

## **Paths to adulthood: Project and methods.**

*Macek, P., Horská, E., Kotrlová, H., Kvitkovičová, L., Lacinová, L., & Ježek, S.*

The project focuses on the developmental period of emerging adulthood, a transitory period between adolescence and adulthood. Based on a longitudinal methodology, the main aims of the project are twofold.

First, we aim to explore the process of transition from adolescence to adulthood and to describe the individual psychological characteristics specific to this “time of transition” within the current cultural and social context. The focus is on the interaction between the growing autonomy potential and commitment potential both on the macro time scale spanning the whole developmental period and on the micro time-scale following the immediate behavioral expression of autonomy and commitment processes in day-to-day functioning and during subjectively important events (Lichtwarck-Aschoff, van Geert, Bosma, & Kunnen, 2008).

Findings on the macro scale allow for prospective predictions of the individual development in terms of growth curves or life-span development, i.e. age-related changes in adaptive capacity (or in terms of positive/negative development - see Baltes, 1987; Lerner, Freund, De Stefanis, & Habermas, 2001). Findings on the micro scale help us better understand a particular individual and better theorize about the actual change processes thus effectively validating the macro scale theories.

Second, to supplement the macro-time models, we aim to research the predictors, moderators and mediators of the current behavioral and experiential levels of autonomy and commitment, such as personality characteristics, relational characteristics or significant events (current and retrospective). Besides retrospective self-report measures and indicators that form the major part of data in this area, we plan to also make use of the vast body of childhood and adolescence data collected over the 19 years of the European Longitudinal Study of Pregnancy and Childhood (ELSPAC). These characteristics are hypothesized to moderate or specify the mean developmental trajectories of autonomy and commitment (both baseline levels and further development). Under various conditions, some of which are only temporary, the levels of autonomy, commitment or both can decrease or increase with consequences for identity formation and possible adjustment issues.

We have started our longitudinal study in **autumn 2012**. The sample was initially recruited in the two-cohort structure using a multi-stage cluster sampling. However, the response rate was extremely low so we decided to use the social networks to help us in addressing potential

respondents with obvious limitations to the representativeness of our sample. Using only Facebook allow us to increase the number of respondents to 1580.

Within the initial wave we administered a representative sample of measures which give the respondents an idea what the individual waves will be like. The initial wave included demographics and longitudinal measures of the two basic general types of autonomy – agentic experiential autonomy and separational decision-making independence from parents.

**During the year 2013** we continued collecting data from our online sample and kept on recruiting further participants. To facilitate responding and recall, increase the validity of responses, promote the respondents' identification with the study, and provide more opportunity for feedback, we split the questionnaires in three parts administered in April, September and December. In this way we are trying to keep attrition as low as possible. Each wave focuses mainly on one life domain in which autonomy and identity develop.

*Wave one (in April 2013)* focused on the cognitive concepts behind autonomy and identity, like the need for cognitive closure, identity process styles. Next to these concepts we also used an interpersonal dependency measure and collected further demographic data on our respondents.

*Wave two (September 2013)* focused on the domain of closed relationships. This wave included family of origin demographics, basic information about current and previous romantic relationships and measures of attachment to significant others (parents, partner, best friend), commitment and exploration in the context of current romantic relationship. We also asked for detailed information on previous romantic relationships and affective experience of break up.

*Wave three (December 2013)* focused on the career/vocational life domain. We asked for detailed descriptive information on study activities, work activities and voluntary/activism activities. We also assessed subjective evaluation of progress, development in this life domain, of exploration and commitments and affective experiences related to career self-perceptions. We also collected data on general developmental outcomes through life satisfaction, self-esteem and the clarity of self.

In order to lower the longitudinal sample attrition we prepared a motivational event for our respondents including feedback on their responses in first and second wave of data collection. After first data gathering we sent them individual scores (experienced autonomy, perceived autonomy in decision making in family, need for cognitive closure, and support seeking) by e-mail and we presented data distribution on Facebook and our web. This feedback form enabled our respondents to compare their results with peers.

**During the year 2014** we continued collecting data from our online sample. As well as previous year we split the questionnaires in three parts administered in April, August, and December to

keep attrition as low as possible. First two waves focused mainly on one life domain in which autonomy and identity develop and last wave consisted of personality measures.

The main focus of *wave four (April 2014)* was relationship with parents. We take into account wide range of psychological concepts that can describe different modalities of relationship with parents. From demographic variables we include current living arrangement and “leaving parental nests”. Some of used psychological concepts like parental control and parental support autonomy are directly connected with autonomy. Besides this we also measured perceived interparental conflict, qualities of parental attachment (trust, communication, and alienation), and commitment. Next to these main concepts related to parents we also included questions about eating behavior and some anthropometrical measures like weight and height.

*Wave five (August 2014)* focused on the domain of close relationships for the second time. This wave after one year repeated questions about basic information about current and previous romantic relationships and measures of attachment to significant others (parents, partner, best friend), commitment and exploration in the context of current romantic relationship. We asked again for detailed information on previous romantic relationships and emotional bond to previous partners. Interpersonal dependency has been measured for the second time. We also added new measures focused on relationship satisfaction and motivation to sexual behavior.

*Wave six (December 2014)* focused on the personality concepts behind autonomy, like the temperament (behavioral inhibition and activation, affective responses to impending reward and punishment), sensation seeking, and time perspective (a fundamental dimension in the construction of psychological time). Next to these concepts we also used value orientations measure. To maintain the attractiveness of testing (and also due to future use for feedback to respondents) was included in this wave also question about the preferences selected TV-series characters.

**The fourth year of the project (2015)** is different from the previous: besides continuing with our longitudinal data collection we plan to re-recruit and collect data from the ELSPAC sample. A selected subset of measures (mainly developmental outcomes) will be administered to a sample from which we have large amount of data from childbirth to adolescence.

We also continued collecting data from our online sample. As well as in previous years we split the questionnaires in three parts administered in April, August, and December to keep attrition as low as possible. The main focus of *wave seven (May 2015)* was relationship with parents (current living arrangement, “leaving parental nests”, parental control, parental support autonomy, perceived interparental conflict, qualities of parental attachment, and commitment) for second time. Next to these main concepts related to parents we again included questions about eating behavior and some anthropometrical measures like weight and height.

*Wave eight (August 2015)* focused on the domain of close relationships for the third time. This wave after one year repeated questions about basic information about current and previous romantic relationships and measures of attachment to significant others (parents, partner, best friend), relationship satisfaction, commitment and exploration in the context of current romantic relationship. We asked again for detailed information on previous romantic relationships and emotional bond to previous partners. Need for cognitive closure has been measured for the second time in this wave.

*Wave nine (December 2015)* was focused for the second time on the career life domain. After two years, we asked again for detailed descriptive information on study and work activities, we were also interested in changes in these activities as well as in possible reasons for these changes. We further asked about activism, including the question about the participation in some kind of volunteering connected with current refugee crisis. We also assessed the level of work and study commitment, exploration and reconsideration. We also collected the data on career indecision, self-efficacy and subjective satisfaction with career path following. The questions regarding self-esteem and the clarity of self were repeated. This time, we were also interested if our participants have ever used the services of career counselling.



## Summary of used methods

### **Academic Self-Efficacy**

The Academic Self-Efficacy scale was based on Bandura's theory (1997) and it was further refined to fit the college environment. The scale consists of 8 statements and respondents record their agreement with each statement on a 7-point Likert scale ranging from 1 (definitely not true of me) to 7 (definitely true of me).

We added 4 statements which are most often used in Czech college context to describe an efficient student.

This scale was used in wave 9.

#### Reference:

Leach, C. W., Queirolo, S. S., DeVoe, S., & Chemers, M. (2003). Choosing letter grade evaluations: The interaction of students' achievement goals and self-efficacy. *Contemporary educational psychology, 28*(4), 495-509.

### **Autonomy scale**

The Autonomy scale is a self-report instrument which was created to assess the development of emotional autonomy. It is based on the Self-Determination Theory (Deci & Ryan, 1985). The scale includes 7 items which respondents rate on a 7 point Likert scale, from 1 (does not describe me at all) to 7 (completely describes me).

This scale was used in all waves (0, 1, 2, 3, 4, 5, 6, 7, and 8).

#### Reference:

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the selfdetermination of behavior. *Psychological Inquiry, 11*, 227-268.

### **Basic Psychological Needs Satisfaction in Relationship**

The basic psychological needs satisfaction in relationship scale is revision of the Need satisfaction measure (Guardia, Ryan, Couchman, & Deci, 2000). It includes three items each for autonomy, competence and relatedness, with total need satisfaction assessed as the average of the nine items. Participants rate the items on a 7 point Likert scale.

This scale was used in wave 2, 5, and 8.

#### Reference:

La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology, 79*, 367-384.

### **The Behavioural Inhibition System and Behavioural Activation System (BIS/BAS) scales**

The BIS/BAS was designed to assess dispositional sensitivity to the behavioral inhibition system (BIS) and the behavioral activation or behavioral approach system (BAS). For purposes of this

study, 15 items were chosen. All items are rated on a 4 point Likert scale ranging from 1 (very true for me) to 4 (very false for me).

This scale was used in wave 6.

Reference:

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology, 67*, 319-333.

Demianczyk, A. C., Jenkins, A. L., Henson, J. M., & Conner, B. T. (2014). Psychometric evaluation and revision of Carver and White's BIS/BAS scales in a diverse sample of young adults. *Journal of Personality Assessment, 96*(5), 485 - 494.

**Career Decision Self-Efficacy Scale-SF**

Short form of the CDSE (CDSE-SF) contains 25 items that were taken from the original CDSE. The CDSE-SF has five subscales that measure five domains: Self-Appraisal, Occupational Information, Goal Setting, Planning, and Problem Solving. Respondents are asked to rate their confidence about performing each task on a 5 point Likert scale ranging from 1 (no confidence) to 5 (complete confidence).

5 items of the Occupational Information scale and 4 items of the Goal Setting scale were administered in wave 3. The whole questionnaire was administered in wave 9.

Reference:

Gloria, A. M., & Hird, J. S. (1999). Influences of ethnic and nonethnic variables on the career decision-making self-efficacy of college students. *The Career Development Quarterly, 48*, 157-174.

**Career Identity (Holland)**

6 items of subscale Obstacles has been chosen for the current study. This subscale detects if people perceive obstacles while reaching their personal goals. Respondents rate items on a 3 point Likert scale, ranging from 1 (yes, corresponds to) to 3 (no, do not corresponds).

The scale was used in wave 3.

Reference:

<http://www.testcentrum.com/testy/dvp>

**Career-Related Parent Support Scale**

Parental support for career was assessed using the four subscales of the Career- Related Parent Support Scale (CRPSS; Turner, Alliman-Brissett, Lapan, Udipi, & Erugun, 2003). 10 items has been chosen and rated on a 5 point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). For the current study, items were asked in retrospect.

The scale was used in wave 4.

### Reference:

Turner, S. L., Alliman-Brissett, A., Lapan, R. T., Udipi, S., & Ergun, D. (2003). The career-related parent support scale. *Measurement and Evaluation in Counseling and Development, 56*(2), 44-55.

### **Children's Perception of Interparental Conflict Scale (CPIC)**

The CPIC was developed to assess parent's level of conflict from their children's point of view (Grych, Seid, & Fincham, 1992). The 38 items were included and respondents rated them on a 3 point Likert scale (1 = True, 2 = Partly true, 3 = False). The CPIC include three scales: Conflict Properties, Self-Blame and Threat.

The CPIC was used in wave 4 and 7.

### Reference:

Grych, J. H., Seid, M., Fincham, F. D. (1992). Assessing marital conflict from the child's perspective: The children's perception of interparental conflict scale. *Child Development, 63*, 558 - 572.

### **Clarity of self**

Self-Concept Clarity (SCC; Campbell et al., 1996) contains of 12 items measuring the extent to which an individual's self-concept is clearly defined and stable; capturing how certain the individual is of their self-concept. Individuals rate each item on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The scale was used in wave 3 and wave 9.

### Reference:

Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*(1), 141-156.

### **Decision-making autonomy**

Decision making autonomy was inspired by Children's decision-making autonomy (Qin, Pomerantz, & Wang, 2009). Young people reported on how decisions regarding 18 issues are usually made in their families. The issues are those commonly faced by young people during emerging adulthood period in their daily life. In our research a few items has been modified and a few items has been added so that they were appropriate for use with young people in Czech Republic. The possible responses for each issue were: "My parents are intruding into my decision (forcing me or suppressing)" (coded as 1), "My parents present their opinion but let me to make my own decision afterwards" (coded as 2), "My parents do not present their opinion, they let me to make my own decision" (coded as 3), "My parents do not care at all" (coded as 4), and "I don't know (I don't live with my parents or other reason)" (coded as 5).

The scale was used in wave 0.

Reference:

Qin, L., Pomerantz, E. M., & Wang, Q. (2009). Are gains in decision-making autonomy during early adolescence beneficial for emotional functioning? The case of the United States and China. *Child Development, 80*, 1705-1721.

**Eating Disorder Inventory-3 (EDI-3)**

This self-report questionnaire provide a comprehensive measure for assessing the presence and intensity of eating disorders. Three primary scales were selected for this study: Drive for thinness (6 items), Body dissatisfaction (9 items) and Bulimia (6 items). These 21 items are rated on a 6 point Likert scale, ranging from 1 (always) to 6 (never).

This measure was used in wave 7.

Reference:

<http://www4.parinc.com/Products/Product.aspx?ProductID=EDI-3>

**Efficacy in caring**

This self-report measure was developed to assess participants' self-efficacy at the provision of emotional support (MacGeorge, Clark, & Gillihan, 2002). Three items asked participants to rate their own efficacy. The items were rated on a 4 point Likert scale, from 1 (completely agree) to 4 (completely disagree).

This measure was used in wave 2.

Reference:

MacGeorge, E. L., Clark, R. A., & Gillihan, S. J. (2002). Sex differneces in the provision of skillful emotional support: The mediating role of self-efficacy. *Communication Reports, 15*(1), 17-28.

**Emotional attachment to former partner (EX BOND)**

The method measures feelings of emotional attachment to an ex-partner formed into continued longing for him/her. The scale consists of 4 items on a 7 point Likert scale, ranging from 1 (does not describe me at all) to 7 (completely describes me).

The scale was included in wave 2, 5 and 8.

Reference:

Spielmann, S. S., MacDonald, G., & Wilson, A. E. (2009). On the rebound: Focusing on someone new helps anxiously attached individuals let go of ex-partners. *Personality and Social Psychology Bulletin, 35*, 1382–1394.

**Emotional autonomy scale (EAS)**

The EAS is a self-report instrument which was created to assess the development of emotional autonomy. The EAS was derived directly from Blos's suggestions that the development of



emotional autonomy can be best understood in terms of the process of 'individuation', rather than detached from parents; the adolescents' relinquishes childish dependencies on, and conceptualizations of them (Steinberg & Silverberg, 1986). The measure is composed of 20 items which are rated on a 4 point Likert scale, from 1 (Agree) to 4 (Disagree). The EAS differentiates two components of emotional autonomy - cognitive and affective. The cognitive aspects of emotional autonomy consisted of two subscales: *perceives parents as people* and *parental deidealization*. The affective aspects of emotional autonomy also consisted of two subscales: *nondependency on parents* and *individuation*.

This measure was used in wave 4.

Reference:

Steinberg, L., & Silverberg, S. B. (1986). The Vicissitudes of Autonomy in Early Adolescence. *Child Development*, 57(4), 841-851.

### **Groningen Identity Development Scale**

This scale was created according to Marcia's model of identity development. The identity is believed to be formed by rising levels of exploration of important domains of adult life and a level of commitment to it. Commitment level is measured by 6 items and Exploration by 5 items. All items are rated on a four point Likert scale, from 1 (not at all, never) to 4 (absolutely yes, a lot).

The scale was used in waves 2, 5, and 8 for romantic relationships; in waves 4 and 7 for parents; in wave 3 and 9 for career.

Reference:

Konečná, V., Neusar, A., Sokoliová, M., & Macek, P. (2010). Možnosti zkoumání formování identity v adolescenci: česká adaptace metody GIDS. *Československá psychologie, Psychologický ústav Akademie věd*, 54(4), 391-406.

### **Identity style inventory**

Participants completed Version 4 of the Identity Style Inventory. Items are scored on a 5 point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The scale was used in wave 1.

Reference:

Berzonsky, M. D., Soenens, B., Luyckx, K., Goossens, L., Dunkel, C. S., & Papini, D. R. (2011). Development and validation of the Revised Identity Style Inventory (ISI-4): Factor structure, reliability, and convergent validity. Unpublished manuscript.

### **Inventory of Parent and Peer Attachment (IPPA)**

The IPPA (Armsden & Greenberg, 1987) is a self-report instrument which measure the affective and cognitive dimensions of relationships with parents and peers. The IPPA was included in

order to access the quality of respondents' current relationships with their mothers and fathers. The 15 items were included for each of a mother and father. The items are rated on a 4 point Likert scale, from 1 (definitely yes) to 4 (definitely not). The IPPA contains three scales - Trust (5 items), Communication (4 items) and Alienation (6 items) as well as a total attachment score. The scale was used in wave 4 and 7.

#### References:

Armsden, G. C., & Greenberg, M. T. (1987). The Inventory of Parent and Peer Attachment: Relationships to well-being in adolescence. *Journal of Youth and Adolescence*, 16(5), 427-454.

Širůček, J., Lacinová, L. (2008). Relationship with Parents from the Perspective of Attachment Theory. In S. Ježek & L. Lacinová (Eds.), *Fifteen-Year-Olds in Brno: A Slice of Longitudinal Self-Reports* (pp. 123 - 130). Brno: Masarykova univerzita.

#### **Mood and Feelings Questionnaire (MFQ)**

The MFQ consists of a series of descriptive phrases regarding how the subject has been feeling or acting in a past 2 weeks. The method consists of 15 items. Respondents rate if a phrase was true/sometimes true/not true about them.

The method was used in wave 8.

#### Reference:

Sund, A. M., Larsson, B., & Wichstrøm, L. (2003). Psychosocial correlates of depressive symptoms among 12-14-year-old Norwegian adolescents. *Journal of Child Psychology and Psychiatry*, 44, 588-597.

Masopustová, Z., Michalčáková, R., Lacinová, L. & Ježek, S. (2008). Depressive Symptoms in Adolescence. In S. Ježek & L. Lacinová (Eds.), *Fifteen-Year-Olds in Brno: A Slice of Longitudinal Self-Reports* (pp. 71 – 76). Brno: Masarykova univerzita.

#### **Need for cognitive closure scale**

Participants completed the 15 items version of the revised NFC scale (Webster & Kruglanski, 1994; adapted by Roets & Van Hiel, 2007). All scales are rated on 5 point Likert scales ranging from 1 (does not describe me at all) to 5 (completely describes me).

The scale was used in wave 1 and 8.

#### Reference:

Roets, A., van Hiel, A. (2010). Item selection and validation of a brief, 15-item version of the Need for Closure Scale. *Personality and Individual Differences*, 50(1), 90-94.

#### **Perceived Locus of Causality for Sex Scale (PLOC-S)**

The PLOC-S was developed to assess sexual motivation and reasons for engaging in sexual activity. The scale consists of 40 items. Respondents use a 5 point Likert scale, ranging from 1 (not at all for this reason) to 5 (very much for this reason) to indicate if each of the reasons

provided was a reason they tend to engage in sexual activity in general with their romantic partner.

This scale was used in wave 5.

Reference:

Jenkins, S. S. (2004). Gender and self-determination in sexual motivation (Doctoral dissertation), University of Rochester, Dissertation abstracts international, 64, 6330.

**Perception of Parental Autonomy - Support and Control Scale**

This self-report measure was developed to assess the constructs of perceived parental autonomy-support and control as defines by Self-Determination Theory (Deci & Ryan, 1985). The 15 items are included for each of a mother and father. The items are rated on a 4 point Likert scale, from 1 (definitely yes) to 4 (definitely not). The scale yields two relatively independent negatively correlated factors: autonomy-support (9 items) and control (6 items).

This scale was used in wave 4 and 7.

Reference:

Robbins, R. M. (1995). Parental autonomy support vs. control: Child and parent correlates, and assessment. Unpublished doctoral dissertation, University of Rochester.

**Portrait Values Questionnaire**

The PVQ was developed to measure the value orientation. The method differs 10 value types: self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence and universalism. The 21 items are rated on a Likert scale, ranging from 1 (very false for me) to 6 (very true for me).

The PVQ was used in wave 6.

Reference:

Řeháková, B. (2006). Měření hodnotových orientací metodou hodnotových portrétů S. H. Schwartze. *Czech Sociological Review*, 42(1), 107 - 128.

**Psychological control scale (PCS)**

The PCS was developed to assess parental psychological control (Barber, 1996). It is based on the psychological control subscale of the Children's Report of Parental Behavior Inventory by Schaefer but provides more behavioral specificity. The 8 items are included for each of a mother and a father. The items are rated on a 4 point Likert scale, from 1 (definitely yes) to 4 (definitely not). The PCS assess following components: Invalidating Feelings (1 item), Constraining Verbal Expressions (2 items), Personal Attack (2 items) and Love Withdrawal (2 items).

The PCS was used in wave 4 and 7.

Reference:

Barber, B. K. (1996). Parental Psychological Control: Revisiting a Neglected Construct. *Child Development, 67*, 3296-33.

### **Quality Marriage Index**

Relationship satisfaction was assessed using the QMI (Norton, 1983). The measure includes 6 items. Items 1 - 5 use a 7 point Likert scale ranging from 1 (very strong disagreement) to 7 (very strong agreement), and item 6 uses a 10 point Likert scale ranging from 1 (very unhappy) to 10 (perfectly happy) rating the global degree of happiness in the relationship.

The scale was used in wave 5 and 8.

#### Reference:

Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family, 45*, 141–151.

### **Reconsideration of commitment in romantic relationship and in career domain**

Reconsideration of commitment refers to the comparison of present commitments with possible alternatives because the current commitments are no longer satisfactory. It consists of 3 items which are rated on a 4 point Likert scale, from 1 (completely true) to 4 (completely untrue).

This method was used in waves 2, 5, 8 for romantic relationships, and in wave 9 for career domain.

#### Reference:

Crocetti, E., Schwartz, S. J., Fermani, A., & Meeus, W. (2010). The Utrecht-Management of Identity Commitments Scale (U-MICS): Italian Validation and Cross-National Comparisons. *European Journal of Psychological Assessment, 26*(3), 172–186.

### **Relationship profile test (RPT)**

The RPT is a rationally derived 30 items questionnaire that asks participants to respond to a series of self-statements. The RPT yields three 10 item subscale scores: Destructive over-dependency, Dysfunctional detachment, and Healthy dependency. In our research, each statement was rated on a 5 point scale ranging from 1 (not at all true of me) to 7 (very true of me).

The scale was used in wave 1 and 5.

#### Reference:

Bornstein, R. F., Languirand, M. A., Geiselman, J. A., Creighton, M. A., West, H. A., Gallagher, E. A., et al. (2003). Construct validity of the Relationship Profile Test: A self-report measure of dependency-detachment. *Journal of Personality Assessment, 80*, 64–74.

### **Relationship Structures questionnaire (ECR-RS)**

The Relationship Structures questionnaire (ECR-RS; Fraley, Heffernan, Vicary, & Brumbaugh, 2011) is designed to assess attachment styles with respect to 4 targets (mother, father, romantic partner, and best friend). This instrument can be used as a 9 item version of the ECR-R. This shortened version is a 7 point Likert type design; it consists of 9 items, 3 of which designed to measure anxiety and 6 to measure avoidance.

The scale was included in wave 2, 5 and 8.

Reference:

Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The Experiences in Close Relationships-Relationship Structures questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment, 23*, 615-625.

**Self-esteem**

The RSE (Rosenberg, 1979) consists of 10 items assessing global self-esteem. The RSES contains an equal number of positively and negatively worded items rated on 4 point Likert scale, ranging from 1 (totally disagree) to 4 (totally agree). The scale can be scored by totalling the individual 4 point items after reverse-scoring the negatively worded items.

The scale was used in wave 3 and wave 9.

Reference:

Rosenberg, M. (1979). *Conceiving the Self*. New York: Basic Books.

**Sensation-Seeking Scale**

The SSS was developed to assess the personality traits of thrill and adventure seeking, disinhibition, experience seeking, and susceptibility to boredom. The SSS consists of 40 pairs of items in a force-choice form. Respondents are instructed to choose one option that captures them better than the other one.

This scale was used in wave 6.

Reference:

Zuckerman, M., Kolin, E. A., Price, L., & Zoob, I. (1964). Development of a sensation-seeking scale. *Journal of Consulting Psychology, 28*(6), 477 - 482.

**Subjective developmental status**

Emerging adults do not see themselves as adolescents and also entirely as adults, they usually feel somewhere in between. To find out this subjective developmental status, the question „I feel: (1) like a teenager (2) like an adult (3) somewhere between a teenager and an adult“ was added to the questionnaires.

This question was used in all waves (0, 1, 2, 3, 4, 5, 6, 7, and 8).

Reference:

Arnett, J. J. (2000). Emerging Adulthood: A Theory of Development From the Late Teens Through the Twenties. *American Psychologist, 55*(5), 469 - 480.

Macek, P., Bejček, J., & Vaníčková, J. (2007). Contemporary Czech emerging adults: Generation growing up in the period of social changes. *Journal of Adolescent Research, 22*(5), 444–475. doi:10.1177/0743558407305417.

### **Triangular Love Scale**

The Triangular Love Scale is based upon Sternberg's Triangular theory of love, according to which love can be understood as comprising three components – intimacy, passion, and decision commitment. The scale consists of 45 statements (15 for each component). Respondents rate statements on a Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

This scale was used in wave 8.

#### References:

Sternberg, R. J. (1997). Construct validation of a triangular love scale. *European Journal of Social Psychology, 27*, 313 – 335.

### **Unhealthy weight-control behaviors (UWCB)**

The method was adopted from the Project EAT-II Survey for Young Adults (Neumark-Sztainer et al., 2007). The participants are asked: "Have you done any of the following things in order to lose weight or keep from gaining weight during the past year?". Nine UWCB are evaluated: fasting, eating very little food, taking diet pills, using laxatives, using diuretics, using food substitutes (powder/special drink), skipping meals, smoking more cigarettes, following a high protein/low carbohydrate diet. Respondents are dichotomously categorized to those who did not conduct any UWCB and to those who conducted at least one UWCB.

The method was used in wave 4.

#### Reference:

Neumark-Sztainer, D. R., Wall, M. M., Haines, J. I., Story, M. T., Sherwood, N. E., van den Berg, P. A. (2007). Shared risk and protective factors for overweight and disordered eating in adolescents. *American Journal of Preventive Medicine, 33*, 359–369.

### **Vocational Identity Scale (VIS)**

Vocational identity scale was assessed using the Vocational Identity subscale (VIS) of My Vocational Situation (Holland, Daiger, & Power, 1980). The VIS measures one's "possession of a clear and stable picture of one's goals, interests, and talents" (Holland, Johnston, & Asama, 1993). The scale consists of 7 items concerning indecision which respondents rate on a 3 point Likert scale, ranging from 1 (very true) to 3 (very untrue).

The scale was used in wave 3 and wave 9.

#### Reference:

Holland, J. L., Daiger, D. C., & Power, P. G. (1980). *My Vocational Situation*. Palo Alto, CA: Consulting Psychologists Press.

Holland, J. L., Johnston, J. A., & Asama, N. F. (1993). The Vocational Identity Scale: A Diagnostic and Treatment Tool. *Journal of Career Assessment* January, 1, 1-12.

### **WHOTO - attachment hierarchy**

The WHOTO measure was used to determine the significant others to whom the respondent seeks proximity, those whom the participant uses as a safe haven, and those whom he or she uses as a secure base. Participants are instructed to write the name of the people who best served each of these roles. The aim is to indicate the extent to which the participant used his or her significant other (parent, friend, romantic partner, other) as an attachment figure.

The scale was included in wave 2, 5 and 8.

#### Reference:

Fraley, R. C. & Davis, K. E. (1997). Attachment formation and transfer in young adults' close friendships and romantic relationships. *Personal Relationships*, 4, 131-144.

### **Zimbardo Time Perspective Inventory (ZTPI)**

This method was developed to measure subjective time perspective. The inventory investigates orientation towards past-negative, past-positive, present-fatalistic, present-hedonistic and future time perspectives. It consists of 56 items which respondents rate on a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

This method was used in wave 6.

#### Reference:

Lukavská, K., Klicperová-Baker, M., Lukavský, J., & Zimbardo, P. G. (2011). ZTPI - Zimbardův dotazník časové perspektivy. *Československá psychologie*, 55(4), 356 - 373.