# Occupational Change Readiness at Career Transition Points in Those at the Beginning of Their Working Life<sup>1</sup>

Kathleen Otto\*, Dorothea E. Dette-Hagenmeyer\*\* & Claudia Dalbert\*\*\*

\* University of Leipzig, Germany

\*\* Ludwigsburg University of Education, Germany

\*\*\* Martin Luther University of Halle-Wittenberg, Germany

#### Abstract

In times of patchwork biographies, it has become commonplace for people to move from one occupation to another in the course of their working lives. In two cross-sectional studies we investigated the occupational change readiness of school students who are approaching the transition from school to vocational training (Study 1), and apprentices who are approaching the transition to their first "real" job (Study 2).

Our results are in line with the hypotheses that a strong occupational identity and high job satisfaction make young people less willing to change occupations, whereas uncertainty tolerance and high (change-related) self-efficacy are resources that strengthen occupational change readiness in those at the beginning of their working life.

#### Keywords

occupational change - uncertainty tolerance - self-efficacy - apprentices - school students

One of the main developmental tasks in adolescence is to establish an occupational identity (e.g., Havighurst, 1972). Young people approaching the difficult transition from school to work need to choose a job, apply for a place on a training program, and plan their future careers. Overall, careers have become less predictable, less structured, and therefore less secure (Arnold, 2001), a fact that might especially put adolescents under considerable pressure. Today's regular career pattern may be characterized as a fluctuation between being in and out of a job and by transitions to different occupations. In such a work context, (occupational) mobility and flexibility (see, e.g., Sullivan & Arthur, 2006) become important assets for coping with the demands of the labor market. Occupational change readiness is defined as "the readiness to work in an occupation other than that for which one qualified and / or in which one has worked to date" (Otto, Dette-Hagenmeyer & Dalbert, 2010, p. 263). Although there are many potential benefits to understanding occupational change readiness in those at the beginning of their career to our knowledge the few studies to date have focused exclusively on adult samples (Blau, 2000; Ostroff & Clark, 2001; Otto & Dalbert, 2012 a; Otto et al., 2010; West, Nicholson & Rees, 1987).

We do know that younger people are more flexible in temporal terms and more mobile with respect to their places of work and residence (e.g., Eby & Russel, 2000). But little is known about whether those at the very beginning of their occupational careers are willing to consider changing occupations in the course of their working lives. Especially interesting are those young people who have not yet entered the labor force. They can be roughly divided into two groups: school students and apprentices. Whereas the former may not yet have any firm career plans, the latter have already decided on an occupation. Both groups face difficult transitions. The school students are approaching what is known as the "first threshold" - the transition from school to vocational training, while the apprentices are approaching the "second threshold" - the transition to their first "real" job. Therefore, we looked at both these groups of beginners. We assume that even school students (ahead of achieving their high school diploma) already have a certain set of vocational goals and also a certain amount of change readiness. This should be

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measurable just as in apprentices and adults. Accordingly, to bridge the gap in research we included both groups in our study.

## **Explaining Occupational Change Readiness**

Ng, Sorensen, Eby and Feldman (2007) proposed a theoretical model explaining different types of job mobility in which they differentiated between change in status (upwards, lateral, downwards) and change in employer (internal change vs. external change to a new employer). While the authors did not consider changing one's occupation, Otto and Dalbert's (2012 a) study on occupational change readiness in full-time and part-time employees lend support for Ng et al.'s conceptual model. In their classification, Ng and colleagues identified (1) structural factors, (2) individual differences, and (3) decisional factors as important determinants of job mobility. Structural factors shape the opportunities for job mobility, individual differences determine preferences for specific types of mobility, and decisional factors determine whether or not a mobility option is executed. As we aimed to focus on those at the beginning of their working life, we neglected structural factors and explored individual differences (i.e. uncertainty tolerance) and decisional factors (i.e. self-efficacy) only. Moreover, we also considered such occupational characteristics that might still be relevant for career starters, namely occupational identity, and job satisfaction.

## Uncertainty Tolerance and Self-Efficacy

In their job mobility model, Ng et al. (2007) predict personality traits, career interests, values, and attachment styles to lead to individual differences in preferences for specific types of mobility. This article focuses on uncertainty tolerance as potential antecedent of occupational change readiness in teenagers. In a rapidly changing work context, young people must be able to adjust to new settings and new task demands within short time frames. Individuals preferring routine work and stable environments may be at a disadvantage. As transactional stress theories would suggest (Lazarus & Folkman, 1984), if a stressor - as occupational changes might be - is perceived as challenging rather than threatening, strain may not necessarily follow. We argue that the personality construct of uncertainty tolerance (Dalbert, 2002; Frenkel-Brunswik, 1949) might help individuals to consider uncertain situations to be a challenge. While persons low in uncertainty tolerance have a tendency to make threatening interpretations of uncertain situations (Dugas et al., 2005) and worry about them (Ladouceur, Gosselin & Dugas, 2000), those high in uncertainty tolerance enjoy being confronted with new challenges (König & Dalbert, 2004), are willing and able to adapt to changing occupational circumstances (Friedel & Dalbert, 2003), and generally tolerate a high amount of uncertainty. Moreover, in former studies it was revealed that the higher the uncertainty tolerance, the higher was the readiness to be geographically mobile (Dette & Dalbert 2005; Otto & Dalbert, 2012 b). In line with these findings, we expected that the more uncertainty tolerant school students and apprentices are, the higher is their occupational change readiness (H1).

According to Ng et al. (2007)'s conceptual model, "after individuals recognize the opportunity for mobility [...] they need to decide whether or not to pursue one particular type of mobility" (2007, p. 376). Thus, over and above individual differences, decisional factors may contribute to explaining occupational change readiness in those at the beginning of working life. In particular, self-efficacy beliefs reflect people's appraisals of their ability to execute a specific behavior (Bandura, 1997) as has been demonstrated in the field of careerrelated relocations already (Eby & Russel, 2000). Moreover, previous longitudinal studies have found changerelated self-efficacy to enhance employee adaptation to processes of organizational change (Jimmieson, Terry & Callan, 2004) and to strengthen people's general willingness to change occupations (Otto et al., 2010). They are also an important factor in the explanation of new behavior (e.g., Bandura, 1977). This might be of importance as school students do not have any work experiences yet. Hence, it is assumed that positive beliefs about the ability to cope with occupational demands are positively associated with occupational change readiness (H2).

#### Identity and Satisfaction with One's Occupation

Developing identity with a specific occupation is one of the most important developmental tasks in adolescence (Erikson, 1976; Havighurst, 1972), and the identification with this occupation later serves as a point of reference for vocational decisions (Heinz, 2002). Moreover, results showed that the more apprentices facing a transition from vocational school to work emphasized the importance of vocational goals, the more likely they were to find a job commensurate with their education and the less likely they were to be unemployed after graduation (Nurmi, Salmela-Aro & Koivisto, 2002). A strong occupational identity may help to ensure an adequate supply of local employees for companies in a flourishing economy, but precisely these attributes may be of limited use to the employees themselves in worsening labor market situations. In such conditions, individuals who are strongly committed to their occupation may find it difficult to stay employed. Research has shown that strong occupational identity decreases

the likelihood of changing occupations (Blau, 2000; Otto et al., 2010). Thus, it is hypothesized that the higher the occupational identity in those at the beginning of their career, the lower is their occupational change readiness (H5).

Furthermore, Blau (2000) as well as Otto et al. (2010) showed that the less satisfied employees are with their job, the more willing they are to consider changing occupations. As *job satisfaction* is defined as a person's evaluation of his or her specific job situation the construct can only be meaningfully assessed in those with work experiences, i.e. apprentices. Accordingly, it is expected that the more satisfied apprentices are with their job, the lower is their occupational change readiness (H4).

## **Empirical Studies**

We investigated our hypotheses in samples of secondary school students ahead of their high school diploma (Study 1) and apprentices ahead of their transition to their first "real" job (Study 2). As several previous studies have shown that global personality traits influence work-related cognitions (e.g., Roberts, Caspi & Moffitt, 2003) and mobility decisions (Ng et al., 2007), we wanted to highlight that the expected associations of uncertainty tolerance, self-efficacy, occupational identity, and job satisfaction with occupational change readiness can still be found when the effects of all five global personality traits were taken into account.

## Study 1: Secondary School Students

After graduating from the intermediate-track Realschule at the age of 16 or 17, students in Germany can either stay in school and prepare for university studies or go into vocational training to qualify for blue- or white-collar jobs (e.g., mechanics or office administrators). Most Realschule students opt for vocational training. The transition from school to the labor market - "the first threshold" - is not always an easy one, however. Young people at this stage need to decide on an occupation and to apply for a place on an appropriate training program. In Germany, in spite of the lack of skilled personnel and a high percentage of vacant apprenticeship positions in 2012 (33.275 vacancies), the number of young people who fail to find an adequate apprenticeship position (overall 15.650) has still been increasing for some years now (Federal Ministry of Education and Research, 2013). As a result, it may be necessary to apply for training programs in various occupations to stand a chance of being accepted in any one of them. Given the nature of modern careers, moreover, it seems reasonable for young people to expect to do different occupations entirely in their future lives.

Sample and procedure. Data were gathered during lessons in 12 intermediate-track secondary schools (*Realschule*) in Eastern Germany. Prior to data collection written consent was obtained from students, parents and teachers. The sample comprised 392 students (n = 195 female) attending the 9th grade. The 9th grade, which is 1 year prior to graduation, is the time when choices about future occupations must be made. Age ranged between 14 and 17 years with a mean age of M = 15.1 (SD = 0.61).

*Measures.* All administered instruments already existed in the sample's native language. For further analyses, we calculated scale scores by averaging across items, but only if no more than one item of a scale was missing. Unless otherwise specified, all scales varied between 1 ("strongly disagree") and 6 ("strongly agree"). Detailed information regarding the descriptive statistics and intercorrelations of the assessed constructs are provided in Table 1.

Global personality traits were measured using a German short form of the NEO-FFI (Costa & McCrae, 1989; German version: Borkenau & Ostendorf, 1993) as developed by Trautwein et al. (2000), which captured neuroticism (sample item: "I often feel tense and jittery";  $\alpha$  = .70), extraversion (sample item: "I like to have a lot of people around me";  $\alpha = .57$ ), openness to experience (sample item: "I am intrigued by the patterns I find in art and nature";  $\alpha = .52$ ), agreeableness (sample item: "I try to be courteous to everyone I meet";  $\alpha = .56$ ), and conscientiousness (sample item: "I have a clear set of goals and work toward them in an orderly fashion";  $\alpha = .67$ ) with six items each. Note, the item scale ranged from 1 ("totally disagree") to 4 ("totally agree"). Due to low item-total correlation one item of the openness scale had to be excluded. Hence, openness consisted of five items only.

As can be seen, only neuroticism yielded a satisfactory internal consistency whereas the other measures showed Cronbach's alphas below the usually desired criterion of .70 (e.g., Nunnally & Bernstein, 1994). However, as alpha is dependent on the length of a scale, and the breadth of the measure, it is important to also consider inter-item correlations particularly for short scales (Streiner, 2003). Clark and Watson (1995) suggested that mean inter-item correlations between .40 and .50 should be yielded for scales measuring very narrow characteristics and between .15 and .20 for scales measuring broad characteristics (which is true for personality traits). This latter criterion was met by extraversion (mean r = .18), openness to experience (mean r = .18), agreeableness (mean r = .18), and conscientiousness (mean r = .26).

*Uncertainty tolerance* was gathered with the Uncertainty Tolerance Scale (Dalbert, 2002; 8 items; sample item: "I like change and excitement";  $\alpha = .63$ , mean r = .22). As two items were deleted due to low item-

Table 1: Statistics and intercorrelations of all assessed constructs for school students of Study 1 and apprentices of Study 2.

	Stu	Study 1	Stue	Study 2											
	Μ	SD	Μ	SD	1	01	3	4	2	9	7	œ	6	10	11
(1) Neuroticism	2.43	0.60	2.84	0.78	ł	44**	.06	54**	.52**	09	04	1	1	30*	03
(2) Extraversion	5.12	0.48	4.39	0.76	-:17**	1	05	.43**	49**	.07	.05	ł	ł	.41**	07
(3) Openness to experience	2.54	0.56	3.57	0.69	.03	.01	ł	.07	20	.01	.08	ł	ł	06	.06
(4) Agreeableness	2.60	0.46	4.22	0.82	17**	.15**	06	ł	27*	14	.02	ł	ł	.54**	04
(5) Conscientiousness	3.01	0.54	3.09	0.71	16**	.25**	.15**	00	ł	21+	07	ł	ł	57**	.14
(6) Uncertainty tolerance	4.28	0.77	3.89	0.59	01	.28**	05	16**	.04	ł	.42**	1	ł	02	.22+
(7) Self-efficacy <sup>#</sup>	4.72	0.71	4.16	1.06	15**	.38**	.17**	.05	.35**	.13**	ł	ł	ł	11	.58**
(8) Strength of voc. goals	4.69	0.74	ł	ł	16**	$.10^{*}$	.14**	07	.27**	.08	.20**	1	ł	ł	I
(9) Voc. training intent	ł	ł	ł	ł	60.	01	18**	00	00.	05	08	02	ł	ł	ł
(10) Job satisfaction	ł	ł	4.47	0.71	I	ł	ł	I	I	ł	I	ł	ł	I	35**
(11) Occ. change readiness	5.29	0.68	5.61	0.83	.03	.04	.02	11*	10	.12*	01	12*	13*	ł	ł
Note. For vocational training intent, 0 = no intention to enter vocational training. 1 = intention to enter vocational training. All other scale values ranged from 1 to 6, with 6 indi- cating strong endorsement of the construct. *Self-efficacy was assessed as self-efficacy in coping with social demands in Study 1, and change-related self-efficacy in Study 2. Voc. = vocational. Occ. = occupational.	$t, 0 = no \dot{n}$	ıtention tı Self-effica	o enter vo cy was as	cational tr sessed as s	aining, 1 = elf-efficacy	intention in coping	n to enter g with soo	vocation ial dema	al trainin, nds in Stu	g. All oth udy 1, an	er scale v d change	alues ran, related se	ged from elf-efficac	t 1 to 6, w y in Stud	ith 6 indi- r 2. Voc. =

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+ p<.05, one-sided test; \*p < .05; \*\*p < .01, two-sided test.

total correlations the scale comprised six items only. Because the students did not yet have occupational experience we assessed *self-efficacy in coping with social demands* (Satow & Mittag, 1999; 8 items; sample item: "I easily find friends after moving to a new school";  $\alpha = .66$ , mean r = .20).

*Occupational identity* was operationalized in terms of strength of vocational goals and vocational training intent. Students were asked to report their two main vocational goals in a free self-report and then to evaluate each goal on 6-point rating scales along three well-established criteria: (a) importance, (b) probability of success, and (c) concreteness (for a review, see Emmons, 1996). These six ratings were then averaged and taken as an indicator for the strength of the vocational goals ( $\alpha = .73$ ). Furthermore, we asked our respondents whether they intended to enter vocational training after leaving school (0 = no; 1 = yes); 85 % answered "yes". Both variables seem to reflect significant features of an evolving occupational identity before entering vocational training.

Finally, *occupational change readiness* was measured by a scale from Dalbert (2004; 10 items; sample item: "I can sometimes imagine myself learning a completely new occupation";  $\alpha = .68$ , mean r = .18).

*Results and discussion.* As expected by our hypotheses, the more uncertainty tolerant the students were (r = .12; H1), and the lower their occupational identity was (H3), the stronger was their occupational change readiness. The latter was indicated by negative associations of intention to enter vocational training (r = ..13) and strength of vocational goals (r = ..12) with occupational change readiness.

To conservatively test our hypotheses and address the incremental validity of the potential antecedents of occupational change readiness, we used hierarchical regression analyses and included the global personality traits as control variables in the first step. Table 2 shows the results of the regression analyses.

Overall only 7 % of the variance was explained by the significant predictors agreeableness and occupational identity. The stronger their intention to enter vocational training ( $\beta$  = -.12), the stronger their vocational goals were ( $\beta$  = -.13), and the more agreeable they were ( $\beta$  = -.12), the less willing the students were to consider occupational changes in the future. Conversely, when only bivariate correlations are considered the more uncertainty tolerant they were, the more they could imagine working in different occupations in the course of their working lives. This result lends support to the notion that uncertainty tolerance is a resource that helps people to cope with the demands of the labor market. However, when global personality traits were also taken into account the significant associa-

tion between uncertainty tolerance and occupational change readiness vanished.

Nevertheless, only a small amount of variance was explained, indicating (a) that other factors may be important at this stage of life and/or (b) that it is difficult to evaluate occupational change readiness of young people who are still at school and have no work experience. The question thus arises of whether it makes sense to investigate occupational change readiness at all in this particular group. However, Lutz (2001) found that 80 % of German school students agree that they will probably have to work in an occupation other than the one for which they qualify, indicating that, even before the transition from school to work, they are already aware of the flexibility required on the modern labor market.

## Study 2: Apprentices

Young people who have made the transition to vocational training and completed an apprenticeship face a new challenge at the "second threshold" - that of finding a job that matches their qualifications. Compared with other countries (e.g., the U.S.: Heckhausen & Tomasik, 2002; for a comparison, see Hamilton & Lempert, 1996) where a trainee is fully integrated in an organization, Germany's dual system of vocational education and training combines off-the-job education in vocational school with on-the-job training. After completing their apprenticeships, young people have to make a second transition to the "real" labor market. At present, less than half of the apprentices (43 %) secure jobs in the companies that trained them, and even in this case the situation is bad as 59 % of them are only employed on a temporary basis (German Trade Union Confederation, 2012). In other words, even apprentices who have successfully negotiated the first threshold have no guarantee of managing the second one. It can thus be assumed that apprentices consider changing occupations sooner or later in their working lives.

Sample and procedure. Data were collected in an Eastern German vocational school. Questionnaires were distributed to apprentices during their off-thejob education. As apprentices across different occupational fields vary in their probability to change their occupation (e.g., Kälin et al., 2000) we tried to guarantee homogeneity by approaching only apprentices training for technical (e.g., electronics engineer) and commercial occupations (e.g., management assistant). The sample consisted of 72 participants (n = 32 female) with an age ranging from 16 to 22 years (M = 17.92; SD = 1.55). The highest achieved educational level was for 3 apprentices a high school diploma after 9 years of education (= Hauptschulabschluss), for 54 a high

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		Schoo (Study	School students (Study 1; N = 392)			Ap] (Stud	Apprentices (Study $2; N = 72$ )	
		Step 1		Step 2		Step 1		Step 2
	В	β <i>p</i>	В	β μ	В	β <i>p</i>	В	β μ
Constant	3.77		4.14		3.11		2.77	
Neuroticism	0.00	.00	-0.01	01	-0.18	17	-0.16	15
Extraversion	0.13	60.	0.09	.06	-0.02	02	-0.00	-00
Openness to experience	0.03	.03	0.03	.02	0.14	.11	0.03	.03
Agreeableness	-0.18	12 *	-0.17	12 *	-0.04	04	0.13	.13
Conscientiousness	-0.16	13 *	-0.11	09	0.25	.21	0.18	.15
Uncertainty tolerance			0.08	60.			0.04	.03
Self-efficacy#			00.00	.00			0.42	.53 ***
Strength of vocational goals			-0.12	13 *			ł	ł
Vocational training intent			-0.27	12 *			ł	ł
Job satisfaction			1	-			-0.40	35 **
$\Delta \ \mathrm{R}^2$		.05 *		.04 **		.04		.41 ***
F	3	2.29 *	2.	2.87 **	0.	0.49	5.	5.52 ***

school diploma after 10 years of education (= Realschulabschluss; educational level of the intermediatetrack *Realschule*; see Study 1), for 3 a diploma allowing entrance to a technical college (= Fachabitur) and for the remaining 12 a diploma allowing entrance to the university (= Abitur).

*Measures.* Global personality traits (Trautwein et al., 2000; neuroticism:  $\alpha = .64$ , mean r = .23; extraversion:  $\alpha = .66$ , mean r = .24; openness to experience:  $\alpha = .58$ , mean r = .19; agreeableness:  $\alpha = .68$ , mean r = .26; conscientiousness:  $\alpha = .67$ , mean r = .25) and uncertainty tolerance (Dalbert, 2002;  $\alpha = .59$ , mean r = .15) were measured using the same scales as in Study 1. Furthermore, as Bandura (1997) recommended that self-efficacy be measured along domain-specific lines in the present context we assessed occupational change self-efficacy (Otto & Dalbert, 2004; 4 items; sample item: "I think I have it in me to change to a new occupation altogether";  $\alpha = .88$ ).

Instead of occupational identity, in the present study job satisfaction was measured by the 7 global items of the Job Descriptive Questionnaire (Neuberger & Allerbeck, 1978; sample item: "I am satisfied with my pay";  $\alpha = .74$ ) developed on the basis of the Job Descriptive Index (Smith, Kendall, & Hulin, 1969). Finally, occupational change readiness was investigated (Dalbert, 2004; 9 items;  $\alpha = .83$ ). Details concerning further descriptive statistics and intercorrelations are provided by Table 1.

*Results and discussion.* In line with our theorizing we found self-efficacy (r = .58; H2) to be positively and job satisfaction (r = -.35; H4) to be negatively associated with occupational change readiness (see Table 1). Uncertainty tolerance (r = .22; H1) correlated with occupational change readiness in the expected direction (one-sided test), but the association was weak.

The regression analysis revealed that a total of 45 % of the variance in occupational change readiness was explained by the significant predictors job satisfaction and change-related self-efficacy (see, Table 2). The less satisfied the apprentices were with their job ( $\beta = -.35$ ), and the more confident they were in their ability to cope with occupational change ( $\beta = .53$ ), the more willing they were to change occupations. Note, job satisfaction proved to play a significant role. In this context, this variable may (also) be understood as reflecting the teenagers' evaluation of their choice of apprenticeship. The less satisfied the teenagers were with their job and hence their chosen apprenticeship, the more willing they were to try a different occupation in the future.

# **General Discussion**

Taking Ng et al. (2007)'s job mobility model as a conceptual framework, we investigated the antecedents of occupational change readiness in two samples of teenagers yet to enter working life. Our findings indicate that the job mobility model by Ng and colleagues is not only applicable to the context of occupational change in adults (see, also Otto et al., 2010) but also in career starters. Specifically, we identified four personality and vocational characteristics capable of boosting occupational change readiness, namely high uncertainty tolerance, strong self-efficacy beliefs, weak occupational identity, and low job satisfaction. Moreover, the findings persisted when controlling for global personality traits.

On a bivariate level, uncertainty tolerance was associated with occupational change readiness in students facing the school-to-work transition. The same pattern was found for the apprentices - though the correlation was weak. This result is in line with earlier findings showing that uncertainty tolerance helps people to cope with occupational demands (e.g., Dette & Dalbert, 2005; Friedel & Dalbert, 2003; König & Dalbert, 2004; Otto & Dalbert, 2010, 2012 a, 2012 b). In competition with alternative predictors, however, uncertainty tolerance did not survive in the prediction models. Moreover as assumed, we found (change-related) self-efficacy to be positively associated with occupational change readiness. In fact, in the apprentices sample change-related self-efficacy proved to be the most important predictor (for comparable results with adult samples, see Otto et al., 2010). The more capable young people about to enter the general workforce feel of dealing with occupational change, the more willing they are to consider it as an option for career development.

Taken collectively, individuals high in uncertainty tolerance tend to see new, uncertain, and complex situations as a welcome challenge. People with high self-efficacy beliefs regarding occupational change are confident that they will be able to cope with this challenge. Both can be seen as indicative of a positively biased *approach motivation*. For career counseling this suggests that young people should be equipped with the necessary resources to face the challenges of uncertain situations. One approach would be to help uncertainty-intolerant teenagers develop a systematic, step-by-step plan for dealing with uncertain vocational situations. Second, young people need to be given greater confidence in their abilities to deal with occupational change. The literature on self-efficacy beliefs (e.g., Bandura, 1997) has shown social learning from coping models and internal attributions of successful management of occupational transitions to be crucial to the development of solid self-efficacy beliefs.

Also vocational characteristics, i.e. occupational identity and job satisfaction proved to be important for the young people facing important transitions. The more satisfied they were with their job or the higher their occupational identity, the less willing they were to consider occupational changes. Some career starters thus seemed to display an avoidance motivation: The study with secondary school students who are approaching the transition from school to vocational training ("first threshold") provided support for the role of occupational identity (operationalized as strength of vocational goals and intention to enter vocational training) even that early in their career paths. In the same vein, job satisfaction proved to predict occupational change readiness for apprentices who are approaching the transition to their first "real" job ("second threshold"); a finding that replicates former research with employees (Blau, 2000; Otto et al., 2010): Those unsatisfied with their job or apprenticeship scored higher on occupational change readiness.

In a flourishing economy, strong occupational identity and high job satisfaction may provide companies with loyal employees. Positive work experiences fuel the desire to remain in the occupation for which one trained and/or in which one works, and employees with strong occupational identity are probably more likely to keep up with developments in their occupation; for example, by undertaking further training or subscribing to trade journals (see Meyer, Allen, & Smith, 1993). This attribute may be of limited use, however, when the labor market situation is poor as the case is in Eastern Germany. It can be concluded, on the one hand, that (young) individuals with strong occupational identity may avoid making the adaptations necessary to remain competitive in the labor market. On the other hand, for the companies, these are the loyal employees who will be needed when times get rough and the survival of the company depends on highly committed individuals. Hence, from a practical standpoint, we have to find ways of widening the scope of identifying with one's occupation to identifying with certain skills and experiences supporting both the need of employees and that of organizations.

## Limitations, Open Research Questions and Conclusion

We would also like to point out some of the limitations that caution us not to over-generalize our findings. Because of the cross-sectional nature of the studies, some questions remain unanswered, such as whether occupational change readiness can be seen as an indicator of occupational change itself. The construct investigated here is more specific than an attitude, but less closely related to real behavior than an intention (Ajzen, 1991). Although studies have established a relationship between readiness and behavior – for geographic mobility, at least (e.g., Brett & Reilly, 1988) – the impact of occupational change readiness on actual occupational transitions of school students and apprentices remains unclear. We suggest verifying the findings presented here in more balanced and representative samples.

Also, for some scales, Cronbach's alpha was shown to be below the usually desired criterion of .70, especially in the student sample. While we used both short measures and broad constructs and the mean inter-item correlations were found to be acceptable we nevertheless suggest that – given that alpha is not a measure for unidimensionality (Schmitt, 1996) – it seems that either the measures or the constructs may need to be re-evaluated to better fit the student subsample. Moreover, future studies should apply more similar constructs when comparing different groups.

Finally, although a considerable amount of variance (45 %) was explained in the apprentices study, underlining the practical relevance of our results, only 7 % of the variance was explained by our predictor set in the study with school students. Future studies should explore whether other predictors – as, for example, flexibility, career orientation, or parental experiences – are better able to explain occupational change readiness of this population later in life, or whether it is impossible to predict occupational change readiness any better at this stage in life.

We believe that the readiness to work in a completely different occupation than one was qualified in and/or has worked in so far will become more and more a basic job requirement in the future. In the past, the traditional career was characterized by full-time employment within a single organization (Arthur, 1994), in an occupation for which people qualified early in life. These bounded careers provided individuals with an occupational identity (Herriot & Scott-Jackson, 2002). Instead, 21st century career development is characterized by retraining, continuing education, and transitions to different occupations. At least to our knowledge, our study was the first that sought to learn more about the potential antecedents that enable those at the beginning of their working life - i.e. secondary school students and apprentices - to deal successfully with this demand.

## References

- Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50, 179-211.
- Arnold, J. (2001). Careers and career management. In N. Anderson, D. S. Ones, H. K. Sinangil & C. Viswesvaran (Eds.), *Handbook of industrial*, work, and organizational psychology (Vol. 2, pp. 115-132). London: Sage Publications.
- Arthur, M. B. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of Organizational Behavior*, 15, 295-306.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Re*view, 84, 191-215.
- Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W. H. Freeman and Company.
- Blau, G. (2000). Job, organizational, and professional context antecedents as predictors of intent for interrole work transitions. *Journal of Vocational Behavior*, 56, 330-345.
- Borkenau, P. & Ostendorf, F. (1993). NEO-Fünf-Faktoren Inventar (NEO-FFI) [NEO Five Factor Inventory (NEO-FFI)]. Göttingen: Hogrefe.
- Brett, J. M. & Reilly, A. H. (1988). On the road again: Predicting the job transfer decision. *Journal of Applied Psychology*, *73*, 614-620.
- Clark, L. A. & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309-319.
- Costa, P. T. & McCrae, R. R. (1989). *NEO-PI/FFI Manual Supplement*. Psychological Assessment Resources, Odessa.
- Dalbert, C. (2002). Die Ungewissheitstoleranzskala (The uncertainty tolerance scale). In E. Brähler, J. Schumacher & B. Strauß (Eds.), *Diagnostische* Verfahren in der Psychotherapie (pp. 374-377). Göttingen: Hogrefe.
- Dalbert, C. (2004). *Berufliche Mobilitätsbereitschaft* (Willingness to change occupations). Retrieved February 14, 2012, from: http://www.erzwiss.unihalle.de/gliederung/paed/ppsych/bericht08.pdf
- Dette, D. & Dalbert, C. (2005). Moving for their first job or staying put? Predictors of high school students' attitudes towards geographic mobility. *Journal of Applied Social Psychology*, *35*, 1719-1737.
- Dugas, M. J., Hedayati, M., Karavidas, A., Buhr, K., Francis, K. & Phillips, N. A. (2005). Intolerance of uncertainty and information processing: Evidence of biased recall and interpretations. *Cognitive Therapy and Research*, 29, 57-70.

- Eby, L. T. & Russel, J. E. A. (2000). Predictors of employee willingness to relocate for the firm. *Journal of Vocational Behavior*, 57, 42-61.
- Emmons, R. A. (1996). Striving and feeling: Personal goals and subjective well-being. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (p. 313-337). New York: Guilford Press.
- Erikson, E. H. (1976). *Identität und Lebenszyklus* (Identity and life cycle). Frankfurt: Suhrkamp.
- Federal Ministry of Education and Research (2013). Berufsbildungsbericht 2013 (Professional training report 2013). Retrieved January 2nd, 2014, from: http://www.bmbf.de/de/berufsbildungsbericht. php
- Frenkel-Brunswik, E. (1949). Intolerance of ambiguity as an emotional and perceptional personality variable. *Journal of Personality*, *18*, 108-143.
- Friedel, A. & Dalbert, C. (2003). Belastung und Bewältigung bei Grundschullehrerinnen: Die Auswirkungen einer Versetzung an die Förderstufe und der Einfluss der Ungewissheitstoleranz (Stress and coping among primary school teachers: The consequences of being transferred to secondary school and the impact of uncertainty tolerance). Zeitschrift für Pädagogische Psychologie, 17, 55-68.
- German Trade Union Confederation (2012). Perspektiven durch Übernahme: Die Übernahmesituation von Auszubildenden 2012. Retrieved January 4, 2014, from http://www.igbau.de/Binaries/Binary14478/DGB-Studie\_Perspektive\_durch\_Uebernahme.pdf
- Hamilton, S. F. & Lempert, W. (1996). The impact of apprenticeship on youth: A prospective analysis. *Journal of Research on Adolescence*, 6, 427-455.
- Havighurst, R. J. (1972). Developmental task and education. New York: McKay.
- Heckhausen, J. & Tomasik, M. J. (2002). Get an apprenticeship before school is out: How German adolescents adjust vocational aspirations when getting close to a developmental deadline. *Journal of Vocational Behavior*, 60, 199-219.
- Heinz, W. R. (2002). Transition discontinuities and biographical shaping of early work careers. *Journal* of Vocational Behavior, 60, 220-240.
- Herriot, P. & Scott-Jackson, W. (2002). Globalization, social identities and employment. *British Journal* of Management, 13, 249-257.

- Jimmieson, N. L., Terry, D. J. & Callan, V. J. (2004). A longitudinal study of employee adaptation to organizational change: The role of change-related information and change-related self-efficacy. *Journal of Occupational Health Psychology*, 9, 11-27.
- Kälin, W., Semmer, N. K., Elfering, A., Tschan, F., Dauwalder, J.-P., Heunert, S. & Crettaz von Roten,
  F. (2000). Work characteristics and well-being of Swiss apprentices entering the labor market. *Swiss Journal of Psychology*, 59, 272-290.
- König, S. & Dalbert, C. (2004). Ungewissheitstoleranz, Belastung und Befinden bei BerufsschullehrerInnen (Uncertainty tolerance, strain and health of teachers in vocational schools). *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie, 36*, 190-199.
- Ladouceur, R., Gosselin, P. & Dugas, M. J. (2000). Experimental manipulation on intolerance of uncertainty: A study of a theoretical model of worry. *Behaviour Research and Therapy*, *38*, 933-941.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal and coping.* New York: Springer.
- Lutz, B. (2001). Im Osten ist die zweite Schwelle hoch. Fehlende Arbeitsplätze und Nachwuchsstau vor den Toren des Arbeitsmarktes (The second threshold is high in Eastern Germany. Nonexistent job opportunities and pile-up of young talent on the labor market) (Forschungsberichte aus dem ZSH 01-2). Halle: Zentrum für Sozialforschung Halle e.V. an der Martin-Luther-Universität.
- Meyer, J. P., Allen, N. J. & Smith, C. A. (1993). Commitment to organizations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78, 538-551.
- Neuberger, O. & Allerbeck, M. (1978). *Messung und Analyse von Arbeitszufriedenheit* (Measuring and analyzing job satisfaction). Bern: Huber.
- Ng, T. W. H., Sorensen, K. L., Eby, L. T. & Feldman, D. C. (2007). Determinants of job mobility: A theoretical integration and extension. *Journal of Occupational and Organizational Psychology*, 80, 363-386.
- Nunnally, J. C. & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.
- Nurmi, J.-E., Salmela-Aro, K. & Koivisto, P. (2002). Goal importance and related achievement beliefs and emotions during the transition from vocational school to work: Antecedents and consequences. *Journal of Vocational Behavior, 60*, 241-261.

- Ostroff, C. & Clark, M. A. (2001). Maintaining an internal market: Antecedents of willingness to change jobs. *Journal of Vocational Behavior*, *59*, 425-453.
- Otto, K. & Dalbert, C. (2004). Berufliche Mobilitätsselbstwirksamkeitserwartung (Occupational change self-efficacy). Retrieved February 14, 2012, from http://www.erzwiss.uni-halle.de/ gliederung/paed/ppsych/bericht08.pdf
- Otto, K. & Dalbert, C. (2010). New challenges for human resource management: Readiness to perform a mobile job and its antecedents. *International Journal of Human Resource Management*, 21, 600-614.
- Otto, K. & Dalbert, C. (2012 a). Willingness to accept occupational change when offered incentives: Comparing full-time and part-time employees. *European Journal of Work and Organizational Psychology, 21, 222-243.*
- Otto, K. & Dalbert, C. (2012 b). Individual differences in job-related relocation readiness: The impact of personality dispositions and social orientations. *Career Development International*, *17*, 168-186.
- Otto, K., Dette-Hagenmeyer, D. E. & Dalbert, C. (2010). Occupational mobility in members of the labor force: Explaining the willingness to change occupations. *Journal of Career Development*, 36, 262-288.
- Roberts, B. W., Caspi, A. & Moffitt, T. E. (2003). Work experiences and personality development in young adulthood. *Journal of Personality and Social Psychology*, 84, 582-593.
- Satow, L. & Mittag, W. (1999). Selbstwirksamkeit im Umgang mit sozialen Anforderungen (Selfefficacy in coping with social demands). In R. Schwarzer & M. Jerusalem (Eds.), Skalen zur Erfassung von Lehrer- und Schülermerkmalen. Berlin: Freie Universität Berlin.
- Schmitt, N. (1996). Uses and abuses of alpha. *Psychological Assessment*, *8*, 350-353.
- Smith, P. C., Kendall, L. M. & Hulin, C. L. (1969). The measurement of satisfaction in work and retirement. Chicago, Ill.: Rand McNally.
- Streiner, D. L. (2003). Starting at the beginning: An introduction to coefficient Alpha and internal consistency. *Journal of Personality Assessment*, 80, 99-103.
- Sullivan, S. E. & Arthur, M. B. (2006). The evolution of the boundaryless career concept: Examining physical and psychological mobility. *Journal of Vocational Behavior*, 69, 19-29.

- Trautwein, U., Köller, O., Watermann, R., Lüdtke, O., Maaz, K., Nagy, G. & Baumert, J. (2000). *Bildungsverläufe und psychosoziale Entwicklung im Jugend- und jungen Erwachsenenalter* (BIJU) [Learning processes, educational careers, and psychosocial development in adolescence and young adulthood (BIJU)], Längsschnitt 1. Dokumentation der 6. Datenerhebung, Berlin: Max-Planck-Institut für Bildungsforschung, Unpublished Scale.
- West, M. A., Nicholson, N. & Rees, A. (1987). Transitions into newly created jobs. *Journal of Occupational Psychology*, *60*, 97-113.

Correspondence to: Kathleen Otto Faculty of Psychology, Work and Organizational Psychology Philipps University of Marburg Gutenbergstraße 18 D-35032 Marburg kathleen.otto@staff.uni-marburg.de