 532-560. doi:10.1207/s15327752jpa6803_5

Guichard, J. (2003). Career counseling for human development: An international perspective.

The Career Development Quarterly, 51, 306-321.

doi:10.1002/j.2161-0045.2003.tb00612.x

Guichard J. (2009). Self-constructing. *Journal of Vocational Behavior, 75*, 251-258.

doi:10.1016/j.jvb.2009.03.004

Guichard, J., Pouyaud, J., de Calan, C., & Dumora, B. (2012). Identity construction and career

development interventions with emerging adults. *Journal of Vocational Behavior, 81*, 52-

58. doi:10.1016/j.jvb.2012.04.004.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis:

Conventional criteria versus new alternatives. *Structural Equation Modeling: A*

Multidisciplinary Journal, 6, 1-55. doi:10.1080/10705519909540118

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to

parcel: Exploring the question, weighing the merits. *Structural Equation Modeling: A*

Multidisciplinary Journal, 9, 151-173. doi:10.1207/S15328007SEM0902_1

Maggiori, C., Johnston, C., & Massoudi, K. (2012, October). The impact of adapt-abilities on

    professional characteristics and well-being in representative sample of adults living in

    Switzerland. In A. Freund (Chair), *Personal adaptation to work challenges: The impact*

    of individual resources and subsequent well-being outcomes. Symposium conducted at

    the meeting of the International Association of Educational and Vocational Guidance

    Conference, Mannheim, Germany.

Matsumoto, D., & Yoo, S. H. (2006). Toward a new generation of cross-cultural research.

    Perspectives on Psychological Science, 1, 234-250.

    doi:10.1111/j.1745-6916.2006.00014.x

McMahon, M., Watson, M., & Bimrose, J. (2012). Career adaptability: A qualitative

    understanding from the stories of older women. *Journal of Vocational Behavior, 80*, 762-

    768. doi:10.1016/j.jvb.2012.01.016

Pouyaud, J., Vignoli, E., Dosnon, O., & Lallemand, N. (2012). Career adapt-abilities scale-

    France form: Psychometric properties and relationships to anxiety and motivation.

    Journal of Vocational Behavior, 80, 692-697. doi:10.1016/j.jvb.2012.01.021

Raubenheimer, J. (2004). An item selection procedure to maximize scale reliability and validity.

    SA Journal of Industrial Psychology, 30, 59-64. Retrieved from

    http://www.sajip.co.za/index.php/sajip

Rogers, W. M., & Schmitt, N. (2004). Parameter recovery and model fit using multidimensional

    composites: A comparison of four empirical parceling algorithms. *Multivariate*

    Behavioral Research, 39, 379-412. doi: 10.1207/S15327906MBR3903_1

Rossier, J., Hansenne, M., Baudin, N., & Morizot, J. (2012a). Zuckerman's revised alternative

    five-factor model: Validation of the Zuckerman-Kuhlman-Aluja Personality

    Questionnaire in four French-speaking countries. *Journal of Personality Assessment*, *94*,

    358-365. doi:10.1080/00223891.2012.657024

Rossier, J., Zecca, G., Stauffer, S. D., Maggiori, C., & Dauwalder, J. P. (2012b). Career adapt-

    abilities scale in a French-speaking Swiss sample: Psychometric properties and

    relationships to personality and work engagement. *Journal of Vocational Behavior, 80*,

    734-743. doi:10.1016/j.jvb.2012.01.004

Savickas, M. L. (1997). Adaptability: An integrative construct for life-span, life-space theory.

    The Career Development Quarterly, 45, 247-259.

    doi:10.1002/j.2161-0045.1997.tb00469.x

Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In

    D. Brown (Ed.), *Career choice and development* (pp. 149-205). San Francisco, CA:

    Jossey-Bass.

Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown & R. W.

    Lent (Eds.), *Career development and counseling: Putting theory and research to work*

    (pp. 42-70). Hoboken, NJ: Wiley.

Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J. P., Duarte, M. E., Guichard, J., Soresi, S., …

    van Vianen, A. E. M. (2009). Life designing: A paradigm for career construction in the

    21st century. *Journal of Vocational Behavior, 75*, 239-250. doi:10.1016/j.jvb.2009.04.004

Savickas, M. L., & Porfeli, E. J. (2012). The Career Adapt-Abilities Scale: Construction,

    reliability, and measurement equivalence across 13 countries. *Journal of Vocational*

    Behavior, 80, 661-673. doi:10.1016/j.jvb.2012.01.011

Soresi, S., Nota, L., & Ferrari, L. (2012). Career adapt-abilities scale-Italian form: Psychometric

   properties and relationships to breadth of interests, quality of life, and perceived barriers.

   Journal of Vocational Behavior, 80, 705-711. doi:10.1016/j.jvb.2012.01.020

Super, D. E. (1957). *The psychology of careers.* New York, NY: Harper & Row.

Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance

   literature: Suggestions, practices, and recommendations for organizational research.

   Organizational Research Methods, 3, 4-70. doi:10.1177/109442810031002

van de Vijver, F., & Tanzer, N. K. (2004). Bias and equivalence in cross-cultural assessment: An

   overview. *Revue Européenne de Psychologie Appliquée* [European Journal of Applied

   Psychology], *54,* 119-135. doi:10.1016/j.erap.2003.12.004.

Van Vianen, A. E. M., Klehe, U. C., Koen, J., & Dries, N. (2012). Career adapt-abilities scale –

   Netherlands form: Psychometric properties and relationships to abilities, personality, and

   regulatory focus. *Journal of Vocational Behavior, 80*, 716-724.

   doi:10.1016/j.jvb.2012.01.002

Table 1

Descriptives of the CAAS French-language Form and CAAS international form 2.0

	CAAS French-language form					CAAS international form 2.0				
	α	*Mean*	*SD*	*K*	*S*	α	*Mean*	*SD*	*K*	*S*
Concern	.81	21.36	4.05	-.135	-.154	.79	21.05	3.98	.071	-.149
Control	.74	21.33	3.93	-.113	-.161	.68	22.60	3.63	.027	-.352
Curiosity	.77	20.70	3.87	-.072	.065	.76	20.67	3.87	-.019	.068
Confidence	.83	22.15	3.87	-.261	-.004	.81	22.23	3.72	-.087	-.028
Adaptability	.90	85.54	12.54	.077	.180	.89	86.56	12.05	.325	.128

$N = 1,707$

Table 2

ANOVA results for the CAAS French-language form– Age and Gender comparisons

	Males		Females						Adolescents		Adults					
Dimension	Mean	SD	Mean	SD	F	df	p	η^2	Mean	SD	Mean	SD	F	df	p	η^2
Concern	21.19	4.20	21.47	3.95	2.10*	1,1421	n.s	.001	20.95	4.04	21.98	4.02	25.51	1,1574	<.001	.016
Control	22.02	3.80	20.83	3.94	38.60	1,1658	<.001	.022	20.63	3.84	22.33	3.81	76.31	1,1574	<.001	.046
Curiosity	20.88	3.90	20.57	3.85	2.51	1,1658	n.s	.001	19.87	3.62	21.97	3.79	125.15	1,1574	<.001	.073
Confidence	22.82	3.85	21.64	3.81	37.74	1,1658	<.001	.022	21.68	3.90	22.79	3.71	32.90	1,1574	<.001	.020
Adapt-abilities	86.91	12.69	84.53	12.36	14.65	1,1640	<.001	.009	83.12	11.70	89.08	12.69	93.03	1,1574	<.001	.055

Note. *Assumption of homogeneity of variance was violated, therefore the Welch statistic is reported

Table 3

Factor Structure for the CAAS French-language form and CAAS international form 2.0

CAAS French-language form					CAAS international form 2.0				
CAAS	COF	CON	CUR	COL	CAAS	COF	CON	CUR	COL
COF11	**.72**	.08	.03	.21	COF08	**.74**	.18	.21	.14
COF08	**.70**	.23	.22	.12	COF07	**.73**	.22	.22	.09
COF09	**.68**	.09	.13	.35	COF09	**.64**	.09	.15	.37
COF07	**.67**	.26	.22	.10	COF10	**.58**	.10	.20	.32
COF10	**.66**	.08	.20	.25	COF01	**.57**	.20	.10	.24
COF01	**.54**	.21	.19	.19	COF06	**.53**	.27	.22	.04
CON05	.15	**.69**	.07	.33	CON06	.14	**.71**	.14	.06
CON02	.18	**.69**	.12	.08	CON05	.20	**.69**	.09	.19
CON06	.10	**.69**	.18	.09	CON02	.18	**.68**	.11	.06
CON03	.09	**.67**	.09	.08	CON03	.09	**.68**	.04	.11
CON11	.17	**.59**	.22	.04	CON11	.15	**.61**	.13	.17
COL11	.21	**.57**	.21	.37	CON07	.14	**.49**	.33	.16
CUR05	.13	.01	**.72**	.23	CUR05	.12	.11	**.77**	.12
CUR04	.03	.21	**.69**	.12	CUR06	.17	.10	**.66**	.16
CUR06	.21	.01	**.66**	.15	CUR04	.04	.31	**.62**	.07
CUR07	.15	.33	**.58**	-.01	CUR01	.23	-.01	**.60**	.18
CUR09	.30	.27	**.52**	.12	CUR02	.32	.13	**.55**	.17
CUR08	.40	.16	**.45**	.08	CUR08	.35	.12	**.42**	.19
CON08	.16	.01	.00	**.76**	COL06	.19	.07	.13	**.71**
CON04	.16	.37	-.09	**.64**	COL01	.05	.20	.08	**.67**
COL12	.21	.06	.30	**.58**	COL05	.18	.03	.19	**.59**
COL06	.29	.02	.18	**.53**	CON08	.22	.06	.07	**.52**

| COL09 | .07 | .22 | .24 | **.53** | COL03 | .05 | .15 | .26 | **.50** |
| COL08 | .14 | .28 | .39 | **.45** | COL09 | .19 | .26 | .12 | **.39** |

Table 4

Confirmatory Factor Analyses of the CAAS French-language form and CAAS international form 2.0

Career Adapt-Abilities Scale	χ^2	df	χ^2/df	p	GFI	CFI	TLI	RMSEA
CAAS French-language form	2148.663	248	8.664	<.001	.897	.861	.846	.067
CAAS international form 2.0	1575.305	248	6.3522	<.001	.924	.888	.875	.056
CAAS French-language (parcels)	433.919	50	8.6783	<.001	.957	.948	.932	.067
CAAS international form 2.0 (parcels)	208.660	50	4.1732	<.001	.980	.976	.968	.043

Table 5

Multigroup Analysis – CAAS French-language form

Career Adapt-Abilities Scale – Item Parcels	$\chi2$	df	χ^2/df	p	CFI	TLI	RMSEA	$\Delta\chi2(\Delta df)$	ΔCFI	$\Delta RMSEA$
Model 1 Unconstrained (Configural Invariance)	706.35	200	3.532	<.001	.933	.912	.039			
Model 2a Measurement Weights (Metric Invariance)	751.94	224	3.357	<.001	.931	.918	.037	45.58(24)	-.002*	-.002*
Model 2b Structural Weights (Metric Invariance)	773.33	233	3.319	<.001	.929	.920	.037	21.39(9)	-.002*	-.002*
Model 3a Measurement Intercepts (Scalar Invariance)	969.09	257	3.771	<.001	.906	.904	.040	195.76(26)	-.023	.003*
Model 3b Structural Intercepts (Scalar Invariance)	1150.29	269	4.276	<.001	.884	.886	.044	181.20(12)	-.022	.004

$\Delta CFI < 0.01$ and $\Delta RMSEA < 0.05$

Appendix

Items in the CAAS French-language form and CAAS International form 2.0

French-language Form	International form 2.0
Concern	
Me préparer à mon avenir / Preparing for the future	Me préparer à mon avenir / Preparing for the future
Réfléchir à ce que sera mon avenir / Thinking about what my future will be like	Réfléchir à ce que sera mon avenir / Thinking about what my future will be like
Devenir conscient des choix de formation et de profession que je dois faire / Becoming aware of the educational and career choices that I must make	Devenir conscient des choix de formation et de profession que je dois faire / Becoming aware of the educational and career choices that I must make
Me rendre compte que mes choix d'aujourd'hui engagent mon avenir / / Realizing that today's choices shape my future	Me rendre compte que mes choix d'aujourd'hui engagent mon avenir / Realizing that today's choices shape my future
Me sentir concerné par mon parcours professionnel / Concerned about my career	Me sentir concerné par mon parcours professionnel / Concerned about my career
Prendre en charge mon avenir / Taking charge of my future	*Planifier la façon d'atteindre mes objectifs / Planning how to achieve my goals*
Control	
Rester optimiste / Keeping upbeat	Rester optimiste / Keeping upbeat
Avoir une vision positive de mon futur / Expecting the future to be good	*Prendre moi-même décisions / Making decisions by myself*
Trouver la force de garder le cap / Finding the strength to keep going	*Défendre mes convictions / Sticking up for my beliefs*
Compter sur moi-même / Counting on myself	Compter sur moi-même / Counting on myself
Faire ce qui est bon pour moi / Doing what's right for me	Faire ce qui est bon pour moi / Doing what's right for me
Apprendre à prendre les meilleures décisions possibles / Learning how to make better decisions	*Prendre la responsabilité de mes actes / Taking responsibility for my actions*
Curiosity	

Observer différentes manières de faire les choses / Observing different ways of doing things

Explorer les options avant de faire un choix / Investigating options before making a choice

Aller au fond des questions que je me pose / Probing deeply into questions I have

Rechercher de l'information à propos des choix que j'ai à faire / Searching for information about choices I must make

Envisager les alternatives qui s'offrent à moi / Considering my alternatives

Devenir curieux de nouvelles opportunités / Becoming curious about new opportunities

Observer différentes manières de faire les choses / Observing different ways of doing things

Explorer les options avant de faire un choix / Investigating options before making a choice

Aller au fond des questions que je me pose / Probing deeply into questions I have

Explorer mon environnement / Exploring my surroundings

Chercher les occasions de progresser en tant que personne / Looking for opportunities to grow as a person

Devenir curieux de nouvelles opportunités / Becoming curious about new opportunities

Confidence

Relever des défis / Doing challenging things

Développer mes capacités / Working up to my ability

Surmonter les obstacles / Overcoming obstacles

Acquérir de nouvelles compétences / Learning new skills

Résoudre des problèmes / Solving problems

Me montrer performant dans ce que j'ai à faire / Performing tasks efficiently

Prendre soin de bien faire les choses/ Taking care to do things well

Développer mes capacités / Working up to my ability

Surmonter les obstacles / Overcoming obstacles

Acquérir de nouvelles compétences / Learning new skills

Résoudre des problèmes / Solving problems

Me montrer performant dans ce que j'ai à faire / Performing tasks efficiently

Note. Items in italics are different in the two versions

Highlights

• Describes the development of a new French form of the Career Adapt-Abilities Scale.

• Validation of this French form adopting a cross-national multi-centric approach.

• Of interest for practitioners using interventions based on the life design paradigm.