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# Editorial

Sabina Pauen

We are pleased to present you the fourth edition of our Journal of Self-Regulation and Regulation. In each volume, we aim to shed more light on the different perspectives in this broad field, which is highly profound as well as multifacted.

Despite the fact that a cross-disciplinary approach contributes a lot to further investigations, it can also pose difficulties. Each discipline has its own view and concepts of (self-) regulation, which are not always compatible. With each volume, we therefore want to further deepen the mutual interests and benefits and encourage the interdisciplinary dialogue that we find is highly enriching.

Since the establishment of our research area Self-Regulation and Regulation as part of our so-called Field of Focus 4 at Heidelberg University in 2012, we came quite a way but it seems like we only hit the tip of the iceberg.

We utterly hope you enjoy reading the fourth edition of our journal and would like to encourage further contributions and help in investigating how different individuals and organisations regulate themselves and their actions. Due to the fact that each faculty and discipline has its own writing format and publishing style, we allow for different formats of contributions. Therefore, we highly welcome research papers, essays or scientific commentaries for future editions of our journal, both in English and German!

Heidelberg, July 2018

Sabina Pauen, spokesperson

Research Council of FoF4

# Becoming self-regulated: Patterns of parenting in the lives of professionals who are highly self-regulated learners

**Evangelia Tiniakou, Tim Hirschler,**
**Maaike Endedijk, Anoush Margaryan**

## 1 Introduction

Knowledge workers in business, government, and academia are expected to take an active and responsible role in their professional development. This requires the ability to effectively direct and regulate their learning. Self-regulated learning (SRL) abilities facilitate the process of gaining new knowledge and skills and are therefore considered to be a core capability of professionals (Margaryan et al. 2013; Sitzman/Ely 2011). Self-regulated learners "have control over their own learning and can direct cognition and motivation to achieve a specific learning goal" (Loyens et al. 2008: 416). These learners are "proactive in their efforts to learn because they are aware of their strengths and limitations and because they are guided by personally-set goals and task-related strategies" (Zimmerman 2002: 65). An improved understanding of the conditions conducive to the development of SRL skills could benefit both employers and educational institutions. It can also help advance SRL research by allowing us to formulate hypotheses about the environmental, intrapersonal and interpersonal factors that can influence the process of developing the necessary skills, and characteristics in order to become a highly self-regulated learner.

Factors relevant to the development of SRL skills include external, environmental variables that can be identified within an individual's life course and, specifically, during the childhood. For example, previous research has shown that school factors can affect young children's SRL skills (Zimmerman 2002). Teaching strategies, in particular, those aimed at strengthening learners' self-management skills, autonomy, and self-reliance have also been shown to enhance children's SRL skills (Boekaerts/Corno 2005). In contrast, out-of-school factors that may also potentially influence SRL, have been under-researched and under-theorised. In particular, the role of the learners' families in the development of their self-regulatory skills during childhood and adolescence have not been well-understood (Purdie et al. 2004).

Parental influence is one such key out-of-school factor that may impact the development of SRL skills in childhood and adolescence (Grolnick/Ryan 1989; Steinberg 2001). Although children and adolescents are exposed to a range of different environments which affect their development, the parental influence remains highly important but

under-researched and under-theorised. The purpose of this paper is to report the findings of an exploratory study investigating the potential role parental involvement may play in someone becoming a highly self-regulated learner.

First, we review the key previous literature on the factors influencing the development of SRL skills and formulate key research questions to guide our study. The literature review presents two areas of research related to the development of SRL skills. First, some general factors influencing the development of SRL skills will be addressed. Second, some parental factors, in particular, parental attitudes towards learning; autonomy support; parental involvement; parental authoritativeness vs. authoritarianism; and socioeconomic characteristics will be discussed in relation to the development of SRL. We then describe our overall methodological approach and specify the methods, instruments, and procedures used. Subsequently, we present and discuss our findings, formulating a set of hypotheses and recommendations to guide future research.

## 2 Literature review

There is a large body of literature on self-regulation of behaviour and of self-regulated learning more specifically, developed within different disciplines and their branches such as educational, cognitive, work and clinical psychology, cybernetics, or adult and workplace learning (e.g. Boekaerts et al. 2005; Jossberger 2010; Kanfer et al. 2008; Locke/Latham 2013; Smith 2009; Vancouver/Day 2005; Zimmerman 2006). A recent comprehensive, meta-analytic review identified at least seven different theories of SR/SRL and 16 different key constructs of self-regulation (Sitzmann/Ely 2011). The main theories include control theory, goal setting theory, action regulation theory, resource allocation theory, self-efficacy theory and the phase models of SRL such as Zimmerman's three-phase model of SRL (Zimmerman 2005) and Pintrich's four-phase model of SRL (Pintrich 2000). Whilst the former theories have largely focused on the explanation of self-regulated behaviour more broadly, the phase models have been especially influential in the analysis of learning behaviour more specifically. In particular, Zimmerman's three-phase model of SRL has been especially influential in the field of education this paper is grounded in.

Self-regulation of learning refers to ". . . self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals" (Zimmerman 2000: 14). In Zimmerman's influential model, self-regulated learning is conceptualised as a three-phase process, whereby "the forethought phase refers to processes and beliefs that occur before efforts to learn; the performance phase refers to processes that occur during behavioural implementation, and self-reflection refers to processes that occur after each learning effort" (Zimmerman 2002: 67). Consequently, the term 'self-regulated learner' describes people who take responsibility for their learn-

ing outcomes to acquire desirable skills, are capable of setting learning goals and reflecting on their learning process strategically modifying their goals and processes when needed. Research has shown that students who are highly self-regulated produce better learning outcomes in their studies (Zimmerman 2005). Similarly, previous studies in adult learning contexts have shown that learners who are highly self-regulated tend to have better learning outcomes related to their work (Gijbels et al. 2010).

### 2.1 General factors influencing the development of SRL

Literature addresses a range of factors critical to the development of self-regulatory learning skills. Four main categories of factors which have been studied in relation to self-regulation are: school factors such as teachers' practices; individual characteristics such as self-conceptions; socioeconomic characteristics; and out-of-school factors such as parental practices. In particular, previous research has shown that SRL skills can be acquired in school and teachers can facilitate this process by teaching self-regulatory learning strategies (Pintrich 1999). It has also been shown that teachers can enhance students' motivation and self-efficacy (Zimmerman 2002). In particular, teachers can guide students to learn how to plan, monitor and evaluate their own learning or support students in establishing achievable goals and choosing appropriate learning strategies (Jossberger et al. 2010).

Next, to the role of teachers, learners' individual characteristics have been investigated by Wolters et al. (1996) who indicated that a learner's goal orientation has a positive effect on their self-efficacy. Self-efficacy refers to an individual's belief that they are competent and able to learn and achieve their goals and is considered to be a significant predictor or SRL (Bouffard-Bouchard et al. 1991; Zimmerman 2000). Another individual factor which has been found to contribute to the development of SRL processes is learners' intrinsic motivation in relation to their learning tasks (Pintrich 1999).

Regarding socioeconomic characteristics, marital status of parents has been shown to influence children's development. In particular, compared to children of non-divorced parents, children of divorced parents have been shown to be less likely to develop high self-esteem, another predictor of self-regulation skills (Brubeck/Berr 1992; Lambird 2006). However, the literature suggested that children of divorced parents may also develop self-regulation skills as an emotional response in order to prevent or overcome stressful situations (Lengua et al. 1999).

In terms of the out-of-school experiences, Berliner (2009) identified several key factors of parental styles and practices which may contribute to or impede the development of self-regulation during childhood. These include parental attitudes towards learning, autonomy, parental involvement, parental authoritativeness vs. authoritarianism, and parental socioeconomic characteristics.

## 2.2 Parenting styles and practices

Parenting is a fundamental factor in the development of children and especially in children's acquisition of new knowledge and attitudes. Parents shape children's learning environment and they provide them with their first learning stimuli (Bornstein 2001). Spera (2005) explored parenting by distinguishing parental styles and practices such as parental monitoring, parental involvement as well as love-oriented and object-oriented parenting styles. Parental style can be defined as "a constellation of attitudes towards the child that, taken together, create an emotional climate in which the parent's behaviours are expressed" (Darling/Steinberg 1993: 488). Parental factors relevant to learning are: autonomy, parental involvement, authoritative parenting and parental attitudes. These will be briefly discussed next.

### 2.2.1 Autonomy

We define autonomy as the degree to which freedom is experienced to make and carry out choices. This definition is in line with the study of Ryan/Deci (2006). Autonomy support is defined as "taking children's perspectives and viewpoints, allowing children choices, and supporting their initiatives and problem-solving attempts" (Grolnick 2009: 165). The literature has highlighted the importance of autonomy in learning performance and learning skills development (Ryan/Deci 2000; Deci/Ryan 1985). In particular, children who are encouraged by their parents and teachers to adopt autonomous behaviour tend to have a better ability to identify their goals and develop higher levels of self-regulation and self-motivation (Chirkov/Ryan 2001; Grolnick/Ryan 1989). Additionally, existing literature shows the relationship of some parenting styles with children's characteristics and behaviours related to SRL. In particular, parents who support autonomy, by, for example, encouraging children to complete their homework on their own and develop self-study skills, help enhance their children's academic performance (Cooper et al. 2000). These findings point to a positive relationship between autonomy support provided by parents and children's SRL skills development.

### 2.2.2 Parental involvement

Parental involvement refers to the extent to which parents are involved in the progress and the experiences of their children at school and at home (Sui-Chu/Willms 1996). Whereas autonomy support concerns the extent to which parents allow their children to solve problems and make their own choices, parental involvement focuses on those practices that show a parent's interest, but are not necessarily related to giving space for a child's decisions (Wong 2008). Previous research has shown that children who grew up with parents who were involved, provided them specific rules, feedback and clear expectations, were better able to solve problems on their own and were more likely to

develop self-regulatory skills (Grolnick 2009). In line with this, Grolnick/Ryan (1989) found a positive relationship between parental involvement and children's control over their school outcomes. Children who perceive more parental involvement are more likely to become self-regulated because parents offer opportunities to their children to develop self-determination and develop their own attitudes towards learning (Wong 2008). Moreover, children who are raised in an environment where routines and structured schedules are promoted by parents are more able to self-regulate their academic tasks and their lives in general (Effeney et al. 2013). Particularly, children of parents who are involved in their school life and used to form routines are more likely to self-regulate their homework. In conclusion, research has shown that there is a relationship between different types of parental involvement, such as providing resources and routines as well as showing interest in children's learning process and the development of children's SRL skills.

### 2.2.3 Parental authoritativeness vs. authoritarianism

Baumrind (1966) introduced a model distinguishing three parenting styles with respect to the type of control parents exert over children: the authoritative, the authoritarian and the permissive. This paper focuses on the authoritative and authoritarian style as these feature different ways in which parents express their expectations towards their children; the permissive style is void of the communication of expectations altogether. Previous research has revealed a strong connection between authoritative parenting and self-regulation skills. In particular, although it is strongly related to autonomy, the main characteristic of the authoritative parenting is that parents support their expectations towards their children with rational arguments encouraging them to set achievable goals and to reach these goals on their own (Heaven & Ciarrochi 2008). As a result, children who grow up in authoritative environments tend to develop more skills and greater independence. In contrast, authoritarian upbringing where parents have non-realistic expectations from their children and where children are punished for not meeting parental expectations have been shown to cause low self-esteem (Heaven/Ciarrochi 2008; Milevsky/Schlechter et al. 2007). Additionally, it has been shown that young teenagers who grow up in authoritative home environments develop higher self-confidence and more positive self-conceptions than those who grow up in authoritarian environments (Steinberg/Darling 1994).

Regarding the roles of parents individually, previous research has suggested that mothers, in particular, seem more likely to discuss their expectations using arguments and logical reasoning (Conrade/Ho 1991), consistent with an authoritative style. Maternal authoritative behaviour, in particular, can enhance children's academic achievements and development (Beau/Carter et al. 2009), and children who are treated by their

mothers with warmth tend to have higher self-esteem (Cheng/Furnham 2004). In summary, previous research showed that authoritative parenting is linked with characteristics of self-regulated learners, while authoritarian parenting does not support the development of self-regulatory/SRL skills.

### 2.2.4 Parental attitudes towards learning

An attitude represents the constellation of internalised perceptions and assessments that someone has about an object, a person, a group or an idea (Bohner/Dickel 2011: 392). For instance, individuals may evaluate positively or negatively different habits, different nationalities or different foods. There is a limited number of studies examining the relationship between SRL and parental attitudes towards learning. For example, Steinbach/Stoeger (2015) found that parents' attitudes specifically towards SRL influence the autonomy they provide to their children whilst learning. More generally, previous research has shown that parents' beliefs about literacy can encourage or discourage children's ability to learn how to read and write as well as their literacy development (Lynch et al. 2006). Thus, we expect that parent's beliefs about other subjects, as well as learning in a broader sense, can affect the way their children learn and develop learning skills.

## 2.3 Research questions

The findings of our literature review suggest that four important out-of-school factors may positively influence SRL: autonomy support, parental involvement, authoritative parenting and parental attitudes towards learning. However, as we found through the review of the literature, the link between these parenting styles and practices and SRL skills has not been articulated in the literature yet. Therefore, a better understanding of how parental behaviours during childhood and adolescence may affect children's ability to self-regulate their learning is needed.

To this end, we set out to explore the potential role parental involvement may play in someone becoming a highly self-regulated learner. In particular, we explored shared patterns of parental involvement and influence in life histories (especially during childhood and adolescence) of adult professionals who were highly self-regulated learners. The term "pattern" is defined as an abstraction which recurs over and over again in the same or similar way and indicates how something is done or occurs under certain conditions (Alexander 1979: 181). We hypothesised that if such patterns of shared factors could be found in the life histories of these highly self-regulated learners, the patterns may provide fruitful vistas for future research to ascertain if there may be a link between these shared factors and the development of SRL skills. In other words, if similarities in parenting styles experienced by these individuals can be identified, this may suggest that those particular parental styles and practices that recur across the lives of

these different individuals may have somehow contributed to them becoming highly-self regulated. Such an exploratory analysis would of course not be able to prove a causal link, let alone tell us the directionality of causation, but it might allow us to hypothesise possible (causal) links and to formulate further research questions to be addressed through more explanatory research.

To guide our explorative study, the following research question (RQ) and sub-questions were formulated:

RQ: Which recurring patterns of parenting, if any, can be identified within the life histories of professionals who are highly self-regulated learners?

Sub-RQ1: What are the common experiences, if any, regarding autonomy support?

Sub-RQ2: What are the common experiences, if any, regarding parental involvement?

Sub-RQ3: What are the common experiences, if any, regarding authoritative and authoritarian parental behaviour?

Sub-RQ4: What are the common experiences, if any, regarding parents' attitudes towards learning?

# 3 Methodology

## 3.1 Research approach

In tackling our research questions, we used an approach pioneered by the sociologist of science Harriet Zuckerman in her seminal study of Nobel Prize laureates in the United States (Zuckerman 1977). Using in-depth biographical interviews with 41 laureates, Zuckerman was able to discover a series of key shared factors and patterns in the life histories of these scientists, across their life course, from childhood to formal education to adulthood and their scientific careers (Mortimer/Shanahan 2004). Examples of the patterns Zuckerman identified through her biographical interviews included parenting and upbringing, educational experiences, research training, mentorship and collaborations. Based on the analysis of these patterns, Zuckerman was able to develop a framework showing how advantage accumulates in science.

Similar to Zuckerman's approach, in our exploratory study, we drew on semi-structured, biographical interviews to identify shared factors in the life histories of highly self-regulated individuals. In a biographical study, the researcher collects and presents parts of life histories of the respondents. A biographical study is considered to be a type of narrative study (Leech/Onwuegbuzie 2007). Creswell (2007: 54) defined narrative studies as a method for investigating and understanding "experiences as expressed in *lived and told* stories of individuals". Semi-structured life history interviews are considered to be a powerful method for revealing information about an individual's biography

(Dicicco-Bloom/Crabtree 2006). Biographical interviews, therefore, are a powerful method of examining the life histories of highly self-regulated learners and systematically comparing them among each other. As we follow individuals from their social origins, their childhood and adolescence through their formal education and their professional careers, we can catch a glimpse of the role played at each life stage by, on one hand, socially-defined attributes and environmental conditions and their personal and psychological factors, on the other.

Methodologically, one of the gaps in SRL research is that the analysis of SRL has been over-reliant on quantitative methods, and scholars have called for more qualitative research approaches to be used to better understand how self-regulation plays out in different environments (Sitzmann/Ely 2011). Another methodological limitation in SRL literature is the over-reliance on studies conducted under laboratory conditions, which resulted in our continued lack of understanding of the impact of the environment – such as other parents or other people – upon an individual's development of SRL skills. Therefore, the research approach we adopted was motivated by the need to address these gaps.

Our approach, like any other methodological approach, has both advantages and disadvantages. The key advantages are that it's a novel and powerful way of examining in a more nuanced way the impact of family experiences on the development of self-regulated learning. It applies a qualitative approach successfully used in a seminal study in a cognate discipline – sociology – providing a potentially useful way of understanding the link between the environment and the development of self-regulated learning. The disadvantages are that this method does not allow to examine the possible causal links and their directionality, only to hypothesise correlation and potential causation. However, once the potential patterns are identified, they can then be examined in further detail using more traditional methods, including quantitative surveys or laboratory experiments. Also, as any method based on retrospective, self-reported data, biographical interviews may be affected by problems associated with accuracy of recall and retrospective coherence, among others (Nisbet/Wilson 1977; Townsend/Heit 2011).

### 3.2 Research design, instruments and procedure

The study adopted a mixed-method, qualitatively-driven, sequential quan->QUAL design, including a questionnaire followed by in-depth biographical interview.

#### 3.2.1 Questionnaire

A questionnaire to measure the extent to which participants exhibited self-regulated learning behaviours in their daily work was used to identify highly self-regulated individuals. A previously validated instrument, the Self-Regulated Learning at Work Questionnaire, SRLWQ (Fontana/Milligan et al. Littlejohn and Margaryan, 2015) was applied for

this purpose. There is a lack of validated questionnaire instruments to measure the scope and frequency of self-regulated learning among adult professionals. The SRLWQ, which has been validated and successfully applied in a range of knowledge work context (Littlejohn et al. 2016; Milligan et al. 2015; Milligan/Littlejohn 2016), was identified as a suitable instrument to use in this study. The full questionnaire is included in Appendix 1. The questionnaire is estimated to take maximum 15 minutes to complete and comprises the following sections:

1. *Personal details* – name; year of birth; job role; organisation; country
2. *Workplace learning activities (WLA)* – 12 items, based on a typology of work-place learning activities, derived from WPL literature (Fontana et al. 2015) were included in this section. WLA were measured on a 4-point scale (0- never; 1- a few times in the past year; 2- at least once a month; 3- at least once a week).
3. *Self-regulatory learning (SRL) strategies* –This section included 41 items derived from Zimmerman's three-phase model of SRL (Zimmerman 2005): planning (goal setting, strategic planning, self-efficacy and intrinsic value of task); imple-mentation (task strategies and techniques) and reflection (self-evaluation). These measures are detailed in Fontana et al. (2015). They were measured on a 4-point scale (0-not at all true; 1-sometimes true; 2-true most of the time; 3-always true).
4. *Email address:* An opportunity for the participants to provide their email in case they were interested in participating in a potential biographical interview.

An invitation letter describing the research and including a link to the online version of the questionnaire was circulated to various groups of professionals in a range of knowledge work domains, through various relevant channels (such as LinkedIn, internal institutional mailing lists, mailing lists of a number of professional networks the re-searchers had access to). As a result of the call, 160 individuals from several private and public organisations, including higher education institutions, NGOs, consultancies and international organisations, filled out the questionnaire.

Based on the scores derived from the questionnaire responses - whereby the scores on the 12 WLA and 41 SRL Strategies items were added up - the participants were assigned to three groups: low, medium and highly self-regulated learners. For the purposes of this study, those respondents who scored in the top 25 percentile on the questionnaire were considered to be highly self-regulated learners and invited to participate in a bio-graphical interview. We do not report any results of the questionnaire responses in this paper, because in our quan->QUAL design the questionnaire was used as an auxiliary, solely for the purpose of sampling for the biographical interviews which were our main focus and our main interest.

### 3.2.2 Biographical interview

Following the survey, those respondents who scored in the top 25 percentile of the overall sample and who had expressed interest in participating in a follow up biographical interview were contacted by email to arrange a suitable date for the interview. Those who had agreed to an interview (39 participants) were then asked to send the interviewer relevant biographical information in advance of the interview to help the research team prepare for the interview (such as a CV, a personal/professional website, a personal/professional blog or other relevant social media profiles, such as LinkedIn profile). These materials were reviewed and summarised prior to the interview by the researcher conducting the interview.

Due to the nature of the interviews being in-depth and biographical, it was considered important to conduct them face-to-face where possible. Therefore, priority was given to individuals who were located close to the researchers' work locations in the Netherlands and the UK. It proved to be impossible to conduct all 39 interviews face-to-face, therefore, some interviews were conducted by Skype.

Each interview lasted on average 2-3 hours, and several interviews were conducted in sections over several days. The reason was two-fold: to fit the respondents' busy schedules as well as to allow the interviewer to reflect on the emergent findings and to formulate additional questions and directions to explore.

The biographical interviews were semi-structured: they included a series of predefined questions to probe and explore a number of key personal and environmental factors derived from the literature. At the same time, the interviewer also probed and explored emergent themes and factors that would arise during the interview. The interview consisted of open-ended, behavioural questions and questions aiming to verify respondents' experiences (e.g. *"How about, just thinking about what you just mentioned, how about parenting style of your parents, so how they were with the children? What sort of activities they would do, the interaction, were they encouraging to do certain things")*. The factors broadly spanned three stages: childhood/adolescence, young adulthood (e.g. university years) and workplace/professional life post-education. Given the theme of this paper, we only focus on the factors related to the childhood phase. The interview script and a more detailed list of factors and probes are included in Appendix 2. Examples of the pre-defined factors we examined through the interviews included:

- Environmental factors:
    - Family composition and occupation of parents
    - Close friends in childhood and adolescence and their socioeconomic background
    - Parental control, parental attitudes to learning and knowledge

  - School experiences
  - Hobbies/interests as a child
  - Access to knowledge in childhood/adolescence (e.g. access to books, libraries, etc.)
- Personal-psychological factors:
  - Personal aspirations in childhood/adolescence
  - Examples of self-regulated learning activities in childhood/adolescence
  - Self-efficacy beliefs
  - Roles models
  - Sociability/circle of friends and what was learned from them
  - Independence in thinking vs dependence on authority and how these were encouraged/discouraged by parents
  - Emotional control
  - Persistence

The interviews were audio-recorded and transcribed. A copy of the transcript was sent to the respondents to get their approval and, if necessary, to request clarifications or additional information. Participants were also given a copy of their questionnaire results and a copy of the audio-recording of their interview as courtesy.

### 3.3 Characteristics of the interview sample

The respondents came from a range of countries across Europe, Russia, North America, Asia and the Middle East. They represented different age groups and came from different private and public organisations, from knowledge work contexts. The key characteristics of the 39 interview respondents are summarised in Table 1. In this paper, we don't examine the role of age, gender or country on the development of self-regulation, therefore, these demographic details are not analysed but simply used here to characterise the sample.

**Table 1. Key characteristics of the interview respondents (n-39)**

| No | Year of birth | Gender | Country | Occupation/industry |
|---|---|---|---|---|
| 1 | 1977 | M | Netherlands | University lecturer |
| 2 | 1976 | M | Netherlands | Director of an NGO |
| 3 | 1971 | M | UK/Sweden | Consultant in an international development |
| 4 | 1977 | F | Netherlands | Learning advisor in a multinational corporation |
| 5 | 1965 | F | UK | Freelance consultant |
| 6 | 1976 | F | Germany | Freelance consultant |
| 7 | 1961 | M | UK | Technical consultant in a company |

| | | | | |
|---|---|---|---|---|
| 8 | 1986 | F | Russia/Germany | Ph.D. researcher in gender studies |
| 9 | 1977 | M | Belgium | University senior lecturer |
| 10 | 1971 | M | Netherlands | Curriculum developer |
| 11 | 1972 | M | Netherlands | ICT advisor in a university |
| 12 | 1973 | F | Russia/Israel | International sales director in a large company |
| 13 | 1966 | F | Scotland | University lecturer |
| 14 | 1969 | F | Italy/UK | eLearning consultant |
| 15 | 1986 | M | Austria | Freelance consultant |
| 16 | 1976 | F | Armenia | Director of Research in an educational centre |
| 17 | 1974 | M | Scotland | University senior lecturer |
| 18 | 1952 | F | Scotland | University lecturer |
| 19 | 1979 | F | Germany | University lecturer |
| 20 | 1962 | F | UK | University professor |
| 21 | 1969 | F | Estonia | Senior researcher in a university |
| 22 | 1953 | F | Finland | Researcher in a university |
| 23 | 1980 | F | Canada | Ph.D. researcher/Instructional designer |
| 24 | 1982 | M | Bosnia/UK | University lecturer |
| 25 | 1955 | F | Bosnia/UK | University professor |
| 26 | N/A | F | Singapore/Netherlands | Ph.D. researcher |
| 27 | N/A | M | UK | eLearning advisor |
| 28 | N/A | M | UK | University lecturer |
| 29 | N/A | F | Northern Ireland | University researcher |
| 30 | N/A | F | USA | Learning and Development manager in a multinational corporation |
| 31 | 1979 | F | UK | Ph.D. Researcher in criminology |
| 32 | N/A | F | Netherlands/UK | University lecturer |
| 33 | N/A | F | USA/Scotland | University lecturer |
| 34 | N/A | F | UK | University lecturer |
| 35 | N/A | F | UK | Ph.D. researcher |
| 36 | N/A | F | UK | University lecturer |
| 37 | N/A | M | UK | Researcher at a university |
| 38 | N/A | F | Belgium/UK | Researcher at a university |
| 39 | N/A | M | UK | University lecturer |

### 3.4 Data analysis

The interview transcripts were initially coded using a scheme of pre-defined, theory-based codes, through Atlas.ti software. Each of the 39 interviews was cross-coded by three investigators. The coding scheme was revised several times. The initial codes included "autonomy support and freedom", "parental involvement", "parental non-involvement", "authoritative", "authoritarian", "positive attitudes towards learning" and "negative attitudes towards learning". In addition, the data were coded for some demographic characteristics such as parents' education and family structure. Furthermore, several sub-codes were created to capture differences between maternal and paternal parenting styles, since in some cases they were not aligned.

The validity was ensured by, first, building the coding scheme on literature capturing multiple perspectives of the related theory and, second, by an in-depth discussion of the different categories and labels among the three investigators. The appropriateness of the codes and the literature were discussed within a broader group of four investigators.

In order to ensure reliability, a Cohen's kappa was used to measure inter-rater reliability. Three investigators coded in pairs five random interviews (20% of the interviews) and calculated the Cohen's kappa of the segmentation and the codes in a manual Excel spreadsheet. The average Cohen's kappa for this reliability check was 0.75 indicating that the coding in this phase was sufficiently reliable.

The coding process was comprised of three phases. In phase one, the three investigators coded the interviews by first doing the segmentation, then using the labels of the coding scheme and afterwards testing them for reliability. For instance, the following quotation was coded as 'parental involvement': "*We weren't a family who had hours of in-depth discussion, but I also felt that my parents were there if we wanted to talk about things. They always took an interest in our lives and what we were doing. You know, they came to sports day, they came to plays, they participated and encouraged us to do outdoor activities and sporting things."* In phase two, more specific, data-driven, open sub-labels for some codes were created, tested for reliability and revised accordingly. Examples are the following sub-labels created for the main label 'positive attitudes towards learning': "books", "lead by example", "highlight the importance of learning" and "homework assistance". The reliability of the sub-labels was tested by two independent coders on the calculated required number of quotations per label using the following equation:

$$2 \times (n \times n)$$

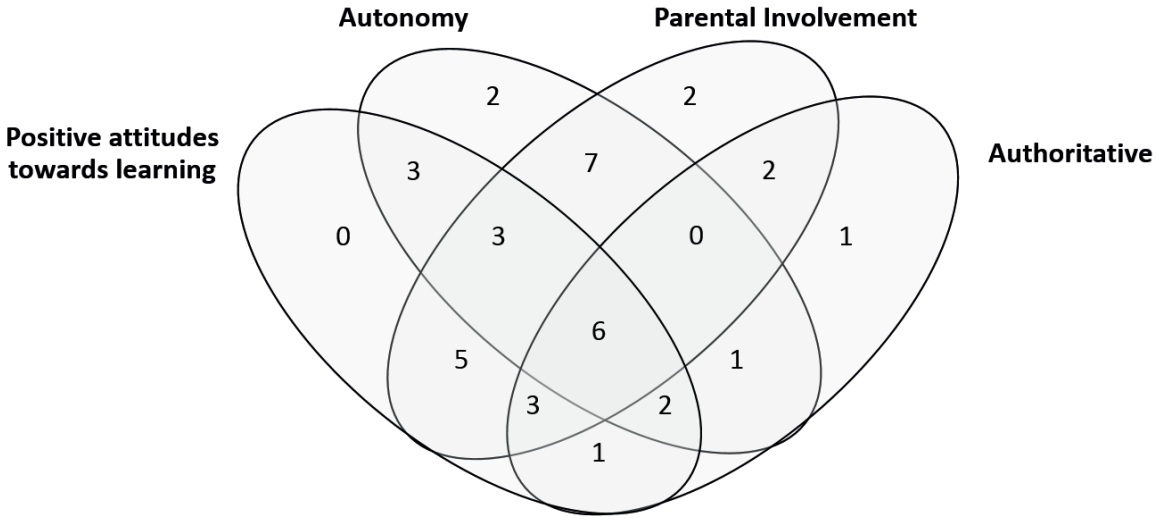
The average Cohen's kappa for this test was equal to 0.76. Finally, in phase three, the respondent-level analysis, the coded files were summarised per case. Subsequently, the frequency of the codes in the dataset was counted and the findings for each research

question were summarised. Due to data loss, one interview was not used for analysis. The results of the analysis of 38 interviews are presented in the next section.

# 4 Results

With regards to parental styles, Figure 1 provides an overview of the number of the respondents who mentioned one, two, three or all of the four investigated parental styles. Based on the analysis, the most recurrent types of parenting were: the combination of autonomy support and parental involvement, the combination of parental involvement and positive attitudes towards learning and the combination of all four expected parenting styles.

*Figure 1: Co-occurrence of responses*




## 4.1 Autonomy support and freedom

The majority of the respondents (n=24/38) mentioned that their parents supported their autonomy and freedom, whereas four indicated no autonomy support and ten did not mention autonomy support at all. The participants who experienced parental support for autonomy and freedom indicated that, during their childhood and adolescence, they were given the opportunity to make decisions, their opinions were taken into consideration and they did not perceive pressure from their parents to follow specific directions.

The analysis of the sub-codes for this category showed that "freedom of choice" was the most frequently recurring paternal behaviour (n=15/38) and many respondents said they were encouraged by their parents to be independent (n=10/38). For instance, one of the respondents said, *"They didn't put pressure on us. So, if you look at school…it was more helping and trying to see what we needed to make sure that we can do what*

*we needed to do. So it was supportive, I think, that's the way, very supportive in all that we did. On the other hand, I think they left us quite free in what we did. So, in choosing what we wanted to do we were free, but on the other hand if we choose something we needed to do it well."* Four out of 38 respondents related autonomy to the trust showed by their parents and another four suggested they had no strict rules in their family environment. For example, one of these respondents said, *"My Mum is a very trusting parent and created a lot of space for us and [was] incredibly supportive."*

Four respondents out of 38 indicated examples showing that their parents did not encourage them to be autonomous. Ten respondents did not mention autonomy at all. No noticeable difference was found between autonomy support given by mothers and fathers. In summary, autonomy support, freedom of choice and independence in determining their needs and planning their own tasks and responsibilities were found to be key factors mentioned by a significant proportion of participants. Therefore, these factors could be hypothesised to potentially lead to the development of self-regulatory skills.

### 4.2 Authoritative and authoritarian parenting

Within this category, eleven out of 38 participants indicated examples suggesting their parents may be classified as authoritative, and ten out of 38 participants as authoritarian. Additionally, five out of 38 respondents mentioned both authoritative and authoritarian parenting and twelve out of 38 did not mention this category at all. Regarding authoritative parental style, most of the experiences shared by the interviewees indicated styles in which parents express their expectations through reasoning and rational arguments (n=13/38). Fewer examples of parental styles encouraging children to set achievable goals were observable in the data (n=6/38). As one participant explained authoritative parental style, *"…my mum, she reasoned with me about it, she would always sit down and reason with me and tell me. And what I like about her approach, she would always go and show me 'This is the future, do you want to do what I'm doing? Or do you want to be able to choose?"*

There were two categories of participants who had authoritarian parents: those who grew up in an environment with strict family rules which they had to follow (n=7/38) and those who had parents who directed and controlled their decisions against their will (n=11/38). The latter parenting style is demonstrated by the following example from an interviewee, *"From a parenting style they were an Irish Catholic family, highly religious and in some ways very dominating type of parenting style. You did what you were told to do basically or you were punished. But at the same time my Mother would spend all summer long, she would make sure that we would go to the library once a week to get books to read."*

Within our interview dataset, the distinction between authoritative and authoritarian parenting was not clearly identified and no patterns regarding differences in maternal and paternal parental styles could be identified. However, the responses of the participants showed that even though in many cases the parents were controlling and did not give their children enough space for decision-making, they were still highly involved and positive towards learning and education.

### 4.3 Parental involvement and non-involvement

With regards to parental involvement, 28 of 38 participants indicated that their parents were involved in their childhood and adolescent life in and out of school, making this the most recurring pattern among our interviewees. The majority of these participants grew up in environments where structured routines and family activities (n=22), support of children's interests (n=13), or homework assistance (n=7) were considered important in providing considerable support and stimulus for self-reflection: *"Well my parents, I think they tried to show us the area and have us travel a lot. […] So I remember my mum and dad would take us to the park and to picnics. All things that were affordable as well. So sometimes go, well to different playgrounds to play with the zip lines, with see-saws, the usual in play grounds. They would try and take us to the swimming pool, the local swimming pool. They would try and take us when they could afford it, to take us to see pieces of history of the area."*

Apart from family activities, 13 out of 38 participants said that their parents were involved particularly in actively supporting their interests. *"So when I mostly had interests and I'd do a little reading and there was lots of opportunity to do that and there was a lot of encouragement. So, we went to the library very often and I would pick my books, they also gave me some binoculars when I was 10 for instance to encourage me in my bird watching and those kinds of things."*

Some participants (n=7/38) also mentioned homework assistance by their parents as a type of parental involvement. *"Something I often think about with parents is if I had a maths problem and I wanted the answer for my homework I would go to my father because he would give me the answer, but he would also give me a lecture that was way above my head on the topic. […] If I really wanted to understand something though and that did happen sometimes, I would go to my Mother and she wouldn't give me the answer, but she would help me find it myself, she would really teach me."*

Ten out of 38 participants reported that their parents were not involved in their childhood or adolescent life. We hypothesise that the self-reliance they had to develop, due to the non-involvement of the parents, may have contributed to them becoming highly self-regulated learners. *"Nobody was helping me with school because before if I had some question with maths my mum always told me you can ask your father, he is good at that. And very early I understood that he's not that good and he is not able to*

*help me with everything or he's just absent or he's just drinking and she [mother] was also [drinking], […] and so I realised ok nobody's helping me with school or with anything. So, I have to do stuff on my own."*

The analysis revealed difference between maternal and paternal involvement. In particular, no one indicated non-involvement by their mother, but five out of 38 said that their father was not involved. Furthermore, seven respondents mentioned parental involvement only on their mother's part.

### 4.4 Attitudes towards learning

More than half of the respondents (n=24/38) stated that the attitudes of their parents towards learning were positive, leading to this being another key common experience in the life histories of the interviewees in this study. No one mentioned any negative attitudes towards learning by their parents and 14/38 made no references to their parents' attitudes towards learning. Four key parental attitudes towards learning were observable in the data: repeatedly highlighting the importance of learning (n=14), encouraging book reading (n=10), leading by example (n=6/38), and providing the financial support to fund children's pursuit of their interests (n=3). In particular, many respondents recounted examples of their parents emphasising the importance of learning and diligent study in multiple ways. *"The value was always learning and studying a lot, they would always point it out, even though they didn't have the backgrounds"***.** Ten respondents were raised by parents who enjoyed reading, were regularly visiting the library with them and gave them the opportunity to always have books available to read. *"My parents read a lot of books, not something like high-level classics […] but they read a lot of books and my parents appreciated books and reading […] In my family we had a lot of books and my parents read books to us and they bought books for us."*

Through these parental attitudes to learning the participants were supported, since their childhood years, to value and invest time and effort in learning. Many respondents who discussed their parents' attitudes towards learning said that they were inspired by their parents' stories and drew on these as examples for them to develop a life-long appreciation for learning. On the basis of these findings, we hypothesise that positive parental attitudes to learning may positively impact the development of self-regulation in learning.

Finally, some demographic characteristics regarding parents' educational background and family structure were explored. Eight respondents grew up with divorced parents and some were also partly raised by other members of the family apart from the parents. The analysis of the data on family structure and parental educational level revealed no patterns.

# 5 Discussion, conclusions and recommendations

The purpose of this exploratory study was, firstly, to identify family-related factors which could potentially lead to someone becoming a highly self-regulated learner and, secondly, to formulate hypotheses for future, explanatory studies to ascertain the nature and the directionality of the links between these factors and the development of SRL. To this end, similarities and common experiences of professionals who are highly self-regulated learners were analysed using the life-history, biographical interview method focusing on the common experiences related to parenting styles recurring within their life histories. Our findings suggest that there are some parenting styles that could potentially contribute to the development of SRL skills and dispositions. These parenting styles are those combining either, autonomy support and parental involvement; parental involvement and positive attitudes towards learning and/or all four factors: autonomy support, parental involvement, authoritative parenting and positive attitudes towards learning. Our exploratory findings pave the way for future research to explore the precise role of these factors in the development of SRL skills, potentially through future correlational and longitudinal analyses.

With regards to the research questions, the following responses can be formulated on the basis of our data. The first sub-question was: "What are the common experiences, if any, regarding autonomy support?" Our findings indicate that most of these professionals who are highly self-regulated learners experienced autonomy within their family environment. The most common types of autonomy support within this sample were freedom of choice and independence. Grolnick (2009) found that children who perceive autonomy in their problem-solving attempts are more likely to be prepared to solve academic tasks and set performance goals on their own acquiring strong self-regulation skills. Similarly, Wong (2008) found association between parental autonomy support and the development of self-reliant learners who have the freedom to interpret the importance of learning in their own way, since parents who support autonomy exert less control towards homework and motivate their children to solve problems and value learning independently. In line with these previous empirical studies, our findings suggest that people who are more independent during their childhood may be more capable of self-regulating their learning in the future. Therefore, we propose the following three hypotheses to be explored in future research:

> *H1. Autonomy support and freedom provided by parents during childhood and adolescence contribute to the development of SRL skills.*
> *H2. Children who grow up in an environment with structured routines and regular family activities are more likely to become more highly self-regulated learners than children who grow up without these routines and activities.*

*H3. Children who are given autonomy and freedom by their parents are more likely to become more highly self-regulated learners than children who do not experience autonomy and freedom while growing up.*

The second sub-question was: "What are the common experiences, if any, regarding parental involvement?" Our findings revealed that parental involvement is the most dominant (defined as the most frequently recurrent) pattern in the life histories of highly self-regulated learners. Furthermore, parental involvement or non-involvement were the only parenting styles mentioned by all participants. In particular, the majority of the respondents suggested that their parents used to organise regular family activities, creating an environment with structured routines, and that they were highly involved and supportive regarding children's interests. Previous research has shown that the development of personal, self-driven interests are predictors of high self-determination (Soenens/Vansteenkiste 2005). Additionally, this finding can be explained by the research of Effeney et al. (2013) which found that well-established study routines formed early at home with the help of parents allow children to adopt self-regulated strategies of learning whereby they can direct and plan their learning independently. Furthermore, we found an indicative association between parental involvement and parental gender. In particular, we found that in our sample, the most involved parent was the mother and in most of the families the father was the one who had heavier workload or other tasks which kept him away from home preventing closer involvement in children's upbringing. Grolnick/Ryan (1989) suggested that, compared to paternal involvement, maternal involvement may be more likely to play a more prominent role with respect to the development of self-regulatory skills in children. According to Cheng/Furnham (2004), self-esteem, which is an important characteristic of self-regulated learners, is strongly associated with maternal care. Although in this study, we cannot draw conclusions regarding the contribution of each parental gender to SRL, we propose the following hypothesis for future research:

*H4. Maternal involvement is positively correlated with the development of self-regulatory learning skills.*

The third sub-question was: "What are the common experiences, if any, regarding authoritative and authoritarian parental behaviour?" The findings indicate that many parents expressed their expectations through rational arguments, encouraging the participant to set achievable goals for themselves. Other parents exhibited a controlling style directing their children's decisions, mostly regarding their education, and setting strict family rules for them. However, even though these parents were using authority in such a way that they did not allow their children to feel free to make their own decisions and planning, they were still involved actively encouraging them to learn continu-

ously. This outcome could have been different, if the data had contained more dimensions of parental authoritativeness than the one related to expectations (Gray/Steinberg 1999). Regarding this parental style, this study did not identify whether an authoritative or authoritarian style had a more dominant role in the development of SRL skills. However, this was an unexpected and counter-intuitive result suggesting how a parental style such as authoritarianism can benefit children in developing these skills.

The fourth sub-question was: "What are the common experiences, if any, regarding parents' attitudes towards learning?" The most recurrent common experience mentioned with regards to parental attitudes towards learning was parents repeatedly highlighting the importance of learning and education and actively facilitating the early literacy development of their children. This finding is in line with the research of Perry/VandeKamp (2000) which showed that children who are given opportunities to develop their literacy skills and select their own reading strategies are more likely to become capable of directing their own way of reading and their own literacy preferences. Previous research showed that children who are exposed to books and challenged to set their own reading performance goals at a young age have better chances of adopting self-regulated reading tactics and therefore developing higher SRL skills (Paris/Paris 2001). Although there is no literature that relates children's self-regulation skills with parental attitudes towards learning, our findings suggest that parents who encourage their children to continuously learn and introduce them early to books and reading may positively affect children's ability to self-regulate their learning in the future. Based on these findings, we, therefore, propose the following hypothesis for future research:

> *H5. Parental attitudes towards learning contribute to the development of SRL skills.*

To take forward research on these hypotheses and themes explored in this study, we suggest two broad sets of approaches. First, these findings and hypotheses could be further refined and extended by using additional biographical interviews with larger samples from other countries and occupational groups. Such future biographical interview data sets can be combined with ours to see if these patterns could be replicated and whether other patterns and regularities may emerge. Such larger samples can be split by age, gender, country/region, occupation to see if these personal-demographic factors contribute to the differences and similarities observed. Importantly, such future exploratory biographical studies could include a control group (low self-regulated learners) comparing and contrasting the patterns among these with those identified among the highly self-regulated individuals.

Second, having a broader and refined scope of all the potentially relevant factors identified through exploratory research, future studies could progress to explanatory research, in particular, using correlational, longitudinal or laboratory-based designs.

For instance, studies exploring interaction effects of different contexts (in- and out-of-school), as well as personal (personality, interest) factors may shed light on which factors are most prominent in shaping SRL skills and also allow us to explain why for example an authoritarian parental style may still result in high SRL.

## 6 Limitations

This study has some limitations which should be taken into consideration when interpreting the findings. First, this study examined the life histories of professionals in order to identify common experiences which contributed to their high levels of self-regulation. The study used retrospective, self-reported data and a form of qualitative analysis whereby emergent patterns are identified from the data. Such research designs can suffer from issues related to accuracy of recall, retrospective coherence, and researcher-bias in the interpretation of the data. This research design therefore provides only indicative patterns which should be explored through future correlational and/or longitudinal studies; it does not allow us to formulate any conclusions regarding the nature or the directionality of the links between the parental factors identified and the development of SRL skills. Additionally, only highly self-regulated individuals were studied; we did not collect interview data from the respondents who scored low on the self-regulated learning questionnaire, therefore, we cannot compare the patterns across the different SRL groups. Furthermore, the sample was small and all the selected participants were knowledge workers in academia, business, government or international organisations. Thus, in order to be able to further generalise the results, a future study should involve a larger group of respondents from different sectors, educational backgrounds, countries and age groups. Finally, a key limitation is that not all participants mentioned all the parenting styles explored, either because they did not have explicit memory of these or because the questions about each specific parenting style were not asked directly (although all participants were probed and encouraged to discuss the parenting styles they experienced in their families).

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## Appendix 1. Self-regulated learning questionnaire

**Self-Regulated Learning at Work (SRLW) Questionnaire**

**Page 1: PERSONAL DETAILS**

Welcome to the Self-Regulated Learning at Work (SRLW) questionnaire.

This questionnaire covers the learning activities you may be involved in, the actions you may perform to self-regulate your learning and the type of tasks you carry out at work. The questionnaire will take about 15 minutes to complete.

1. Your name

2. Year of birth

3. Your organisation

4. Your primary job role

5. Country you are based in

**Page 2: WORKPLACE LEARNING ACTIVITY**

Knowledge workers learn continually as they work, though they may not always be aware that they are learning. This section presents some possible learning activities you may have experienced during your work.

6. How frequently have you participated in the following learning activities **in the last year**?*

***This question is required.

| | *1= never* | *2= a few times* | *3= At least once every month* | *4 = At least once a week* |
|---|---|---|---|---|
| 5.1 Acquiring new information (e.g. by searching the internet or company knowledge base)* | | | | |
| 5.2 Working alone or with others to develop solutions to problems* | | | | |
| 5.3 Working alone or with others to develop new ideas* | | | | |
| 5.4 Following new developments in your field* | | | | |
| 5.5 Performing new tasks* | | | | |
| 5.6 Asking colleagues for advice * | | | | |
| 5.7 Attending a training course * | | | | |
| 5.8 Using self-study materials* | | | | |
| 5.9 Observing or replicating colleagues' strategies to complete a task or solve a problem* | | | | |
| 5.10 Finding better way to do a task by trial and error* | | | | |
| 5.11 Reflecting on previous actions* | | | | |
| 5.12 Receiving feedback on tasks from work colleagues* | | | | |

**Page 3. SELF-REGULATED LEARNING**

Knowledge workers may regulate their learning in different ways. This section provides possible actions you may have carried out while performing a work task and/or during learning activities at work.

7. To what extent do the following statements describe your behaviour?* Please indicate how you typically behave, rather than how you think you should behave.

*This question is required

| | *1 = not at all true* | *2 =sometimes true* | *3 = true most of the time* | *4 = always true* |
|---|---|---|---|---|
| 6.1 I set personal standards for performance in my job* | | | | |
| 6.2 I set goals (monthly or yearly) for myself in order to direct my learning activities* | | | | |
| 6.3 I set realistic deadlines for learning when I have identified a learning need* | | | | |
| 6.4 I ask myself questions about each learning task before I begin* | | | | |
| 6.5 I think of several ways to solve a problem and choose the best one* | | | | |
| 6.6 When planning my learning, I adapt strategies that have worked in the past* | | | | |
| 6.7 I use specific strategies for different types of things I need to learn* | | | | |
| 6.8 I think I will be able to use what I learn in this job in the future* | | | | |
| 6.9 It is important for me to learn new things in this job* | | | | |

**Page 4. SELF-REGULATED LEARNING (2)**

8. To what extent do the following statements describe your behaviour?* (continued)

*****This question is required.

| | *1 = not at all true* | *2 =sometimes true* | *3 = true most of the time* | *4 = always true* |
|---|---|---|---|---|
| 7.1 Learning that I undertake in this job is important to me* | | | | |
| 7.2 I can remain calm when facing difficulties in my job because I can rely on my abilities* | | | | |
| 7.3 When I am confronted with a problem in my job, I can usually find several solutions* | | | | |
| 7.4 Whatever comes my way in my job, I can usually handle it* | | | | |
| 7.5 My past experiences in my job have prepared me well for my professional future* | | | | |
| 7.6 I meet the goals that I set for myself in my job* | | | | |
| 7.7 I feel prepared for most of the demands in my job* | | | | |
| 7.8 I write down a plan to describe how I will achieve my learning goals* | | | | |
| 7.9 I ask myself how what I'm learning is related to what I already know* | | | | |
| 7.10 I change strategies when I don't make progress while learning* | | | | |
| 7.11 When learning I make notes or diagrams to help organise my thoughts* | | | | |

**Page 5. SELF-REGULATED LEARNING (3)**

9. To what extent do the following statements describe your behaviour?* (continued)

***This question is required.**

| | *1 = not at all true* | *2 =sometimes true* | *3 = true most of the time* | *4 = always true* |
|---|---|---|---|---|
| 8.1 I focus on the meaning and significance of new information* | | | | |
| 8.2 I organise my time to best accomplish my goals* | | | | |
| 8.3 When I'm learning, I try to relate new knowledge I find to what I already know* | | | | |
| 8.4 When I'm learning, I bring together information from different sources (for example: people and resources)* | | | | |
| 8.5 I try to apply ideas from my previous experience to my job where appropriate* | | | | |
| 8.6 During learning I treat the resources I find as a starting point and try to develop my own ideas from them* | | | | |
| 8.7 I try to play around with ideas of my own related to what I am learning* | | | | |
| 8.8 In my job I think about possible alternative ways to do my tasks* | | | | |
| 8.9 When I can't understand a task, I ask my colleagues or others for help* | | | | |
| 8.10 I try to identify colleagues in my workplace whom I can ask for help if I need it* | | | | |

**Page 6. SELF-REGULATED LEARNING (4)**

10. To what extent do the following statements describe your behaviour?* (continued)

*****This question is required.

| | *1 = not at all true* | *2 =sometimes true* | *3 = true most of the time* | *4 = always true* |
|---|---|---|---|---|
| 9.1 When I am unsure about something I look it up* | | | | |
| 9.2 I fill in the gaps in my knowledge by getting hold of the appropriate material* | | | | |
| 9.3 When faced with a challenge in my job I try to understand the problem as thoroughly as possible* | | | | |
| 9.4 I like opportunities to engage in tasks that require me to learn* | | | | |
| 9.5 I prefer tasks that arouse my curiosity, even if I need to learn a lot to achieve them* | | | | |
| 9.6 I know how well I have learned once I have finished a task* | | | | |
| 9.7 I ask myself if there were other ways to do things after I finish a task* | | | | |
| 9.8 I think about what I've learned after I finish* | | | | |
| 9.9 I think about how what I've learned fits in to the 'bigger picture' at my organisation* | | | | |
| 9.10 I consider how what I've learned relates to my team/group* | | | | |
| 9.11 I try to understand how new information I've learned impacts my work* | | | | |

**Page 7. FOLLOW-UP**

10. We might contact you again for a follow-up interview. Would you be willing to participate*?

    ***This question is required.**

    YES ☐
    NO ☐

11. What is your email?

    ☐

**Page 9. THANK YOU PAGE**

Thank you for taking our survey. Your responses to the questionnaire will allow us to get to know more about the type of work you do and what type of self-regulated learner you are.

If you have agreed to participate in the follow-up study, we may contact you again for an interview. If this is the case, we will send you an invitation explaining what's involved soon.

## Appendix 2. Semi-structured biographical interview questions

**1. Introductions**

- Interviewer introduces herself (position/institution)
- Interviewer introduces the project (what are we investigating/why is it important/relevant to investigate it)
- Interviewer outlines some more details: *we are looking for regularities in the life histories of highly-self regulated individuals such as yourself. We expect this will shed some light on what makes individuals self-regulated learners.*
- Interviewer now gives the word to the respondent: *we are interested in the environment you grew up in, your family, your friends, your education, your interests from the more distant to the more recent past – Could you tell me about this?*

**2. Factors to explore during the interview**

**Environment/context**

- Family (composition/occupation of family members/socioeconomic status; for siblings: birth order)
- Close (childhood/youth) friends (occupation/socioeconomic status; group small/large/loner)
- Parents (parental control: overprotective or encouraging freedom/exploration/independence; attitudes to learning: encouraging learning for own sake/valuing independent learning)
- Educational experiences related to choice of vocation including educational history (kindergarten, school –incl. type, HE, self-pursued learning in relation to vocation)
- Liked to read as a child; age when they learned to read
- Hobbies/interests (incl. self-pursued learning in relation to interests/hobbies)
- Access to knowledge
- Situations of need and 'lack' that may have motivated them to learn

**Personal factors**

- Religion
- Conceptual thinker; systematic vs. non-systematic thinking practices; mode of thinking (visual/conceptual-analytic/social)
- Aspirations; existence of role models; visualising possible-self (desired possible-self, feared possible-self); who are the role models- adult or peer, real or literary character; nature of association: knows personally or observes at a distance; at specific moments in life or throughout; intentionally self-sought or just those available in the current environment; role of technology in these vicarious processes – e.g. Observing someone through their blog, delicious or twitter
- Work ethic
- Sociable vs. loner
- Finding things out for oneself vs. dependent on authority (parents/school/church/other institutions)
- Regulating and adapting the context rather than just oneself
- Persistence
- Emotion control
- Selective attention/ability to inhibit distractions/"planfulness" (=full of resources and plans or acting according to a plan?)
- Other construct questions around personal/psychological characteristics?

**Examples of SRL activities and behaviours**

- Planning (including all sub-processes)
    - Goal setting (outcome or process goals; performance or mastery goals[goal orientation]; hierarchy of goals)
    - Should goal commitment, specificity of goals (quantifiable in terms of number of strategies; frequency of behaviour; or desired outcomes) and difficulty of goals also be here? Also proximal and distal goals, duration and intensity of goals, goals assigned by authority figures or self-set? Under what conditions assigned and under what conditions self-set?
    - Also discrepancies between current and desired state should be here?
- Performing (including all sub-processes)
    - Feedback seeking/feedback acceptance
- Reflection (including all sub-processes)
    - Goal revision (changing or disengaging from goals)
    - Self-reactions (self-satisfaction, self-reward strategies)
- Workplace factors
    - Simultaneous pursuit of multiple goals
    - Team processes
    - Multi-person processes
    - Access to knowledge and expertise
    - Multiple tasks
- Current discretion at their work (are they free to set their own problems or do others tell them what to work on/think about)

## 3. Examples of prompts and probes to use in the interview

**Prompts** (**Environment/context** – for a full list of factors/constructs/concepts see below)

- You mentioned X, Y… What about?  Can you tell me about Z too?

**Probes**

- For more detail: When did that happen? Who else was involved? Where were you during that time? What was your involvement during that situation? How did that come about? Where did it happen? What would that look like? How do you do that? What were other people doing then? How did others respond to that? If I were watching you doing this, what would I see?

- For elaboration: Could you say some more about that? Can you tell me more about that? Would you elaborate on that? That's helpful. I'd appreciate if you could give me more detail. Can you give me an example?
- For clarification: You said X… What do you mean by X? What you are saying is very important, and I want to make sure I get it down exactly the way you mean it: please explain some more. When you say Y, what are you actually thinking/doing? It sounds like you are saying Z. Is that a fair summary? So you are saying Z?
- To get their feelings, thoughts, and rationales: How did you feel about that? Why was that important to you? Why does that matter? Why does that stand out in your memory? Why do you think you noticed that? What was significant about this to you?
- To ask about variations: Do you always do this in this way? What might make you do this differently? Have you always felt this way? How has your approach changed over time? What motivated this change?
- To test their ideas (using an opposite situation): Last week a respondent said s/he thought that… What do you think about that? I recently read about X doing Y… What do you feel about that? Suppose X… What would you think/do?
- To review all possible factors: What about X? Is Y important to you?

**Prompts for personal/psychological factors**

- You have now told me in great detail about the environment you grew up in. You also mentioned a lot about yourself, for example… Could you tell me more about this?
- use probes above, but have specific prompts about each person's personal/psychological factors, constructs and concepts ready – this should be updated for each respondent after having studied the biographical material

**Prompts for self-regulated learning**

- We have already talked about self-regulated learning. You mentioned X, Y… Can we now focus more specifically on this?

**Wrap-up**

- Thank the respondent for participation
- Explain what will happen next (we'll send them the transcript to check, and provide a summary of their responses if they'd like to have one)

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# Extending research on self-regulation of physical activity in older age: Role of views on aging within an intensive ambulatory assessment scheme

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## 1 Introduction

In the light of demographic change, the promotion of physical activity (PA) among older adults is a major public health challenge. Regular PA has been shown to reduce and prevent a range of aging-associated health events, such as cardiovascular diseases, diabetes, and declines in activities of daily living and cognitive functions (e.g., Baker et al. 2009). Despite these established benefits, PA levels often decline considerably with age (i.e., Jefferis et al. 2015), and only 25% of the adults aged 65+ meet the WHO-recommendation of exercising at least 150 minutes per week in at least moderate intensity (Lee et al. 2008; Rütten et al. 2005).

Deficits in self-regulatory processes, e.g., perceived behavioral control, can be seen as one of the main reasons for individuals' failure to move from the intention to the performance of PA or to maintain the activity in the face of internal or external barriers. So far, most intervention studies that implemented behavior change techniques (BCTs) on PA focused on young or middle-aged adults or addressed older adults in specific settings such as rehabilitation programs. However, it would also be important to study the implementation of BCTs among relatively healthy, mobile, community-dwelling older adults.

It is important to note, however, that BCTs that have been shown to be generally effective at increasing PA in younger age groups, may not work equally well in older age. For example, French et al. (2014) conclude in their systematic review on the effectiveness of BCTs for increasing PA that applying techniques involving self-regulation (through planning) was not as successful as expected. Null-findings from a recent randomized-controlled trial that aimed at PA promotion in older adults using self-regulatory BCTs are in line with these results (Warner et al. 2016). Furthermore, PA among older adults in a non-interventional (naturalistic) setting is not well studied either and may not only be associated with established social-cognitive variables, such as attitude or intention towards PA, but also reflect age stereotypes and individual views on aging. Thus, in our study, we aim to enrich traditional social-cognitive models with views on aging in

different life domains in order to better understand the initiation and maintenance of light activity (steps) as well as moderate to vigorous PA (MVPA) in community-dwelling, healthy older adults. In this work, we consider views on aging as a crucial influencing factor for older adults' self-regulation of PA, i.e., the ability to adaptively regulate one's emotions, cognition, and behavior in order to respond effectively to internal as well as environmental demands (McClelland/Cameron 2012; Raffaelli et al. 2005).

### 1.1 Determinants of PA and the role of views on aging

Theoretical approaches aimed at explaining health-related behavior, e.g., the "Theory of Planned Behavior" (TPB; Ajzen 1991) or the Health Action Process Approach (HAPA; Schwarzer 1992), address social-cognitive variables such as attitude, risk perception, or self-efficacy. Regarding PA, these models are well-established, and meta-analyses and reviews on behavior change interventions targeting these concepts show that they are generally effective (Williams/French, 2001). However, research in this field is mostly focused on younger and middle-aged adults (i.e., Ashford et al. 2013), limiting the generalizability of study results. Although intention and self-efficacy/perceived behavioral control emerge as relevant predictors of older adults' PA levels, there is evidence that both factors decrease in their mean levels with higher age (Bouchard et al. 2012; Plotnikoff et al. 2009). Hence, established social-cognitive approaches may be limited in explaining PA among older adults as they outline the determinants of goal-directed behavior in general, but are not tailored to the phase of retirement. For example, time-management might be less central for many older people in retirement; retired adults might also be less willing to schedule their everyday lives including PA, but prefer to enjoy the "freedom of retirement" instead. Hence, internal states like beliefs or expectations may be more important. Supporting this view, Bouchard et al. (2012) showed that higher age was associated with reduced readiness (i.e., self-confidence) and lower expectations with regard to lifestyle modification.

Therefore, we argue that in the post-retirement phase, age-specific PA determinants need to receive more attention. In particular, negative age stereotypes that are closely linked to misinterpretations (i.e., "PA in old age is awkward, useless, or even harmful") prevail and may restrict older individuals' activity behavior (Chalabaev et al. 2013; Thogersen-Ntoumani et al. 2008) and thus should be investigated more closely. According to the Stereotype Embodiment Theory (Levy 2009), people adopt such age stereotypes early during their socialization process and integrate them into their self-concepts at older ages. Consequently, as self-directed views on aging, they may influence behavior such as PA in later life.

Conceptually, we regard views on aging as related to the social-cognitive variables of the TPB, but nevertheless essentially distinct. For example, in extended TPB-models, descriptive norm refers to estimations of the number of significant others (e.g.,

people of the same age group) performing PA. Age stereotypes about physical capabilities may be applied in order to arrive at such estimates of physically active older adults. However, age stereotypes go beyond descriptive norm in that they comprise broader aspects of physical functioning, such as health constraints or preferences, in older adults' PA behavior. Similarly, social-cognitive variables, such as outcome expectancies and perceived behavioral control, are closely linked to views on aging which entail beliefs about the possibility to control or even reverse age-related changes. At the same time, views on aging are distinct from the social-cognitive variables of the TPB in that they capture beliefs and expectations about as well as attitude toward the aging process as a whole. Given these links of views on aging with social-cognitive determinants of PA, we argue that the consideration of views on aging is crucial when it comes to studying self-regulation of PA in older adult samples.

The term "views on aging" refers to a broad family of constructs (Diehl et al. 2014). "Views on aging" is used as an umbrella term that reflects both views on aging-related to other people (e.g., age stereotypes) and self-perceptions of peoples own aging process. In this article, we focus on self-directed views on aging – as opposed to generalized views on aging or old age. Self-perceptions of aging describe individuals' subjective experiences of their own aging process and have been originally approached with simple unidimensional variables. One well-established unidimensional variable with a long research tradition is the construct of subjective age which refers to the question of how old a person feels (Kastenbaum et al. 1972). Feeling younger than one's chronological age is an indicator of an overall positive perception of one's aging and has been found to predict various developmental outcomes, including health and well-being (Westerhof et al. 2014). Emerging empirical results suggest a link between views on aging and social-cognitive determinants of PA (Caudroit et al. 2012; Emile et al. 2013; Wolff et al. 2014; Wurm et al. 2010). Those individuals who feel younger than their chronological age report higher intentions to be active, which is partially mediated by higher self-efficacy scores (Caudroit et al. 2012). Furthermore, older adults often mention their own age as a barrier towards PA (Netz et al. 2008; Booth et al. 2002). Wurm et al. (2010) found that older people with more positive views on aging walked more regularly, even in the case of health problems.

Recently, researchers have stressed that self-perceptions of aging comprise positive and negative experiences alike and emphasized the need to discriminate views on aging in different life domains (e.g., Diehl/Wahl 2010; Kornadt/Rothermund 2011; Steverink et al. 2001). A multidimensional approach thus is necessary in order to identify the specific domains of self-perceptions of aging that impede or facilitate an active lifestyle in old age.

A further limitation of existing research on the link between views on aging and PA is the reliance on self-reports for the assessment of PA which comes with limitations regarding the validity and reliability of results (Jørgensen et al. 2009; Westerterp 2009).

For example, restrictions due to recall and response bias (Harada et al. 2001), high intra-individual variations in daily PA (Conroy et al. 2013), low ecological validity (Kaye et al. 2011), or social desirability (Rikli 2000) should be considered. As Prince and colleagues (2008) summarize in their review, self-reported PA levels were both higher and lower than directly measured PA, limiting reliance as well as attempts to correct for differences. Ambulatory monitoring of PA, i.e., accelerometer-based assessment, offers the advantage of a more objective and naturalistic measurement, which is integrated into individual`s daily routines. Thereby, even short bouts of PA are taken into account, which may be forgotten in retrospective self-reports but have been shown to contribute to cardiovascular health benefits (National Institutes of Health, 1996). Moreover, the aggregation of ambulatory PA data over several days or even weeks can attenuate intra-individual variation and better approximate mean levels of PA, facilitating comparison with WHO guidelines for PA (mean=150 min./week), and linkage to relevant (social-cognitive) predictors. Commercially available activity monitors have the advantage of easy handling and self-application, especially if contrasted with laboratory assessments such as calorimetry methods. Furthermore, evidence using energy expenditure as a criterion shows that they are accurate and reliable devices (e.g., Diaz et al. 2015). Therefore, those wearable devices have the potential to be implemented as facilitators of health behavior change.

### 1.2 The present study: Aims and expectations

The aim of this study was to explore individual views on aging as they may underlie health behavior self-regulation in older adults and could help understanding inconsistencies in the relation between behavioral intentions and actually performed health behavior (Sheeran 2002). To our knowledge, research has not yet examined the role of self-perceptions of aging (as one facet of views on aging) for planning and implementing PA goals among older adults in a naturalistic setting including accelerometer-based PA assessment. Hence, we expected that different facets of views on aging (subjective age as well as cognitions regarding physical decline, social loss, and continuous growth) can help to explain variance in PA levels among older adults, even after taking into account the variables of the Theory of Planned Behavior. In detail, we expected negative views on aging, i.e., an older subjective age, perceiving one’s own aging as a process of physical decline, and social losses and with little potential for continuous growth to be associated with lower PA levels.

# 2 Method

## 2.1 Recruitment, inclusion criteria and sample description

A total of 95 individuals aged 60 to 75 years from a participant pool of the Department of Psychological Aging Research at Heidelberg University were contacted by mail and invited to participate in a diary study on views on aging and PA monitoring. After mailing a letter to describe the present study, research assistants contacted potential participants by phone. *N*=84 individuals were reached and screened for the following inclusion and exclusion criteria: (1) retired or working less than 10 hours per week (including voluntary work), (2) no severe functional limitations or chronic conditions preventing PA, (3) no severe visual impairments, (3) no cognitive impairment, (4) no acute depressive episode. *N*=17 declined participation because of lack of time or interest, *N*=25 individuals did not meet inclusion criteria due to higher workload (>10h; *N*=14) or physical/mental health issues. *N*=2 participants did not wear their Fitbit longer than one week and had to be excluded subsequently due to missing PA data. Compliance among the remaining participants was very high with complete data over the 14-day period during waking hours. Hence, our final sample consisted of *N*=40 participants aged 60 to 74 years (*M*=66.3 years, *SD*=3.19) living in the Rhine-Neckar Metropolitan Region. 62.5% were female, 72.5% reported living together with a partner, and the majority had comparably high levels of education (67.5% German Abitur). The body mass index (BMI) ranged from 18.69 to 32.74 with a mean of 25.19 (*SD*=3.52). Regarding their past and typical PA-level, 57.5% of our sample reported to meet the WHO guideline of at least 150 minutes per week in at least moderate intensity, 40.0% stated not to meet the recommendation but expressed their wish to increase PA levels, and 2.5% had no intention to increase PA although not meeting the WHO guideline.

## 2.2 Procedure

Ethical approval for the study was obtained from the Ethic Review Board of the Faculty of Behavioral and Cultural Studies at Heidelberg University in January 2016. Written informed consent was obtained from all study participants upon enrollment. Our study consisted of a telephone interview and three home visits. In the telephone interview, participants were screened for *cognitive impairment* using the Cognitive Telephone Screening Instrument (COGTEL; Kliegel et al. 2007) to assess domains of cognitive function (verbal short-term memory, verbal long-term memory, working memory, verbal fluency, inductive reasoning, and prospective memory). Additionally, *functional limitations* were assessed with the physical functioning subscale of the SF-36 Health Survey (Ware/Sherbourne 1992). A composite score with higher values indicating more limitations is computed by summing up ten items (i.e., “climbing a flight of stairs”) that are rated on a 3-point scale. During the first home visit the main study variables were

assessed (described in the measures section; 2.3) and participants were instructed on wearing and using the activity monitor for PA tracking over the following 14-day period. The second home visit was used to synchronize PA data after seven days, and the third home visit to recollect the tracking device. Participants did not have access to the mobile companion app that is typically used to monitor daily activity data and provides individually tailored goals and feedback.

### 2.3 Measurement of the main variables

In order to assess PA, the wrist-worn, commercially available activity monitor Fitbit Charge HR (Fitbit, Inc., San Francisco, USA) was used. The device is based on tri-axial accelerometry. Depending on use, the monitor's battery lasts 5 to 10 days. Fitbit devices have shown high reliability, validity and accuracy in measuring step counts in healthy subjects, over longer durations, and at different walking speeds (Ferguson et al., 2015; Fokkema et al. 2017; Takacs et al. 2013). Results on reliability and validity in measuring PA with higher intensity than steps are scarce, however, indicating satisfying performance of the Fitbit (Ferguson et al. 2015). In our study, we used the device to detect MVPA (the sum of what Fitbit calls "active" and "very active") and light PA (steps per day) as per definition of the device algorithm which calculates active minutes in different intensity levels using metabolic equivalents (METs). Fitbit does not provide raw data such as counts per minute. With 14 consecutive days of measurement, previous recommendations of at least three to four days of physical activity assessment were largely exceeded (Hart et al. 2011) and we were able to cover a large proportion of natural fluctuations. The device was worn on the non-dominant hand during the day and only to be removed for bathing/showering and water activities.

For the assessment of *social-cognitive variables,* the item construction was based on guidelines by Ajzen (2006). Two items were used to measure *intention* (Cronbach`s *α=.77)*, namely, "I intend to be physically active at least 2.5 hours per week" with responses on a 7-point scale ranging from 0 ("not at all") to 6 ("completely right"), and secondly the subjective probability for realizing this goal (0%– 100%). For the mean score, the second item was multiplied by six and divided by 100, then the items were added and the sum was divided by two (i.e. Sieverding et al. 2010). *Attitude* was assessed with 17 bipolar adjectives regarding PA which had to be rated on a 7-point scale (i.e., pleasant – unpleasant), Cronbach`s *α*=.94. For the assessment of *subjective norm*, participants had to rate on a single item if important others expect them to be physically active, with responses on a 7-point scale ranging from 0 ("not at all") to 6 ("completely right"). *Perceived behavioral control* regarding PA was assessed with a single item analogous to attitude on a 7-point scale from 0 ("difficult") to 6 ("easy").

Regarding views on aging, *aging-related cognitions* were assessed with the AgeCog-Battery (Steverink et al. 2001; Wurm et al. 2007) which consists of three

subscales labeled *physical decline, continuous growth,* and *social loss*. Each subscale includes four items that are rated on a scale ranging from 1 ("definitely true") to 4 ("definitely false"). Example items are "Aging means to me that I am less energetic and fit" (physical decline, Cronbach's $\alpha$=.82), "Aging means to me that I can still learn new things" (continuous growth, Cronbach's $\alpha$=.70) or "Aging means to me that I feel lonely more often" (social loss, Cronbach's $\alpha$=.62). Higher values in mean scores for each subscale indicate more negative aging-related cognitions (i.e., aging is more likely to be associated with physical losses).

*Subjective age* was assessed according to Kastenbaum and colleagues (1972) on the four dimensions of (1) feel age (how old a person feels), (2) look age (how old a person looks), (3) do age (how involved a person is in doing "things" favored by members of a certain age group), and (4) interest age (how similar a person's interests are to members of a certain age group). As validation studies found one superordinate "subjective age" factor (Teuscher 2009), the four dimensions were averaged into a composite score (Cronbach's $\alpha$=.74). This score was divided by the respective participant's age and thus entered as a "proportional discrepancy score" in all analyses as recommended by Rubin and Berntsen (2006). Hence, subjective age scores reflect the relative deviation of a person's subjective age from his or her actual age, with negative scores indicating that a person feels younger than s/he actually is.

### 2.4 Data analyses

Statistical analyses were performed using SPSS Version 24.0. In addition to hierarchical regression analyses, we conducted relative weight analyses which allow partitioning the explained variance among multiple predictors (Tonidandel/LeBreton 2011), as opposed to the indices commonly produced by multiple regression analyses which fail to appropriately partition variance to the various predictors when they are correlated. In order to reduce the number of predictors for the regression analyses in our relatively small sample, we used only those sociodemographic and health-related variables as covariates that showed significant bivariate correlations with the activity measures.

## 3 Results

### 3.1 Preparatory analyses: correlations and predictors of the intention to be active

Chronological age, sex, education level, self-rated health complaints and body mass index were not significantly related to neither steps nor MVPA. Descriptive statistics and correlations of the main study variables are displayed in Table 1. As expected and derived from the TPB (Ajzen 1991), attitude towards PA, perceived behavioral control, and intention were positively associated with higher MVPA levels, whereas subjective norm

did not correlate with intention and PA. Regarding the AgeCog scales, older participants perceived aging more as a process of social loss and less as continuous growth (marginal significant) than younger participants, whereas physical decline was not related to chronological age. The AgeCog scales showed significant intercorrelations in the expected directions with physical decline and social loss being negatively related to continuous growth. In a second preliminary analysis, we tested the postulation of the TPB that the intention towards a behavior can be explained by attitude, subjective norm, and perceived behavioral control. A linear regression analysis confirmed this assumption: Attitude ($\beta$=.41, t=2.44, $p$<.05), subjective norm ($\beta$=.18, t=1.87, $p$=.07) and perceived behavioral control ($\beta$=.42, t=2.50, $p$<.05) were (marginally) significant predictors regarding the intention to be active with a large amount of explained variance (adjusted $R^2$=.64).

*Table 1: Correlations between the main study variables*

| Variables | *M* | *SD* | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Chronological Age | 66.20 | 3.21 | | .06 | .32$^{*}$ | -.29$^{+}$ | -.05 | -.20 | -.22 | -.12 | -.16 | -.02 | .07 |
| 2 Physical Decline[a] | 2.38 | .56 | | | .44$^{**}$ | -.53$^{***}$ | .27$^{+}$ | -.01 | .00 | -.19 | -.03 | .21 | -.05 |
| 3 Social Loss[a] | 1.48 | .48 | | | | -.56$^{***}$ | .03 | -.32$^{*}$ | -.23 | -.40$^{*}$ | -.19 | -.22 | -.12 |
| 4 Continuous Growth[a] | 3.26 | .47 | | | | | -.11 | -.16 | .19 | .02 | -.11 | -.02 | -.16 |
| 5 Subjective Age[b] | -.12 | .09 | | | | | | -.10 | .07 | .00 | .01 | .23 | .29$^{+}$ |
| 6 Attitude[c] | 5.02 | 1.02 | | | | | | | .07 | .81$^{***}$ | .82$^{***}$ | .29$^{+}$ | .37$^{*}$ |
| 7 Subjective Norm[c] | 4.85 | 1.35 | | | | | | | | .05 | .21 | .02 | .18 |
| 8 PBC[c,d] | 4.90 | 1.43 | | | | | | | | | .80$^{***}$ | .27$^{+}$ | .27$^{+}$ |
| 9 Intention[c] | 5.07 | 1.28 | | | | | | | | | | .29$^{+}$ | .34$^{*}$ |
| 10 Steps[e] | 10.30 | 2.91 | | | | | | | | | | | .46$^{**}$ |
| 11 MVPA(min)[e] | 47.73 | 30.52 | | | | | | | | | | | |

Notes. $N$=40;
[a]AgeCog-Scales; possible scores ranging from 1 to 4, higher scores indicate higher agreement
[b]Relative difference score ((FeelAge, LookAge, DoAge, InterestAge) – chronological age)/chronological age
[c]possible scores ranging from 0 to 6, higher scores indicating higher agreement
[d]PBC=Perceived behavioral control
[e]accelerometer-based data (Fitbit), average of daily steps/1000 and average of daily minutes of moderate to vigorous physical activity (MVPA)
$^{+}p < .10$; $^{*}p < .05$; $^{**}p < .01$, $^{***}p < .001$.

### 3.2 TPB and views on aging as predictors of steps and MVPA

Two hierarchical linear regression analyses were conducted to explore the second assumption of the TPB, namely the contribution of the intention to be physically active regarding the two actual activity behaviors, steps and MVPA. Additionally, we tested our

hypotheses that different operationalizations of views on aging – the AgeCog scales and subjective age – can contribute to variance explanation in light PA (steps) and MVPA, both assessed with the Fitbit and averaged over 14 consecutive days. As mentioned above, potentially relevant sociodemographic control variables were not associated with PA measures and therefore excluded due to parsimonious models. Intention was entered in the first step and the views on aging measures in the second step with the condition to only remain in the model if a marginal significance level of $p<.10$ is reached (stepwise inclusion). Table 2 shows the results of the first regression analysis explaining the average amount of steps per day, an indicator of mostly light PA, and the respective relative weights. As assumed, intention was a (marginally) significant predictor of daily steps. In the second step, two of the AgeCog scales additionally explained 14% of the variance. As expected, the dimension of social loss was negatively associated with light PA, meaning that participants who perceived aging as a process of social loss walked fewer steps over the two week assessment period. In contrast, participants who perceived aging as a process of physical decline walked more steps. The subscale of continuous growth did not reach the .10 significance level and was not included in the stepwise model which was also the case for subjective age and interaction terms. Perceived behavioral control was tested as an additional predictor as the TPB postulates a direct path on behavior and not only on intention, however, it did not contribute to variance explanation. The last column of Table 2 shows the percentage of $R^2$ explained by the respective predictors (relative weights, $RW_{\%}$).

*Table 2: Hierarchical regression analysis explaining the average of steps per day*

| Step | Predictor | $\beta_{step1}$ | $\beta_{step2}$ | $RW_{\%}$ |
|---|---|---|---|---|
| 1 | Intention | $.29^{+}$ | $.24^{+}$ | 32.4 |
| 2 | *Aging-related cognitions* | | | |
| | Physical Decline | | $.37^{*}$ | 35.5 |
| | Social Loss | | $-.34^{*}$ | 32.1 |
| $\Delta R^2$ | | $.09^{+}$ | $.14^{*}$ | |
| *adj* $R_{cum}^2$ | | .06 | .16 | |

*Notes. N*=40; Method = stepwise;

*RW%* = Relative weights, percentage of $R^2$ explained by the respective predictor;

Interaction terms were tested but did not significantly contribute to variance explanation:

$^{+}p < .10$; $^{*}p < .05$; $^{**}p < .01$.

The second hierarchical regression analysis aimed to explain the average daily amount of participants' MVPA during the two weeks. As in the previous analysis of light activity, intention was entered in the first step and explained a large amount of variance (58.7% of the total variance, Table 3). In the second step, only subjective age was a marginally significant predictor, whereas the AgeCog scales, perceived behavioral control, and possible interactions did not contribute to variance explanation. Furthermore, we tested the additional contribution of participant's self-reported past PA level in a typical week which was assessed during the initial telephone interview as an indicator of adherence to WHO recommendations. As this variable failed to reach marginal significance in the third step of the analysis, we did not include it in the final model.

*Table 3: Hierarchical regression analysis explaining the average of moderate to vigorous activity per day*

| Step | Predictor | $\beta_{step1}$ | $\beta_{step2}$ | *RW*% |
|---|---|---|---|---|
| 1 | Intention | .34* | .34* | 58.7 |
| 2 | Subjective Age[a] | | .28+ | 41.3 |
| $\Delta R^2$ | | .12* | .08+ | |
| *adj* $R_{cum}^2$ | | .09 | .16 | |

*Notes. N*=40; Method = stepwise;
[a]Relative difference score ((FeelAge, LookAge, DoAge, InterestAge) – chronological age)/chronological age
*RW%* = Relative weights, percentage of $R^2$ explained by the respective predictor;
Interaction terms were tested but did not significantly contribute to variance explanation;
+p < .10; *$p < .05$; **$p < .01$.

## 4 Discussion

Using data from a naturalistic and non-interventional setting, the results of the present research indicate that different conceptualizations of individual views on aging contribute significantly to the explanation of variance in ambulatory-assessed PA among older adults. The average of daily steps during the examination period of two weeks was explained by the intention to be active and – to an even larger amount – by aging-related cognitions, namely the two subscales physical decline and social loss. The daily amount of more intense activity, summarized as the average of MVPA, was also predicted by intention and to a marginal extent by the relative difference of participants' subjective age and their actual chronological age. In addition, the results of this study replicate and underpin the explanatory value of the TPB (Ajzen 1991) in our sample of older and

retired adults, with significant contributions of attitude and perceived behavioral control and a marginal contribution of subjective norm regarding intention, and intention in turn explaining PA levels.

### 4.1 The role of individual views on aging for PA

For steps as well as for MVPA, regression analyses revealed substantial contributions of views on aging measures, although the AgeCog scales failed to reach significance regarding the correlations with both PA measures in our small sample, and subjective age was only marginally correlated to MVPA. At a closer look, the direction of the subscale social loss was as expected, with negative views in this domain (i.e., perceptions of loneliness or being obsolete as one grows older) being associated with a smaller number of daily steps. As the main part of steps during a day is not executed due to sports activities but as part of activities of daily living or mobility, our finding may also be related to a downsized functional status or radius in those areas. The subscale of physical decline explained variance regarding steps to a comparable extent, but in the opposite direction as hypothesized: Those who perceived more losses in this domain performed more steps. This finding may be explained by (1) primary control strategies (Heckhausen/Schulz 1995), i.e., higher walking activity is performed in order to compensate for experienced age-related losses in the physical domain, or (2) anticipatory coping (Aspinwall/Taylor 1997), meaning that perceived age-related physical decline is expected to prevail and exacerbate with increasing age. From this perspective, regular walking activities may be conducted as a means to counteract one's own presumed physical decline in the future. Hence, effects that may seem paradoxical at first glance may indeed indicate self-regulatory efforts to prevent further physical loss. The subscale of continuous growth was not related to the number of steps which might be due to generally high agreement and positive views in this domain in our well-educated and cognitively and physically unimpaired sample.

For MVPA, subjective age emerged as a marginal predictor above the contribution of intention, indicating that participants who felt older compared to their chronological age engaged in more MVPA. Again, this was in contrast to our hypothesis, but might be explained in analogy with the physical decline subscale. The occurrence of those paradoxical findings for both intensities of PA (steps and MVPA) and for two conceptions of views on aging (physical decline and subjective age) could be interpreted in terms of robustness or positive replication, but more research is needed to indicate the underlying mechanisms. Furthermore, it has to be mentioned that our sample showed PA levels above average, with reference to typically low proportions of older adults meeting the WHO guideline (cf. Rütten et al. 2005: 8–9; see limitations section), and felt considerably younger than their actual age. Therefore, individuals whose subjective age was closer to (but still lower than) their actual age, were those who exercised most. In

general, views on aging were not as important for MVPA in comparison to the number of steps, which can be due to the goal-directed character of more intense PA. More precisely, it was in line with our expectations and the postulations of the TPB, that the intention is a particularly relevant predictor of planned PA such as exercise.

### 4.2 Limitations and further research

The combination of a theory-based approach with a naturalistic setting and the use of wearable activity monitors is a major strength of our study. We opted for commercially available devices and thereby accepted possible inaccuracies, with the idea of gaining knowledge on feasibility issues and implementation potential among older adults. Regarding the limitations, the main constraint of our study concerns the small sample size which was due to the intensive study design which involved wearing activity monitors to measure PA, in combination with filling out diaries each day. Moreover, our participants had a relatively high socio-economic background, reported high past PA levels and exhibited high levels of PA during the study period (with 67.5 % reaching the WHO guideline and 50% walking at least 10,000 steps on average per day). As our study was announced as research on activity monitoring, it certainly attracted older adults who were already quite physically active and open to technology-based assessment. Therefore, research is needed to substantiate our findings in larger and more heterogeneous samples. Further possible extensions include the investigation of the impact of mobile companion apps that typically come with commercially available activity monitors. In our study, the Fitbit was primarily applied as an assessment tool, which is why we used home visits to synchronize the data instead of letting participants interact with the app, which certainly would have had a motivational impact requiring quantification. Moreover, reactivity effects need to be considered, as the mere knowledge of wearing an activity monitor has been found to affect participants' activity level (cf. Clemes/Parker 2009: 676). However, as our study was non-interventional and did not aim to increase PA, interactions of reactivity and intervention-based change are not central to our research questions. Nevertheless, research on duration of reactivity to wearing activity monitors indicates that such effects seem to last for several days (but not longer than one week) and return to normal levels afterwards (cf. Clemes/Deans 2012: 1099). With that in mind, our two-week surveillance period should depict a more accurate estimate of habitual activity.

### 4.3 Conclusion and outlook

Our findings replicate the established and crucial role of intentions or behavioral goals as determinants of (activity) behavior. However, it has been stressed that intention is a necessary but not sufficient condition of behavior change (i.e., Sheeran 2002). The

intention-behavior gap (i.e. maintaining inactivity despite motivation to change) can be due to deficits in behavioral self-regulation. Those are usually targeted by planning interventions that formulate concrete action and coping plans, but our results also indicate views on aging as a possible starting point. The present study has several implications, both from a theoretical and a practical perspective: Theoretically, our findings contribute to existing knowledge on aging-related variables that are worth being taken into account alongside established social-cognitive correlates of PA. Our study may also have practical implications, for example for health professionals trying to promote older adults' engagement in and maintenance of PA. Our findings suggest that individuals who perceive aging as strongly connected to social losses are at a higher risk for inactivity. Those people might profit from group-based training interventions that provide opportunities for social contacts (Rütten et al. 2009), as the reduction of social isolation through structured programs is positively related to higher motivation to engage in PA (Cohen-Mansfield et al. 2003).

## 5 Declaration of interests and funding

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# Strategische Migrationspolitik und Migrierende als Entscheidende: Erste Ergebnisse aus einem interdisziplinären Projekt

**Johannes Lohmann, Sebastian Harnisch, Delphine Buffat**

## 1 Einleitung

Internationale Migrationsprozesse erhalten zunehmend politische Aufmerksamkeit, weil sie immer häufiger nationale Grenzen, staatliche Autorität und nationale Souveränität in Frage stellen. Neben weltweiten Finanzkrisen und transnationalen Pandemien verbreiten sie in Öffentlichkeiten den Eindruck, dass die internationale Ordnung und mit ihr auch die Erkenntnisse über deren Stabilität in den etablierten Wissenschaftsdisziplinen ins Wanken geraten ist. Daher hat sich eine wachsende Zahl von Forschenden mit der Frage beschäftigt, inwiefern Staaten Migrationsverhalten beeinflussen, ja gezielt manipulieren können, um so ihre außen- und sicherheitspolitischen Ziele effektiver zu verfolgen. Bislang ist dieser neue Forschungszweig der „Strategischen Migrationspolitik" wenig wahrgenommen worden, weil entsprechende migrationspolitische oder soziologische Untersuchung disziplinär verankert blieben.

Strategische Migrationspolitik, verstanden als bewusster staatlicher Steuerungsversuch der migrationspolitischen Entscheidungen eigener oder fremder StaatsbürgerInnen zum Zwecke weitergehender außen- und sicherheitspolitischer Ziele (vgl. Lohmann/Harnisch/Genc i. E.), ist seit spätestens den 1980er Jahren Gegenstand der politikwissenschaftlichen Forschung geworden (vgl. Loescher/Scanlan 1986; ebenso Stedman/Tanner 2003). In der vergangenen Dekade ist das Interesse indes stark angewachsen. Es sind Aussagen wie jene des türkischen Ministerpräsidenten Yildirim im November 2016, die den Eindruck mehren, dass Staaten Flucht und Migration vermehrt als Machtressource ansehen. Yildirim hatte im Zuge der Verhandlungen zwischen der Europäischen Union und der Türkei im November 2016 angekündigt, dass – sollte die Europäische Union (EU) zentrale Forderungen nicht erfüllen – man „Europa nicht weiter vor der Überflutung in Schutz nehmen [werde – Anm. d. Verf.]. Wenn Flüchtlinge durchkommen, werden sie Europa überfluten und übernehmen". Beobachter sprachen damals von einer klaren Instrumentalisierung menschlicher Schicksale und einer beispiellosen moralischen Entgleisung (Die Welt 2016). Solche „offenen Signale" („overt signals") stellen jedoch in der internationalen Politik ebenso wenig Einzelfälle dar (Morrow 1999: 77), wie es die wachsende Anzahl migrationspolitischer Vereinbarungen der Europäischen

Union, u. a. mit Staaten des subsaharischen Afrika, tun (vgl. Hampshire 2016: 571; Angenendt/Kipp 2017: 2).

Eine erste *systematische* Analyse strategischer Migrationsinstrumentalisierung leistete Kelly M. Greenhill (2010). In ihrer (provokant titulierten) Studie „Weapons of Mass Migration" identifizierte sie insgesamt 64 Fälle sogenannter „Coercive Engineered Migration" (CEM) seit 1951: die angedrohte oder tatsächliche Instrumentalisierung bestehender oder gezielt verursachter Fluchtbewegungen durch Konfliktparteien zur Durchsetzung weitergehender politischer, ökonomischer oder militärischer Ziele (vgl. Greenhill 2010: 24).

Vor dem Hintergrund der aktuellen Entwicklungen in und um Europa werden auch Greenhills jüngste Schriften aufmerksam rezipiert (vgl. Greenhill 2015; 2016a; 2016b; 2016d; 2016e). In ihrer Analyse des „EU-Turkey CEM-Facilitated Deal" (vgl. Greenhill 2016c: 327) illustriert sie anhand der türkischen Drohungen dabei erneut ihre Kernthese, wonach es vor allem autokratische und illiberale Regime sind, die ihre Forderungen gegenüber moralisch verwundbaren Demokratien durchsetzen können, indem MigrantInnen als „Waffen" eingesetzt werden. Die Autorin argumentiert, dass unterschiedliche Grade moralischer Verwundbarkeit in Demokratien dadurch entstehen, dass in Demokratien abweichende migrationspolitische Wertvorstellungen (permissiv vs. restriktiv) vorherrschen, die, wenn sie auf universalistische völkerrechtliche Verpflichtungen zur Aufnahme von Flüchtlingen treffen, erkennbare Lücken zwischen demokratischem Eigenanspruch und tatsächlicher Aufnahmebereitschaft aufdecken, sog. „Kosten der Heuchelei" (vgl. Greenhill 2010: 4).

Neben zahlreichen theoretischen und konzeptionellen Schwächen, ist ein zentrales analytisches Defizit von Greenhills Untersuchung, dass MigrantInnen als passive Opfer staatlicher Manipulation, als „true victims" (vgl. Greenhill 2010: 278), interpretiert werden. In ihrem Erklärungsmodell werden MigrantInnen nicht nur *per se* als Bedrohung (genauer Massenvernichtungswaffen) stigmatisiert, sondern Staaten wird auch die Fähigkeit unterstellt, Migrationsbewegungen zielgenau steuern zu *können*. Dies widerspricht jedoch den Befunden der früheren Migrationsforschung. Sie zeigte durch die Analyse von Migrationszahlen auf der Makroebene, dass es Staaten auch bei Aufwendung erheblicher Finanzmittel eben nicht möglich ist, größere Migrationsbewegungen über ihre Grenzen zu verhindern (vgl. Duran et al. 1999: 518; Taylor 2005: 571-572; Lutterbeck 2006: 73). Migrationssoziologische Studien ließen zudem vermuten, dass die Fluchtziele von MigrantInnen durch diverse Faktoren (u.a. die Verbesserung ökonomischer Chancen, der Versorgungs- oder persönlichen Sicherheit) beeinflusst werden und während der Flucht auch immer wieder veränderte Motivlagen auftreten (vgl. International Organisation of Migration 2016: 32).

## 2 Migrationssoziologischer Ansatz: Migrierende als Entscheidende

Ziel des vom Field-of-Focus 4 geförderten Projektes „Strategische Migrationspolitik (SMP)“ war es daher – aufbauend auf einer kritischen Lektüre der Arbeiten Greenhills – zum einen, durch eine explorative Befragung von MigrantInnen, die Wirkung von staatlichen Akteuren und deren Signale auf die Routen- und Zielentscheidungen von Migrierenden zu untersuchen. Zum anderen replizierten wir die CEM-Fälle Greenhills (64) und ergänzten diese für den Zeitraum seit 2006 (7 Fälle), um genauer zu bestimmen, ob und inwiefern überhaupt von einer aktiven Erpressung gesprochen werden kann und ob diese primär von Autokratien gegenüber Demokratien angewendet wurden.[1]

Von der ersten „Säule“ des Projektes, der Frage nach der Akteurschaft von MigrantInnen und ihrer Steuerbarkeit, versprachen wir uns durch die persönliche Begegnung mit Geflüchteten und die strukturierte fragebogengestützte Analyse ihrer Migrationsbiographien und Motivationsberichte einen ersten explorativen empirischen Eindruck von jenen Faktoren/Umständen zu erlangen, die Menschen zu einer bestimmten Fluchtroute motivieren bzw. den Zeitpunkt und das Ziel ihrer Reise bestimmen. Ist es Staaten überhaupt möglich – wie Greenhill behauptet – Migrationsbewegungen zu steuern? Wann und inwieweit lassen sich Menschen durch politische Signale von der Überquerung internationaler Grenzen abhalten? Wenn ja, welcher Art sind diese Signale? Gibt es Staaten-Dyaden, in deren Interaktion sich durch bestehende Migrationsbewegungen ein besonders starkes Potential für die Manipulation von Migration ergibt? Wie versuchen aktuelle Transitstaaten, Migrationsbewegungen zu beeinflussen und deutet diese Politik eventuell auf eine strategische Absicht hin?

Um Antworten auf diese Fragen in einer ersten Annäherung zu identifizieren, wurden in Zusammenarbeit mit dem Institut für Soziologie der Universität Heidelberg ein halbstrukturierter Interviewleitfaden bestehend aus 30 Fragen entwickelt und eine erste Befragungskampagne durchgeführt.[2] Die Interdisziplinarität des Projektteams, das starke Engagement der beteiligten studentischen Mitarbeitenden in der Durchführung, Dokumentation und Auswertung der Befragungen, aber auch die vielseitig nutzbaren erhobenen Daten, zeigen aus unserer Sicht die Qualität und das zukünftige Potential

1 Die Ergebnisse unserer Fallstudien-Replikation weisen darauf hin, dass es deutlich weniger erpresserische Migrationspolitik gibt als von Greenhill behauptet und dass diese auch nicht nur, noch nicht einmal primär, zwischen Autokratien und Demokratien erfolgt. Vielmehr handelt es sich in der Mehrheit der Fälle um verhandelte Migration, in der potentielle Zielländer freiwillig mit Herkunfts- und Transitländern die Steuerung von Migration verhandeln. Umfang, Art und Veränderung dieser Vereinbarung wird Gegenstand eines weiterführenden DM-Projektes sein.

2 Für die sehr gute Zusammenarbeit sei Prof. Dr. Kathia Serrano Velarde vom Max-Weber-Institut der Universität Heidelberg ausdrücklich gedankt!

interdisziplinärer Zusammenarbeit besonders in der Annäherung an ein vielschichtiges Phänomen wie Migration.

## 3 Durchführung der Befragungen

Um in einer kurzen Pre-Test Phase möglichst viele Interviews führen zu können, wurde ein Team aus studentischen Hilfskräften mit interdisziplinärem akademischem Hintergrund eingestellt (Politische Wissenschaften, Soziologie, Bildungswissenschaften). Durch das große Engagement dieses Teams gelang es innerhalb von 6 Wochen, insgesamt 41 Personen mit Migrationsbiographie zu interviewen (28 männlich, 13 weiblich), die zwischen 2010 und 2016 in Deutschland einreisten. Das Durchschnittsalter der Befragten lag bei 26 Jahren. Eine besondere Herausforderung war, dass die für die Unterbringung von geflüchteten Personen verantwortlichen Regierungspräsidien unter Verweis auf Sicherheitsbedenken eine Befragung in zentralen Aufnahmeeinrichtungen nicht gestatten konnten. Eine Zugangsgewährung hätte die Fallzahl der Befragungen auch in dem kurzen Zeitraum (Dezember 2017 – Mitte Januar 2018) sicher erheblich erhöhen können. Daher blieb nur der Zugang über dezentrale Anlaufstellen wie soziale Projekte, Unterstützungsvereine für MigrantInnen und Geflüchtete, Sportvereine, Förderungsprogramme der Universität Heidelberg sowie Kontakte von Privatpersonen aus dem Projektumfeld.

Bei der Formulierung des Fragensets wurde besonders darauf geachtet, die Privatsphäre der Geflüchteten zu respektieren, mögliche rechtliche Implikation zu bedenken und potentielle re-traumatisierende Fragen zu vermeiden, ohne das Erkenntnisinteresse des Projektes zu kompromittieren.[3] Die individuellen, z.T. sehr privaten Hintergründe, die zur Flucht geführt haben, sowie die Natur der berichteten Fluchterlebnisse bedürfen besonderer Einfühlsamkeit während der Gesprächsführung. Deshalb wurden die durchführenden Befrager durch die thematische Auseinandersetzung mit gezielter Gesprächsführung auf Anzeichen einer eventuellen Re-Traumatisierung vorbereitet und mit möglichen Reaktionswegen vertraut gemacht. Zu wichtigen Maßnahmen in diesem Zusammenhang gehörte die Durchführung der Interviews in einem lockeren Ambiente – Café, Mensa – ebenso wie eine längere Einleitungsphase und eine genaue Erklärung der Forschungsabsicht des Projektes für die befragten MigrantInnen sowie die ausdrückliche Betonung der Anonymisierung der erhobenen Daten.[4]

3 Siehe für den Hintergrund Posttraumatischer Belastungsstörungen und den daraus resultierenden Anforderungen an die Durchführungsweisen wissenschaftlicher Befragungsprojekte den Exkurs „Forschungsinterviews mit potentiell traumatisierten Probandinnen“ im Appenix am Ende dieses Beitrages.
4 Im Sinne der Teilhabe wurde den Befragten angeboten, die mit ihren Daten durchgeführten Forschungsergebnisse zu erhalten. Entsprechende personenbezogene Kontaktdaten wurden und werden selbstverständlich strikt getrennt von den Befragungsdaten gesichert, sodass keine Bezüge hergestellt werden können.

Manche Befragte äußerten (anfänglich) Zweifel, offen sprechen zu können, da sie entweder aufgrund repressiver Erfahrungen in ihrem Heimatland oder eines laufenden Asylverfahrens vor Ort einer Befragung durch Unbekannte skeptisch gegenüberstanden. Die Qualität der Daten muss in der späteren Verwendung unter diesem Gesichtspunkt nochmals genauer betrachtet werden.

Die Sorge, dass geflüchtete Personen aufgrund der Schwere der erlebten Ereignisse nur ungern ihre Erfahrungen teilen würden, stellte sich nach den ersten durchgeführten Interviews jedoch als meist unbegründet heraus. Im Gegenteil: die große Mehrheit der Befragten betonte ausdrücklich, sich über das Interesse an ihrer Biographie/Situation und die damit einhergehende Möglichkeit, ihre Geschichte zu erzählen, zu freuen.

Nach den ersten zehn Interviews wurde das formulierte Fragenset durch das Projektteam angepasst und generischer gestaltet, sodass die meist umfangreiche Berichterstattung der Fluchterlebnisse leichter durch leitende Fragen strukturiert werden konnte. In dieser Projektphase bildete sich auch eine durchschnittliche Dauer von circa 30 Minuten pro Interview heraus.

## 4 Vorläufige Ergebnisse der Befragung

Die hier präsentierten Ergebnisse beruhen auf der Auswertung von 41 strukturierten Interviews mit geflüchteten Personen in Deutschland. Die Teilung des Fragensets in geschlossene und offene Fragen ermöglichte, dass die 41 Befragten höchst unterschiedliche und individuelle Migrationsbiographien berichten konnten. Ebenso unterscheiden sich die Motivationen für eine Flucht bzw. eine bestimmte Migrationsroute stark. Ziel dieser Pre-Test-Phase war, Gemeinsamkeiten in den Berichten sowie wiederkehrende und/oder auffällige Muster zu erkennen. Damit erheben die Befunde keinerlei Anspruch auf Allgemeingültigkeit. Vielmehr dienen die durch die Befragungsergebnisse aufgeworfenen Fragen der genauen und zielorientierten Ausrichtung der zukünftigen Forschungsanstrengungen.

Die Auswertung der Interviews dieser explorativen Phase zeigen indes einige erstaunliche Ergebnisse: Die Befragten haben seit ihrer Ausreise aus ihrem Heimatland und vor ihrer Einreise nach Deutschland im Schnitt fünf Transitländer durchquert (Maximum: Neun). Zwischen der Ausreise aus ihrem Heimatland und der Ankunft in Deutschland lagen dabei im Durchschnitt über alle Befragten 359 Tage, mit nur geringen Unterschieden zwischen den Interviewpartnern aus afrikanischen Ländern (348 Tage) und aus Ländern des Nahen Ostens (362 Tage). Auffällig ist aber, dass viele der Befragten aus Ländern des Nahen Ostens (vor allem SyrerInnen) sehr lange Zeitspannen in direkten Nachbarländern (Türkei, Libanon, Irak) geblieben sind. Zieht man die Zeit, welche die Personen in ihrem ersten Transitland verbracht haben, von der Gesamtdauer der Flucht

ab, ergibt sich ein deutlich erkennbarer Unterschied im Fluchtverlauf: Ohne die Tage zu berechnen, welche die Befragten in ihrem ersten Transitland verbracht haben, blieb für Personen aus afrikanischen Ländern die Reisedauer zwischen ihrem Heimatland und Deutschland mit durchschnittlich 328 Tagen beinahe unverändert hoch. Für Personen aus Ländern des Nahen Ostens im Gegensatz verringerte sich die Dauer der Route auf durchschnittlich nur noch 71 Tage. Auf welche Faktoren dieser deutliche Unterschied zurückzuführen ist, bedarf einer weiteren Analyse. Personen aus dem Nahen Osten jedoch, besonders Kriegsflüchtlinge aus Syrien gaben an, sich lange in einem unmittelbaren Nachbarland aufgehalten zu haben, da sie davon ausgingen, nach einem baldigen Ende der Konfliktsituation in ihr Heimatland zurückzukehren. Erst in einem zweiten Schritt, als sich die Aussicht auf eine schnelle Rückkehr verringerte, die Lebens- und Versorgungsbedingungen in den Camps prekärer wurden und Erfahrungen von Konflikt und/oder Diskriminierung zunahmen, entschieden sie nach Europa abzuwandern.

Von den 41 Befragten bestätigte nur knapp die Hälfte der Personen (21), bereits bei der Ausreise aus ihrem Heimatland, ein klares Zielland vor Augen gehabt zu haben. Von diesen Befragten gaben jedoch wiederrum 18 an, dieses Land sei Deutschland gewesen.[5] Damit liegt der Anteil derer, die ihr zuvor festgelegtes Zielland erreicht haben unter den Befragten bei 95%. Die hohe Anzahl der nach dieser Berichterstattung „erfolgreichen“ Reisen in ein zuvor determiniertes Zielland überrascht vor dem Hintergrund der oft von äußerst volatilen äußeren Bedingungen und situativen Entscheidungen geprägten Fluchtverlaufsberichte. Gleichwohl: Es bleibt zu beachten, dass die Befragung unter geflüchteten Personen durchgeführt wurde, die Deutschland erreicht haben. Im Umkehrschluss konnten Personen, die Deutschland als Zielland geplant hatten und dies (noch) nicht erreicht haben, nicht befragt werden. Dennoch deutet der vorläufige Befund auf eine starke retrospektive Rationalisierung der eigenen Migrationsbiographie hin (vgl. Gläser/Laudel 2009: 147). Ein Befund, dessen nähere Untersuchung aus (sozial-)psychologischer Perspektive in einem größeren Sample interessante weitere Erkenntnisse über das subjektive Erfahren der eigenen Biographie (besonders disruptiver Fluchterlebnisse) verspricht.

Interessant ist in diesem Zusammenhang ein regionaler Befund: Geflüchtete aus den Gebieten Sub-Sahara Afrikas sowie Nordafrikas gaben mit einer Ausnahme an, kein spezielles Zielland im Blick gehabt zu haben. Auf ihrer Route wechselte die Fluchtmotivation oft situativ (zunächst wird die Flucht z.B. durch individuelle Verfolgung ausgelöst, später durch regionale Konflikte, Kampfsituationen oder verbreitete Armutssituationen weiter

5 Lediglich zwei Befragte gaben ein anderes Ziel an. In einem Fall war Großbritannien das Zielland, ein Überqueren des Ärmel-Kanals sei aber wiederholt gescheitert. In dem zweiten Fall berichtete die Befragte, dass Libyen ihr Zielland gewesen sei. Nach einer Schussverletzung entschied sie, weiter zu migrieren.

bedingt). Die Migrierenden „treiben“ gleichsam von Migrationskontext zu Migrationskontext, die durch die Abwesenheit oder Schwäche von Staatlichkeit geprägt werden. Dabei spielen Schleuser eine entscheidende Rolle und vermitteln die MigrantInnen von Land zu Land. Auffällig ist in diesem Zusammenhang auch die Bedeutung des Zusammenbruchs eines „stabilen“ Libyens, das unter Muammar al-Gaddafi aufgrund der relativ guten Verdienstchancen lange Zeit als attraktives Zielland für afrikanische MigrantInnen galt. Befragte mit afrikanischen Staatsbürgerschaften gaben häufig an, erst aufgrund ihrer aussichtslosen Situation in Libyen, eine Flucht über das Mittelmeer nach Europa in Erwägung gezogen zu haben.

Bei einer detaillierten Analyse der erklärten Zielländer fällt zudem auf, dass sich ein häufig vermuteter Diaspora-Effekt, bei dem früher Ankommende den in den Heimatländern gebliebenen Angehörigen von den Lebensumständen in ihrem Zielland berichten und diese so zum Nachkommen motivieren, durch unsere Daten nicht aufzeigen lässt. Bei einem Diaspora-Effekt könnten wir beobachten, dass die Zielländer für die Daheimgebliebenen aufgrund der durch die Verwandten und/oder Bekannten erhaltenen Informationen über Lebensumstände, Reiseroute etc. an Attraktivität zunähmen. Eine mit der Zeit steigende Anzahl von bestimmten Ländern als bereits bei der Ausreise anvisiertes Zielland wäre die zu konstatierende Folge. Der Anteil der Personen, die angaben, *ein* klares Ziel bzw. Deutschland als Ziel ihrer Migration geplant zu haben, nimmt über die Zeitpunkte der Ausreise aus den jeweiligen Heimatländern unter den von uns befragten Personen jedoch nicht zu. Folglich waren mehrheitlich andere Gründe auslösend für Aufbruch und Reiseverlauf, als mögliche Informationen, die von vorher ausgereisten Bekannten erhalten wurden.

Obwohl die Migrationsbiographie der Befragten aus afrikanischen Ländern stärker durch situative Migration (von Nachbarland zu Nachbarland) geprägt zu sein scheint, zeigt sich ein gemeinsames Muster: die Mehrheit der Befragten – unabhängig von ihrer regionalen Herkunft – suchte zunächst nach einer Möglichkeit, in der Heimatregion zu bleiben und sich, wenn möglich nicht weiter von ihrem Herkunftsland zu entfernen als nötig. War die Entscheidung, in ein Land der Europäischen Union zu migrieren, aber einmal getroffen, gab die Mehrheit der Befragten an, mehrere Länder (oft Griechenland, Mazedonien, Serbien, Kroatien) als reine Transitländer nur tageweise durchquert zu haben. Es bleibt genauer zu bestimmen, aufgrund welcher Faktoren sich Personen zu einem bestimmten Zeitpunkt entscheiden, die Heimatregion aufzugeben und ein weit entferntes Zielland anzustreben. Jedoch zeigen die Erfahrungsberichte der Geflüchteten, dass Diskriminierung in dem aktuellen Aufenthaltsland, die Schwierigkeiten eine Arbeit bzw. einen Studienplatz zu finden sowie regionale und nationale Konflikte wichtige Motivationen für eine schnelle Fortsetzung der Route darstellen.

Die sehr unterschiedlichen Situationen der Länder (direkt angrenzende Gaststaaten versus reine Transitstaaten) wirft jedoch unter der Perspektive der strategischen Migrationspolitik die Frage nach unterschiedlichen Instrumentalisierungspotentialen dieser Migrationsbewegungen auf. Haben, und wenn ja, wann haben die Transitstaaten ihre Rolle und ihre damit einhergehende strategische Position „erkannt"? Ist bspw. die weitgehende Schließung der Balkanroute durch national errichtete Zäune letztlich ein Produkt multilateral verhandelter Migrationskontrollen innerhalb oder mit der Europäischen Union?

Vor dem Hintergrund der in der politischen Debatte oft geforderten stärkeren Sicherung der europäischen Außengrenzen, war es zudem ein zentrales Erkenntnisinteresse der Befragung, herauszufinden, auf welche Weise Flüchtende auf staatliche Kontrollen und Durchgangsbeschränkungen reagieren. In der bisherigen Forschung haben Julia Schulze-Wessel (2017) und Lorenzo Rinelli (2016) ausführlich auf die Natur von Grenzen als soziale Konstrukte hingewiesen, die sich (aber) in einem Prozess der Auflösung befänden. Nicht nur durch Globalisierungstendenzen und damit einhergehend gesteigerte Mobilität bedingt, sondern auch durch eine Verschiebung des Grenzdiskurses vor dem Hintergrund der Exterritorialisierung von Grenzen und der Unklarheit darüber, wo die Verantwortlichkeit eines Staates (oder eines Staatenverbundes wie der EU) beginnt und wo sie endet. Zudem forderten MigrantInnen, deren Zahl im vergangenen Jahrzehnt kontinuierlich gestiegen ist, allein durch ihre Überquerung, die Bedeutung von Grenzen als Charakteristikum moderner Nationalstaaten heraus.[6] Die Vorstellung, dass Flüchtende durch das Risiko von Verhaftung, Folter oder möglicherweise Tod von ihrer Entscheidung, internationale Grenzen zu überschreiten, abgeschreckt werden könnten, sei, so Rinelli: „a symptom of a striking naïveté […] even if they are perfectly aware that the risk of dying before arriving in Europe is significantly soaring as a consequence of the securitization of the frontier" (Rinelli 2016: 76). Die zunehmende Versicherheitlichung internationaler Grenzen steht also scheinbar in einem Spannungsgefüge mit einer (weiter) steigenden Mobilität von MigrantInnen. An dieser Stelle setzt das Erkenntnisinteresse unserer Befragungen an.

Die Mehrheit (25 Personen oder 60%) der in unserer Studie befragten Personen gab indes an, mindestens einen nicht erfolgreichen Grenzübergangsversuch erlebt zu haben, häufig bedingt durch Patrouillen, polizeiliche Rückführung und seltener Motorschäden an Booten. Von diesen 25 versuchten es aber 84% (21) zu einem späteren Zeitpunkt nochmal und überquerten dann erfolgreich *dieselbe* Grenze. Lediglich vier Personen

6 Die Zahl internationaler MigrantInnen weltweit ist seit 2000 kontinuierlich gestiegen. Von 173 Millionen in 2000 über 220 Millionen in 2010 auf 258 Millionen in 2017 (UN 2017: 4). Der Anteil von Geflüchteten und/oder Vertriebenen Personen ist diesem Trend gefolgt und lag 2016 bei etwa 10% der internationalen Migration (25.9 Millionen Personen) (ibid.).

entschieden sich demgegenüber nach dem Zusammenstoß mit einer nicht überquerten Grenze dazu, in ein anderes Land einzureisen – ebenfalls mit Erfolg.

Bemerkenswert ist hier auch der Umkehrschluss, dass die anderen Befragten (17 Personen oder 40%) bei *keinem* ihrer Grenzübertritte (immerhin sechs im Durchschnitt) an der Grenzüberquerung gehindert oder im Zuge dessen kontrolliert wurden. Vielmehr berichtet die Hälfte der Befragten (21 Personen oder 50%), gar von Unterstützung bei der Grenzüberquerung durch Polizei oder Militär. Dementsprechend beantworten ebenso viele Personen, die Frage, ob Kontakt mit staatlichen Autoritäten ihre Reise erleichtert habe mit „Ja". Manche Erfahrungsberichte weisen zudem darauf hin, dass Polizei und Militär bei der Unterbringung vor Ort geholfen hätten. Die andere Hälfte der Befragten (ebenfalls 21) berichtet demgegenüber von einem direkten Zusammenhang zwischen Kontakt mit staatlichen Autoritäten und Repressalien, die von einer Hinderung bei der Weiterreise durch den Entzug von Papieren bis hin zu Gefangenschaft und Folter reichen.

## 5. Fazit

Die Ergebnisse unserer explorativen Befragung von Migrierenden einer bestimmten Migrationskohorte (2010-2015) zeigen ein breites Spektrum an unterschiedlichen Motiven und Kontexten für die Routen- und Zielentscheidungen der befragten Flüchtenden. Obwohl die (kausalen oder konstitutionsanalytischen) Verbindungen zwischen Motiven, Kontexten und Entscheidungen weitgehend intuitiv und nicht statistisch signifikant sind – die Fallzahlen sind zu klein – zeigen die Ergebnisse deutlich, dass Migrierende selten allein von staatlichen Signalen oder Entscheidungen in ihrer Routen- und Zielauswahl erfolgreich beeinflusst werden. Besonders eindrücklich wird dies durch zwei Befunde deutlich: Erstens, die überwiegende Mehrzahl der Befragten (mehr als 90%) gibt an, auf der Flucht von ihrem Heimat- ins Zielland zwar Kontakt mit Grenzbeamten oder Grenzschutzvorrichtungen gehabt zu haben, aber nur sehr wenige wurden dadurch längerfristig aufgehalten. Zweitens, die Fluchtbiographien unterscheiden sich auch unabhängig von Herkunftsländern und Konflikten untereinander deutlich, sodass die (teilweise) mehrjährigen Verweildauern in Nachbar- und Transitländern primär auf individuelle oder familiäre Rückkehrpräferenzen – also autonome Migrierenden-Entscheidungen – als auf staatliche Manipulationen zurückgeführt werden können. Unsere Ergebnisse bestätigen insofern die Befunde methodisch ähnlich gelagerter Forschungsprojekte, dass singuläre staatliche Entscheidungen und/oder Signale stets längerfristigen Bewertungen der lokalen Lebensumstände als Fluchtmotivationen untergeordnet bleiben (siehe bspw. Brücker et al. 2016: 40-41).

Unsere Ergebnisse zeigen ferner, dass Staaten und besonders das internationale Regime zum Schutz von Flüchtlingen - konstituiert durch die Genfer

Flüchtlingskonvention von 1951 - der gemeinsamen humanitären Schutzverantwortung angesichts des Trends zur „Mixed Migration“ nicht mehr gerecht werden (vgl. Carling et al. 2015: 1-2). Durch die alleinige Zurverfügungstellung legaler Fluchtmöglichkeiten für Opfer von Krieg und Vertreibung in ein direktes Nachbarland sowie fortdauernde Praktiken der Grenzsicherung, welche der Vielfältigkeit und gesteigerten Mobilität moderner Migration nicht mehr gerecht werden, wird die Mehrzahl international Flüchtender in die Arme von Schleppern und auf lebensgefährliche Routen getrieben. Unsere Gespräche mit geflüchteten Personen verdeutlichen sehr eindrücklich, dass Menschen aber bereit sind – oft mit dramatischen Konsequenzen – diese Risiken einzugehen, um den prekären Situationen in ihren politisch, sozial und wirtschaftlich instabilen Heimatregionen zu entkommen.

Schließlich können wir auch konstatieren, dass unsere Befragungen der Geflüchteten in den beteiligten Instituten auf großes Interesse seitens der Studierenden gestoßen sind. Bisher haben sich mehrere Bachelor- sowie Masterarbeiten ergeben, die es sich zur Aufgabe gemacht haben, die Daten intensiver auszuwerten und deren Aussagekraft durch ergänzende Experteninterviews weiter zu steigern. Ebenso ist nach der Durchführung der Befragung eine Interviewdatenbank (auch in Form transkribierter Interviews) entstanden, die zur weiteren Auswertung unter politikwissenschaftlichen, psychologischen und migrationssoziologischen Fragestellungen weiter genutzt werden kann.

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## Appendix

**Forschungsinterviews mit potentiell traumatisierten ProbandInnen**

Der Begriff Re-traumatisierung beschreibt psychisch-emotionale Zustände, in denen „eine erneute Erinnerung an das traumatische Erlebnis direkt zu einer erhöhten Symptombelastung führt“ (Maercker 2013: 15). Als typisches Symptom, das auf eine solche Störung hinweist, gilt das sog. „Wiedererleben“, welches dadurch gekennzeichnet ist, dass die Betroffenen kognitiv an die traumatisierenden Ereignisse gebunden bleiben. Dabei drängen sich immer wieder schmerzliche Erinnerungen auf, denen die Betroffenen nur schwer entfliehen können. Für die Interviewsituation von besonderer Bedeutung sind in diesem Zusammenhang die Begriffe „Vermeidung“ und „Hyperarousal“. Im Falle der „Vermeidung“ versuchen traumatisierte Personen nicht an die traumatischen Erlebnisse zu denken, was zu Erinnerungslücken führen kann oder Bereiche absteckt, über die die ProbandInnen nicht sprechen möchten. Dabei besteht die Gefahr, dass die befragenden ForscherInnen durch zu penetrantes Nachfragen bei Nichtantworten, sogenannte „flashbacks“ auslösen, die die ProbandInnen traumatische Erlebnisse erneut durchleben lassen (vgl. Iribarren et al. 2005: 504; American Psychiatric Association 2013). Dies kann zu „Hyperarousal“ der ProbandInnen führen. In diesem Fall äußern sich

die Traumafolgestörungen bereits als Reaktion auf kleinere emotionale Belastungen durch eine Aktivierung des autonomen Nervensystems, was zu einer starken psychischen und physischen Erregung und akuten Angstzuständen führen kann. Um derart schmerzliche, in ihrer Folge oft unkalkulierbare Erfahrungen, für Befragte in wissenschaftlichen Studien möglichst zu vermeiden, sind vertrauensbildende Maßnahmen eine unbedingte Voraussetzung für ein gelungenes Interview. Dazu gehören die Auswahl eines Ortes in dem der/die Interviewte sich wohl fühlt sowie die Gestaltung einer angenehmen Gesprächssituation. Die Interviewer sollten die Grenzen der Gesprächsbereitschaft ihrer InterviewpartnerInnen erkennen und respektieren. Detaillierungsaufforderungen auch bei knappen Antworten sollten vermieden werden. Besonders wenn deutlich wird, dass Spezifika durch den Interviewten/die Interviewte umgegangen werden. Potentiell bedrohliche Situationen wie fluchtauslösende Momente sollten schrittweise angesprochen werden, um nicht plötzlich Erinnerungen hervorzurufen, die den Befragten oder die Befragte überfluten und belasten (vgl. Loch 2008: 6). Haubl (2003) und Urquiza et al. (1997) empfehlen bei Interviews mit Zielgruppen, in denen Traumafolgestörungen vermutet werden, eine Supervision der BefragerInnen durch einen Außenstehenden/einer Außenstehenden. Mit den SupervisorInnen werden schwierige Interviews reflektiert, um eventuelle Fehler zu erkennen und zukünftig zu vermeiden.

Eine sichere und sozial stabile Umgebung ist ein wesentlicher Faktor für eine gelingende Verarbeitung traumatischer Erlebnisse (vgl. Yehuda 2002: 108). Im Falle von MigrantInnen ist besonders zu beachten, dass ein ungeklärtes Bleiberecht und die damit einhergehende Angst vor einer möglichen Abschiebung, die Belastung traumatisierender Erinnerungen verstärken kann, während eine zugesicherte Aufenthaltsgenehmigung durch die Schaffung einer stabilen Lebenssituation die Verarbeitung erleichtern kann. Aus diesem Grund sollte der Stand des Asylverfahrens der InterviewpartnerInnen beachtet werden. Eine lockere und vertrauensvolle Interviewsituation ist hier besonders wichtig, um einen Vergleich mit der mündlichen Anhörung durch Asylentscheider zu verhindern (vgl. Thielen 2009: 6-8; Rosenthal 2002: 208; Haubl 2003: 70).

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# Addressing the psychological needs of conflicting parties as a key to promoting reconciliation: The perspective of the Needs-based Model

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## 1 Introduction

Since the birth of social psychology as an independent discipline, much attention has been devoted to the study of conflict resolution (Jones 1998). The underlying assumptions of most of this research, which was inspired by economic theories (such as the game theory), were that conflicts are grounded in disputes over tangible resources such as money, land or property and that the adversaries are motivated to maximize their utilities (i.e., benefit as much as they can). Therefore, conflict resolution means reaching an agreed-upon formula, such as a peace treaty or a contract, for distributing the contested resources between the adversaries.

The concept of reconciliation—which aims to capture the emotional aspects of this process—was introduced into the scientific discourse by primatologists de Waal and van Roosmalen (1979) in their reports of friendly reunions between former chimpanzee opponents soon after aggressive confrontations. However, it took almost two more decades before mainstream social psychology began to devote greater attention to the study of reconciliation and the definition of this concept has remained somewhat elusive. Staub (2008), for example, who studied reconciliation in post-genocide Rwanda, defined it as the process of healing the relations between former adversaries. Kelman (2008) defined it as a process of identity change in which each party becomes able to remove the negation of the other's identity as a core element of its own identity. Čehajić-Clancy, Goldenberg, Gross, and Halperin (2016) defined reconciliation as the removal of the emotional barriers that block the path to harmonious relations (e.g., by reducing anger and fear, and increasing hope).

[1] This paper summarizes main research findings within the theoretical framework of the Needs-based Model of Reconciliation. It was presented as a keynote speech at the31. *Tagung des Forums Friedenspsychologie: Frieden, Macht, Freiheit*. 8. Juni 2018, Heidelberg.

The latter approach has been criticized for creating, perhaps unintentionally, the impression that "it is all in our head," while ignoring the context that gives rise to these so-called "emotional barriers" (e.g., Rouhana 2011). For example, if a group is subjected to an apartheid regime, its members are likely to be angry, but anger is the result rather than the cause of the conflict. As yet another example, if one suffers from an aggressive neighbor, one is likely to feel fearful, but again fear is the result, rather than the cause of the conflict.

Bearing this criticism in mind, we define reconciliation as the restoration of *trustworthy* relations between former adversaries who enjoy *positive social identities* and interact in *equality* (Nadler/Shnabel 2015). Admittedly, of these three components—trust, equality, and positive identities—the research presented in this paper focuses on the latter one. Yet it is critical to frame this research within the larger context. That is to present the "big picture" about what reconciliation is before "zooming in" into discussing the role of identity-restoration processes to removing the psychological barriers between adversaries.

A primary social mechanism through which such barriers can be removed is the apology forgiveness cycle. These symbolic gestures, namely, the expression of an apology or forgiveness, can dramatically transform the relations between former adversaries (Tavuchis 1991)—making them feel better even though neither apology nor forgiveness can undo what has been done. The famous kneeling of the German chancellor Willy Brandt in Warsaw, through which he expressed deep sorrow for the crimes of the Nazis, illustrates how powerful and meaningful such symbolic gestures can be. The language that people use when referring to the apology forgiveness cycle (e.g., expressions such as "you owe me an apology" or "I accepted your apology") implies that reconciliation reflects *an act of social exchange* in which the conflicting parties exchange symbolic "commodities." The Needs-based Model of reconciliation (Nadler/Shnabel 2015; Shnabel/Nadler 2015), reviewed in the next section, was developed to explain these exchange acts.

## 2 The Needs-based Model: Basic logic and empirical support

Anchored in the theoretical tradition of Social Identity Theory (Tajfel/Turner 1986), the main tenet of the Needs-based Model is that transgressions threaten specific dimensions in the identities of victims and perpetrators. In identifying the dimensions impaired among victims and perpetrators, the Needs-based Model builds on the "Big Two" theorizing (Abele/Wojciszke 2013), according to which there are two fundamental dimensions along which people judge social targets: the *agency* dimension, representing traits like "strong," "competent," and "influential" and the *moral-social* dimension, representing traits like "moral," "warm," and "trustworthy."

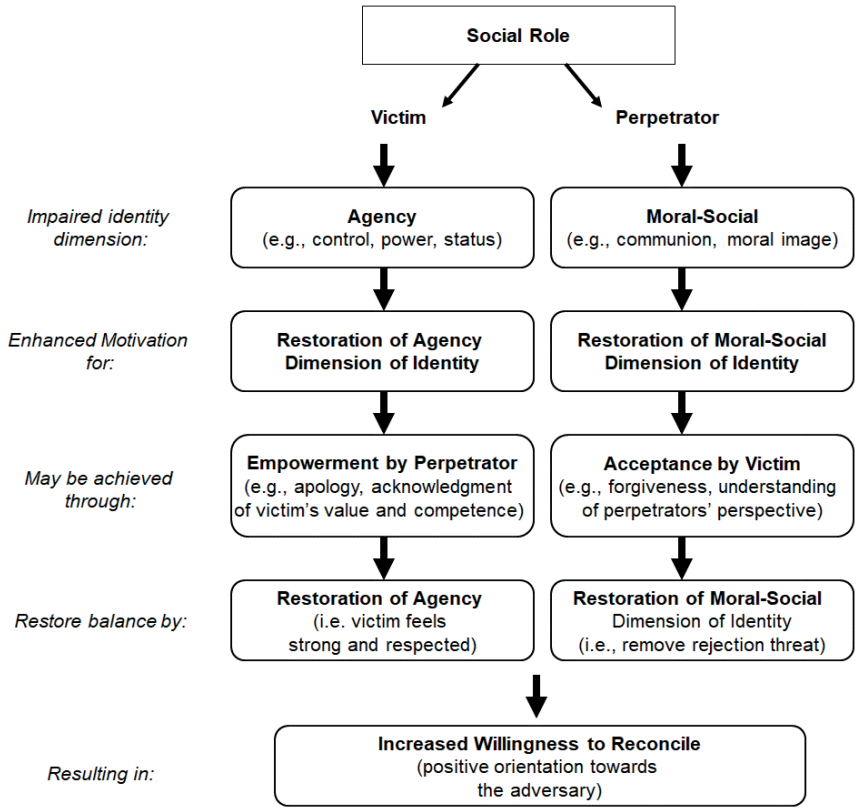
Transgressions, according to the Needs-based Model, threaten victims' and perpetrators' identities asymmetrically: victims, who feel inferior regarding their ability

to influence their outcomes, experience threat to their agentic identity. Perpetrators, by contrast, suffer from threat to their moral-social identity. While this threat is sometimes accompanied by guilt feelings, many times perpetrators view their behavior as legitimate under the circumstances (Baumeister 1997). However, regardless if they feel guilty or not, perpetrators know that social exclusion is the sanction imposed upon those who are perceived, whether rightfully or wrongfully, to breach the moral standards of their community (Tavuchis, 1991). Therefore, they are likely to experience anxiety over social exclusion. For example, Israeli citizens may fear the boycott of their country, regardless of whether or not they view its conduct to be immoral.

The experience of these threats produces different motivational states. Victims, weak and humiliated, experience the need to restore their agency and may behave vengefully in order to regain power (cf. Frijda 1994). Perpetrators experience the need to restore their moral image and gain (re)acceptance to the community from which they feel potentially excluded, and may engage in moral disengagement (e.g., minimizing the harm's severity; Bandura 1990) to downplay their culpability. However, exchange interactions through which victims and perpetrators satisfy each other's needs for *empowerment* and *acceptance* may open them for reconciliation.

In particular, perpetrators' apology constitutes an admission of owing victims a moral debt which returns control to the victims' hands. Perpetrators may also empower their victims by expressing respect for their achievements and abilities, or, in the case of victimized groups, appealing to their national pride and heritage. On the other end, victims' expressions of forgiveness and empathy towards perpetrators' perspective mitigate their moral inferiority and reassure their belongingness. Victims can also express acceptance of their perpetrators through readiness to form friendships or engage in economic and cultural cooperation. A successful exchange of empowerment and acceptance can restore the conflicting parties' positive identities through symbolically erasing the roles of "powerless victim" and "immoral perpetrator", resulting in their heightened readiness to reconcile with each other. Figure 1 summarizes the proposed process.

Figure 1: The Needs-based Model of Reconciliation




Two series of studies tested the model's hypotheses using diverse methodologies and contexts. The first series (Shnabel/Nadler 2008) focused on interpersonal transgressions. For this, we developed and used the "creativity test" experimental paradigm in which participants were randomly assigned to be either "writers" who composed marketing slogans for a list of products or "judges" who evaluated these slogans. There were two types of writer-judge dyads: control dyads and experimental dyads. In both types of dyads, writers had allegedly failed their "test" whereas judges had allegedly passed it. However, the instructions provided to participants were different in the experimental and control dyads. In the experimental dyads, judges were instructed to be strict in their evaluations. They were also told that being too nice could harm their own chances of passing the test. By the end of the session, participants (i.e., judges and writers) in the experimental dyads were told that the judges passed the test whereas writers failed it due to the harsh evaluations they received from their judges. In the control dyads, judges were instructed to be relatively lenient. Participants were later informed that the judges passed the test whereas writers failed it due to the decision of an external committee. Thus, in both the experimental and control dyads judges passed the test and writers failed it, which allowed us to control for information about success or failure. However, only in the experimental dyads judges deliberately failed their partners to improve their own chances of passing the test, hence their success was gained at the expense of the writers. As expected,

writers in the experimental dyads (i.e., victims) had the lowest sense of agency and the highest need for power (i.e., compared to writers in the control dyads and to judges in either the experimental or the control dyads). Correspondingly, judges in the experimental dyads (i.e., perpetrators) had the lowest moral image and the highest need for acceptance (i.e., compared to judges in the control dyads and to writers in the experimental or control dyads). The same pattern of results occurred in an experimental paradigm that used real-life transgressions by asking participants to recall a personal episode in which they had either hurt or been hurt by a significant other.

We next tested the model's prediction that addressing victims' and perpetrators' needs should increase their willingness to reconcile with each other. For this purpose, we again used the creativity-test experimental paradigm to randomly assign participants to the role of victim or perpetrator. Following the transgression (i.e., after participants learned that the writer failed the test due to the harsh evaluations of the judge who herself passed the test), participants received a message from their partner that expressed, depending on the experimental condition, empowerment (i.e., acknowledgement of their high competence), social acceptance (i.e., acknowledgement of their high social skills), or neither. As expected, victims' readiness to reconcile was highest in the empowerment condition (compared to the acceptance or control conditions) whereas perpetrators' readiness to reconcile was highest in the acceptance condition (compared to the empowerment or control conditions). The same pattern of results occurred in two experiments that used role-playing scenarios of transgressions.

The second series of studies (Shnabel/Nadler et al. 2009) focused on intergroup transgressions. One study exposed Jewish and German participants to two speeches, allegedly made by their outgroup's representatives at the Berlin Holocaust memorial. The speeches' main message conveyed either acceptance (e.g., "we should accept the [Jews/Germans] and remember that we are all human beings") or empowerment (e.g., "the [Germans'/Jews'] have the right to be strong and proud in their country"). As expected, Jews showed greater readiness to reconcile with Germans following empowering messages whereas Germans showed greater readiness to reconcile following accepting messages.

Of course, the different pattern of responses to messages obtained among Jews and Germans could be attributed to cultural differences between the two groups rather than to their different social roles when referring to the Second World War. To rule out this alternative explanation, we replicated this experiment in the context of relations between Israeli Jews and Israeli Arabs when referring to the *Kefar Kasem* killings. In this event, which took place in October of 1956, the Jewish-Israeli border patrol killed 43 unarmed Arab civilians for violating a curfew that had recently been imposed. Using the same experimental procedure as in the German-Jewish study, we exposed Israeli Arabs and Jews to speeches conveying messages of empowerment or acceptance. The speeches were ostensibly made by representatives of their outgroup on the 50th

anniversary of the killings. Consistent with logic of the Needs-based Model, while Arabs were more willing to reconcile following a message of empowerment than of acceptance from the Jews, Jews were more willing to reconcile following a message of acceptance than of empowerment from the Arabs. Taken together, the two sets of studies provided empirical support to the Needs-based Model in contexts of both interpersonal and intergroup transgressions.

## 3 When both parties hurt each other: Extending the model to "dual" contexts

In its original formulation, the Needs-based Model referred to situations in which the roles of "victims" and "perpetrators" were consensual, clear-cut and mutually exclusive. However, in many (if not most) conflicts both parties transgress against each other and serve as victims and perpetrators simultaneously. In one experiment that explored this "duality" (SimanTov-Nachlieli/Shnabel 2014) participants worked in dyads and had to allocate valuable resources (e.g., monetary prizes or credit points). Participants then received feedback on the allocation task which constituted the experimental manipulation: In the control condition, participants were informed that both their own and their partner's allocations were fair; in the victim condition—that their partner's allocation was unfair; in the perpetrator condition—that their allocation was unfair; and in the dual condition—that both their and their partner's allocations were unfair. In terms of psychological needs, duals showed heightened needs for *both* agency (e.g., similar to victims, they expressed a greater wish to have more influence over the study's results) *and* positive moral image (e.g., similar to perpetrators, they expressed a greater wish to explain to their partner that they tried to behave in a fair manner).

In terms of behavior, however, like victims, duals' heightened need for agency translated into vengefulness. For example, when given an opportunity to do so, both victims and duals (but not perpetrators) denied resources from their partners. Unlike perpetrators, duals' heightened need for positive moral image failed to translate into pro-sociality. For example, when given an opportunity to do so, as opposed to perpetrators, both victims and duals were reluctant of donating resources to their partners. Corresponding patterns were obtained in intergroup contexts of dual conflicts in which group members often engage in "competitive victimhood" (i.e., disputes over who the "real" victim of the conflict is; Noor/Shnabel et al. 2012). Taken together, our findings point to the precedence of agency-related over morality-related needs in determining duals' behavior; a phenomenon that we called *the primacy of agency*.

The notion of primacy of agency is consistent with Mazziotta, Feuchte, Gausel and Nadler's (2014) finding that the experience of victimization is more psychologically profound than the experience of perpetration. In a study among conflicting groups in

Liberia, which experienced two civil wars during the years 1989 and 2003, Mazziotta et al. (2014) have asked participants to write about an episode in which either their in-group had victimized people from an adversarial group or another group had victimized their own. In line with previous findings of group members' biased historical memory (Sahdra/Ross 2007), participants indicated that they found it easier to recall episodes of in-group victimhood than in-group perpetration. Moreover, half of those asked to describe an event in which their group had perpetrated violence against an outgroup also described how their group had been victimized by this outgroup. None of those asked to describe an event of victimization described how the in-group had perpetrated violence against the outgroup. Finally, the descriptions in the victim condition were longer and more detailed than those in the perpetrator condition.

The finding that the experience of victimization exerts more influence on behavior than the experience of perpetration, leading to the *primacy of agency* observed in our studies, implies a somewhat pessimistic outlook on the reconciliation potential of individuals or groups involved in dual conflicts. Leaving some room for optimism, we theorized, based on the logic of the Needs-based Model, that addressing duals' pressing need for agency may reduce vengeful, anti-social tendencies and foster pro-social tendencies instead.

Trying to identify a strategy to restore duals' agentic identity, we turned to research on self-affirmation theory (Steele 1988) which has later been extended to the group level. This research has demonstrated that the negative effects of various social identity threats on individuals' or group members' attributions, achievements, motivations, attitudes, and behaviors can be alleviated by affirming positive aspects of their self or in-group identity. For example, smokers' defensive response to threatening health information (i.e., refusal to accept the validity of a scientific article indicating that smoking harms health) was eliminated when they had an opportunity to affirm their selves through writing about the values important to them (Crocker/Niiya et al. 2008). Similarly, group-serving biases among basketball fans (attributing the outcome of the game to their team's performance when their team won but not when it lost) were eliminated when they had an opportunity to affirm their in-group's identity through writing about the values important to their group (Sherman/Kinias et al. 2007).

Whereas earlier research on self-affirmation suggested that threats in one domain can be addressed through affirmation of another unrelated domain (Steele 1988), more recent research (e.g., Knowles/Lucas et al. 2010) has revealed that group-affirmation is effective only to the extent that there is a "match" between the type of threat and the content of the affirmation. Applying this insight to contexts of dual conflicts, we theorized that to effectively reduce anti-social tendencies in such conflicts, self or group affirmations must target the in-group's agency. Two series of studies tested this theorizing, examining whether agency-affirmation—reminding and reassuring individuals or group members of their (personal or collective) competence and self-

determination—would satisfy their pressing need for agency and thus reduce anti-social and increase pro-social tendencies towards the other party to the conflict.

The first set of studies (SimanTov-Nachlieli/Shnabel et al. 2017) examined interpersonal dual conflicts. In one experiment, for example, participants were instructed to think about a colleague with whom they had a conflict in which they had both hurt each other. After reporting their level of commitment to their relationship with this colleague, participants were randomly assigned to one of three experimental conditions: In the agency-affirmation condition, participants had to think and write about a situation in their lives (unrelated to the conflict that they had just described) in which they felt assertive, self-determined, influential, competent, resilient or having inner strength. In the morality-affirmation condition, participants had to think and write about a situation in their lives in which they were fair, moral, thoughtful or considerate towards other people. In the control condition, participants had to think and write about their morning routine. Then, participants were reminded of the conflict about which they had written in the first part of the experiment and asked to report their conciliatory tendencies towards their colleague.

Participants in the agency-affirmation condition, but not in the morality-affirmation condition, reported more conciliatory tendencies towards their colleague—especially in low-commitment relationships (in which people are most concerned about their own needs, rather than about the needs of their partner or the relationship with him or her; Rusbult/Martz et al. 1998). This pattern of interaction, in which agency affirmation promotes conciliatory tendencies in dual conflicts characterized by low commitment relationships, was replicated in additional contexts; e.g., when the dual conflict was induced in the lab, commitment level was experimentally manipulated (by leading participants to believe they would either or not have a subsequent face-to-face encounter with their partner) and conciliatory tendencies were measured by observing participants' actual behavior (rather than self-reported).

The second set of studies (SimanTov-Nachlieli/Shnabel et al. 2018) examined dual conflicts between groups. To illustrate, in one experiment Swiss participants showed more pro-social tendencies towards the EU, with whom their country was in conflict following the 2014 referendum to restrict immigration to Switzerland if they completed a short exercise in which they wrote about Switzerland being advanced and successful (an agency-affirmation manipulation). Similar patterns were observed in other contexts of conflict. For example, among Israeli leftists and rightists referring to the conflict between their political camps (in which they both feel victimized), reading a short text about the influence of their political camp in shaping the state's character (again, an agency-affirmation manipulation) led to greater willingness to relinquish some power for the sake of being moral towards the other camp. This, in turn, led to more pro-social behavior (e.g., in an investment game). Notably, affirming the morality (rather than agency) of their political camp failed to promote Israeli leftists' and rightists'

conciliatory tendencies—suggesting that not every positive affirmation "can do the trick." Rather, the affirmation has to be focused on the identity dimension about which dual conflicting parties care the most, namely, their agency.

## 4 When one party is stronger than the other: Extending the model to contexts of structural inequality

Intergroup conflict manifests not only in direct violence (e.g., war or terror attacks) but also in structural disparity, namely, unequal social arrangements that privilege some groups while depriving others. According to the stereotype content model (Fiske/Cuddy et al. 2007), this inequality translates into differential group stereotypes which threaten different dimensions of advantaged and disadvantaged groups' identities: disadvantaged groups are often perceived as warm but incompetent and advantaged groups as competent but cold and immoral. The finding that within interracial (but not intra-racial) interactions, African-Americans were motivated to gain respect, whereas Caucasian-Americans were motivated to be liked (Bergsieker/Shelton et al. 2010), suggests that these differential stereotypes may lead to the experience of divergent needs among members of disadvantaged and advantaged groups—in line with the logic of the Needs-based Model.

Subsequent research (Siem/von Oetingen et al. 2013) demonstrated that the needs of advantaged- and disadvantaged-group members correspond to those of perpetrators and victims only when group inequality is perceived as illegitimate. For example, in one experiment, students of clinical psychology were randomly assigned to either the high-status or the low-status condition by comparing themselves to either social workers (an outgroup with a lower professional status) or psychiatrists (an outgroup with a higher professional status). They were then assigned to one of two experimental conditions: In the legitimacy condition, participants learned that intergroup status differences stemmed from different specialization requirements, whereas in the illegitimacy condition participants learned that clinical psychologists and outgroup members perform similar work in mental health institutions.

As predicted, Siem et al. (2013) found that in the legitimacy condition there were no differences between high- and low-status members in terms of needs for moral-social acceptance and agency. However, in the illegitimacy condition, high-status group members' need for acceptance was higher than that of low-status group members, whereas the opposite pattern emerged for the need for agency. A consistent pattern was observed in a correlational study which found that power and morality needs among advantaged and disadvantaged group members' (e.g., cis-heterosexual and sexual minorities) were moderated by their level of system justification, namely, the extent to which they perceived the existing social arrangements as fair and legitimate (Hässler/Shnabel et al. 2018).

Additional studies (Shnabel/Ullrich et al. 2013) found that messages from the outgroup that reassured the advantaged group's morality and the disadvantaged group's competence not only improved their attitudes toward each other but also increased their readiness to collectively act for equality (through demonstrations, petitions, etc.). These findings highlight the critical role of identity restoration processes in promoting structural equality. The traditional view is that advantaged groups cannot be the drivers of social change, because they are primarily motivated to maintain their privilege. Yet Shnabel et al.'s (2013) findings show that once their threatened moral image is reassured, advantaged-group members may be readier to exhibit solidarity with the disadvantaged group. These findings further suggest that restoring disadvantaged group members' sense of agency can prevent them from passively accepting their lower status.

Practical interventions to promote positive intergroup relations through contact across group boundaries which often focus on the communion dimension (e.g., fostering cross-group friendship), should, therefore, also address power-related issues and directly challenge the stereotypical perception of disadvantaged groups as incompetent (for a similar recommendation, see Saguy/Dovidio et al. 2008).

## 5 Conclusion and Future Directions

The scientific study of reconciliation, both within and outside social psychology, is relatively young. Additional research can, therefore, be highly valuable. Two directions of research may be especially intriguing. First, while the research presented in this paper tells us what kinds of messages should be ideally exchanged between members of conflicting groups, it is still unknown under what conditions such an exchange is most likely to occur. Therefore, future research should identify the factors that increase the chances that the parties involved in a conflict would choose to engage in exchanging the emotional "commodities" that they need from each other.

A first step in this direction was done by Ditlmann, Purdie-Vaughns, Dovidio, and Naft's (2017) research which pointed to the critical role of the implicit power motive, namely, the motivation and ability to influence others (Schultheiss/Brunstein 2002). Specifically, Ditlmann et al. (2017) found that when discussing the history of slavery in the U.S., Black participants who were high (rather than low) in implicit power motive used more affiliative communication and immediacy behaviors towards their White counterparts, which in turn increased Whites' engagement with the topic of past injustices and readiness to act for racial equality. Put differently, members of the historical victim (and presently disadvantaged) group with a high implicit power motive used communication strategies that satisfied the heightened acceptance needs of members of a historical perpetrator (and presently advantaged) group. These strategies elicited responses among members of the perpetrator group with the potential to satisfy

the victim group members' need for empowerment. Hence, interactions that include high implicit power individuals are more likely to result in needs satisfaction for both parties.

A second direction for future research would be to examine whether applying the insights of the Needs-based Model can enhance the effectiveness of restorative justice procedures. Restorative justice is an approach to justice that tries to foster a dialogue between all stakeholders (the victims, perpetrators, and the community), and is often contrasted to the traditional punitive approach which focuses on punishing the perpetrator as a means to restore justice (Boyes-Watson 2008). In restorative justice procedures, which are sometimes used in the criminal system and in other systems such as schools, victims take an active role (so their voice is being heard), while offenders are encouraged to take responsibility for their actions and to repair the harm they have caused (e.g., by apologizing or by offering compensation or community service). It may be interesting to examine whether victims' satisfaction of the outcomes and perpetrators' avoidance of repeating the offense, is influenced by the extent to which they feel empowered and morally accepted (respectively) through the use of these procedures.

In conclusion, in line with the understanding that "what goes on between people cannot be separated from what is going on within people" (Gopin 2004, p. 14), the main insight provided by research on the Needs-based Model is that restoring the positive identities of conflicting parties can prepare their minds and hearts to reconciliation. Once their threatened identities are restored, conflicting parties show greater generosity towards each other and may even give up some power for the sake of moral considerations. While the scientific study of reconciliation is still in its early stages, I hope that the joint effort of myself, as well as other researchers of this topic, will build a large body of knowledge that allows a better understanding of reconciliation-related processes. Hopefully, this knowledge will be useful not only for researchers but also to practitioners who engage in conflict reduction.

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# Abstracts

## Evangelia Tiniakou, Tim Hirschler, Maaike Endedijk, Anoush Margaryan

**Abstract**

Self-regulated learning has become a prominent form of learning, both in the workplace and in educational institutions. Self-regulated learners are able to strategically plan, monitor, evaluate and modify their learning practices and goals. Previous studies revealed school factors which can affect students' ability to self-regulate their learning. However, more research is needed in order to identify out-of-school factors which can contribute to someone becoming a highly self-regulated learner as an adult. One such key factor is parenting style, in particular, parental involvement in and encouragement of children's learning. The purpose of this exploratory study is to investigate patterns of parenting styles in childhood and adolescence of highly self-regulated professionals that might have had an impact on the development of these professionals' self-regulatory skills. In order to identify such shared factors, their life histories were explored through in-depth biographical interviews (n=39). Parental involvement and especially maternal involvement, parental positive attitudes towards learning and autonomy support and freedom were found to be recurring common experiences in the majority of life histories of these highly self-regulated learners. Based on our findings, we hypothesise a set of parental style factors that may contribute to the development of self-regulatory learning skills, to be investigated in future research: parental support and encouragement of (i) personal interests, family activities and structured routines; (ii) education and early literacy development; and (iii) independence and freedom of choice.

**Keywords**

Self-regulated learning; adult learning; parenting styles; biographical interview; learning in childhood

**Laura I. Schmidt, Martina Gabrian, Carl-Philipp Jansen, Hans-Werner Wahl and Monika Sieverding**

**Abstract**

**Objective:** Despite the well-known beneficial effects of physical activity (PA), many individuals lead a sedentary lifestyle in older age. This study aimed to examine the self-regulative role of individual views on aging for planning and implementing PA goals among retired, healthy older adults. We hypothesized that aging-related cognitions (regarding physical decline, social loss, and continuous growth), as well as subjective age, are relevant predictors of PA. We furthermore explored their predictive value over and above the intention to be active, an established predictor derived from the "Theory of Planned Behavior". **Method:** N=40 retired participants aged 60 to 74 years wore commercially available activity monitors (Fitbit Charge HR) that tracked daily steps and moderate to vigorous PA on 14 consecutive days. Social-cognitive variables, views on aging and health complaints were assessed during home visits. Associations between variables were analyzed using hierarchical regression analyses. **Results:** Even after accounting for the intention to be active, views on aging explained additional variance of PA, indicating that participants who viewed aging as a process of social loss walked fewer steps per day. Against expectations, individuals who regarded aging as an inevitable process of physical decline and who felt older than their chronological age showed higher PA levels. **Conclusion:** Our findings underline that beliefs about the aging process affect the ability to self-regulate actions related to PA in older adults. We even found evidence for possible paradoxical effects. Further research on long-term effects and underlying mechanisms that relate views on aging to PA is needed.

**Keywords**

Physical activity; older adults; aging-related cognitions; Theory of Planned Behavior; ambulatory activity tracking

**Johannes Lohmann, Sebastian Harnisch, Delphine Buffat**

**Abstract**

In diesem Beitrag präsentieren wir die Forschungsfragen, methodischen Vorgehensweisen sowie erste Ergebnisse einer Befragung von Geflüchteten des Projektes „Strategische Migrationspolitik“. Ziel der Befragung war es, die Position von MigrantInnen als Entscheidende auf der Fluchtroute zu analysieren und Geflüchtete als handelnde Subjekte (wieder) in das Zentrum der vergleichenden Migrationsforschung zu rücken. Unsere ersten (vorläufigen) Ergebnisse zeigen, dass die Wirkung staatlicher Signale zur Migrationssteuerung und -manipulation durch ebenso deterministische wie variable Eigenmotivationen der Migrierenden aufgehoben wird. Durch die interdisziplinär gestaltete Forschungsmethode hat das Projekt nicht nur die immensen Potentiale der Zusammenarbeit unter den beteiligten Instituten (erneut) gezeigt; es sind ebenso direkte Folgeprojekte zur weiteren Auswertung und ergänzenden Erhebung entstanden.

**Keywords**

Strategische Migrationspolitik; Coercive Engineered Migration; Interviewauswertung

**Nurit Shnabel**

**Abstract**

Reconciliation processes have attracted much scientific interest over the last two decades. In the present paper, after discussing the difficulty in defining the elusive concept of reconciliation, I will present the theoretical perspective of the Needs-based Model of reconciliation. According to this model, transgressions threaten the identities of victims and perpetrators in an asymmetrical manner. Victims experience threat to their sense of agency, whereas perpetrators experience threat to their moral image. The restoration of victims' and perpetrators' positive identities (e.g., through the exchange of empowering and accepting messages, or through identity-affirmation interventions) may increase their willingness to reconcile with each other. I will present empirical evidence supporting the Needs-based Model's hypotheses in various contexts including interpersonal transgressions, direct intergroup violence, structural inequality, and duality of social roles (i.e., when both parties transgress against each other and engage in "competitive victimhood"). Finally, I will discuss the practical implications of the model and point to future research avenues.

**Keywords**

Reconciliation; social identity, empowerment, acceptance, the needs-based model

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