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Driven by the future

Future time perspective across life domains and cultures

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CHAPTER 5

General discussion

The function of an individual's future orientation becomes analogical to a searchlight which helps you see events ahead, highlights objectives not yet in the present; the stronger the light the farther you see- the more objectives you discover - the brighter and clearer they appear - the nearer and more real you perceive them - and the more able you are to structure and plan future actions.

- Torgrim Gjesme, 1983



I started this dissertation by arguing that contemplating about the future is a premise of motivation in everyday life of humans. In this dissertation I have attempted to unearth the rich, yet fragmented history of evidence about the FTP construct as a motivator for attitudes and behaviors in different life domains that are important in life, that is, in education, work, and health. Specifically, I aimed to unfold three central inquiries relevant to the FTP field that needed to be solved. First, I investigated whether or not FTP can be considered as a robust driver of human motivation and behaviors within and across different life domains. Second, I integrated RF theory with FTP theory to see whether the regulatory foci (promotion and prevention) of parents and adolescents are situational and personal determinants of adolescents' FTP on school and professional career. Third, I investigated the motivational relevance of adolescents' and parents' RF and FTP for educational and career outcomes of adolescents from countries that greatly differ on cultural values and looked for the cross-cultural generalizability of the findings.

Below I will discuss the core findings of this dissertation in relation to these three inquiries, and explicate the theoretical and practical relevance of the findings, together with their strengths and limitations, and provide directions for future research.

SUMMARY OF THE MAIN FINDINGS

FTP as a driver for educational, work, and health outcomes

In chapter 2, I reported about a meta-analysis including a total of 77 independent studies across the domains of education, work, and health. This meta-analysis revealed the first (as far as we know) proof that FTP has significant and positive relationships with outcomes from educational, work, and health domains. These results confirmed that FTP is a powerful driver for different attitudes and behaviors within and across life domains. Specifically, by showing that the magnitude of the relationships were positive and small-to-medium across the life domains, we established that the strength of FTP–outcome relationships are comparable across different life domains.

Moreover, by revealing a high variability in the results of FTP studies within each life domain (more heterogeneity in their effect sizes), the meta-analysis also confirmed that the findings of FTP studies are influenced by the FTP measure, outcome type (e.g., attitudes, behaviors), and study characteristics (age, gender, and year of publication). Regarding the FTP measure, I developed a conceptual framework to review different FTP measures and grouped them into four FTP measure types: (1) cognition (focus on the future), (2) the

combination of cognition and behavioral intention (thoughts, perceptions, and efforts related to the future), (3) the combination of cognition and affect (cognitions and feelings about the future), and (4) a mixture of cognition, behavioral intention, and affect. As affect and behavioral intention are essential in goal-directed behavior (e.g., Nuttin, 1964, Trommsdorff, 1983, Seginer, 2009), I predicted that the relationship between FTP and outcomes would be strongest when the FTP measure includes a mixture of cognition, behavioral intention, and affect. The findings indeed showed that FTP measures that embrace cognition, feelings, and behavioral intentions, were more strongly related to educational, work, and health outcomes as compared to FTP measures that include cognition and/or affect. This result implies that the way in which individuals contemplate about the more distant future regarding their education, work, and health matters for their motivation. Also, based on the principle of compatibility (Ajzen, 1988), I expected that domain-specific FTP measures (i.e., measures that refer to a specific life domain) versus domain-general measures (i.e., measures without specifying the life domain) would show stronger relationships with outcomes. I indeed found that domain-specific FTP measures exerted a stronger moderating effect on the relationships between FTP and outcomes, but this was only evident in the educational domain. This result corroborates previous research that showed that more specific expectations, intentions, and goals are better predictors than less specific expectations, intentions, and goals (e.g., Bandura, 1977; Locke, 1990), and suggests that attitudes about individual's educational future (e.g., which university to attend) promote educational-related outcomes (e.g., doing homework) more than attitudes about one's future in general.

As the concept of FTP has been related to a broad variety of outcomes within and across life domains (e.g., grade-point-average, job satisfaction, body-mass index), I organized these diverse outcomes according to the Theory of Planned Behavior (Ajzen, 1980), and distinguished among: attitudes towards behavior, behavioral intention, perceived behavioral control, and behavior (unverifiable or self-reported and verifiable). In line with previous research (e.g., Sheeran, 2002), I found substantial proof that FTP was more strongly related to educational, work, and health attitudes and to educational and health behavioral intentions than to behaviors in these life domains. Yet, this was only true when verifiable behaviors were taken into account (e.g., students' GPA, physical activity assessed with an accelerometer). When behaviors were assessed with self-reports (e.g., self-reported GPA and physical exercise), FTP showed medium-to-large associations with educational and work behaviors and small-to-medium associations with health behaviors. Also, FTP was significantly related to perceived behavioral control with medium-to-large associations in education and work

(e.g., control beliefs about learning and work capability beliefs), and small-to-medium associations in the context of health (e.g., self-efficacy diet). These results suggest that individuals engage in reflecting about their future to the extent that they perceive their actions to be under their own control. For example, a person who reflects about the future might feel confident about his or her ability to perform homework, work, or a physical exercise.

By testing culture as a moderator I managed to obtain novel and intriguing results regarding the FTP effects in countries that vary in cultural values (Hofstede, 2011). Specifically, I found that the cultural dimensions of individualism/collectivism, long-term/short-term orientation, uncertainty-avoidance, and indulgence/restraint moderated the relationships between FTP and outcomes. For example, the relationships between FTP and work and health outcomes were stronger for countries that prioritize personal over shared achievements and goals (i.e., individualistic countries). Moreover, cultures that are relatively more uncomfortable with uncertainty and novel situations (i.e., uncertainty avoidance cultures), displayed a stronger association between FTP and educational outcomes.

Finally, the meta-analytic results revealed gender and age differences. Whereas the relationships between FTP and health outcomes were stronger for females, the relationships between FTP and outcomes in the educational and work domains were stronger for males. In addition, the meta-analysis showed an age effect in the work domain: older individuals reflect less on their work future than younger ones.

In sum, these results provide the first, to my knowledge, meta-analytical support for FTP as a motivator within and across life domains and highlight that FTP measure, cultural context, and study characteristics influence the magnitude of the FTP-outcome relationships.

RF as a determinant of adolescents' FTP

Chapter 3 of this dissertation filled a gap in extant FTP research, that is, it explored individual and situational determinants of adolescents' FTP. Specifically, based on the results of chapter 2 showing the importance of using comprehensive and domain specific FTP measures, I assessed adolescents' domain-specific FTP regarding their school and professional career. Because previous studies suggested that self-regulatory variables play an important role in the formation of adolescents' FTP on school and career (e.g., Seginer et al., 2004) and that RF can influence an individual's future temporal look (Pennington & Roese, 2003), I explored RF as a determinant of FTP in a sample of Dutch adolescents. In addition, as individual differences in RF are formed during infancy and through different parent-child interactions (Higgins, 1997), I also explored the role of parents' RF in the formation of

adolescents' RF and FTP. I argued that the regulatory foci of parents would affect the regulatory foci of their children, which would influence children's FTP on school and professional career. Yet, based on previous research (e.g., Higgins, Roney, Crowe, & Hymes, 1994; Lockwood et al., 2002), I anticipated that promotion and prevention foci would differently relate to adolescents' FTP. Because a measure of parents' RF did not exist, I developed the perceived parent RF scale using the validated scale by Lockwood et al. (2002) and tested its psychometric properties.

The results showed that adolescents' RF was significantly related to their FTP on school and professional career. Specifically, whereas adolescents' promotion focus was positively related to their FTP, adolescents' prevention focus was negatively related to their FTP. These results imply that adolescents who strive for attaining positive outcomes rather than preventing negative outcomes contemplate more on their future. Furthermore, we showed that adolescents' perceptions of their parents' RF was significantly related to their own RF. This finding supports RF theory (Higgins, 1997; Lockwood et al., 2002) that postulates that individuals' RF is formed through parent (caretaker) and child interactions and corroborates research by Lockwood et al. (2002) demonstrating that students are motivated by role models who encourage strategies that fit their regulatory foci. Also, this finding suggests that parents may indeed transmit their RF to their children. Additionally, whereas perceived parent promotion RF was both directly and indirectly (via adolescents' promotion RF) related to adolescent FTP, perceived parent prevention RF was only indirectly related to adolescent FTP through adolescent prevention RF. Hence, particularly adolescents' perceptions of parent promotion RF may impact their FTP on school and professional career. Notably, these results remained after accounting for adolescents' conscientiousness (i.e., vigilance, dutifulness and achievement orientation).

All in all, the results of chapter 3 indicate that the regulatory foci of both parents and adolescents play an important role in the formation of adolescents' FTP on school and professional career. In particular, adolescents benefit from parents who encourage them to take on challenges in their future goal striving.

Cross-cultural comparison of adolescents' RF, FTP and educational and career outcomes

Chapter 4 builds upon the findings from chapters 2 and 3 in two ways. First, I replicated the model in chapter 3 that integrated RF and FTP theories with a sample of adolescents from countries that differ on cultural values. Second, I extended this model by

focusing on educational and career outcomes that yielded strong and positive FTP-outcome relationships across different countries as evidenced in the meta-analysis presented in chapter 2. I surveyed a total of 1520 adolescents over three points in time from one Western-European country (the Netherlands) and two Eastern European countries (Serbia, and Croatia) that highly differ on Hofstede's cultural dimensions (see Figure 2 in chapter 4), socio-economic circumstances (e.g., human development and corruption perceptions index), and history. Prior to testing the cross-cultural model, I explored whether the measures (i.e., investment in learning rated by adolescents and their teachers, investment in homework, school achievement, and career planning) were conceptually equivalent across these three countries.

Results confirmed that the measures were structurally invariant across the Netherlands, Serbia, and Croatia, and allowed the testing of cross-cultural comparisons. The hypothesized model appeared to be cross-culturally valid in the three countries, although FTP related differently to objective outcome measures across the samples. This finding suggests that teachers' assessments and students' GPA have different meanings across the three countries. Apparently, teachers in these countries use different educational standards when grading their students. Nevertheless, results showed that the hypothesized research model concerning the relationships between RF, FTP and outcomes holds across countries with vastly different cultural, socio-economic, and historical backgrounds. Specifically, across the three countries, adolescents' promotion focus was positively related and their prevention focus was negatively related to FTP on school and professional career, which correspond with the results in chapter 3 and previous literature (Pennington, & Roese, 2003; Zacher & Lange, 2011). Also, adolescents' perceptions of their parents' RF were significantly related to FTP on school and professional career via their own RF, and this relationship was consistent among the Dutch, Serbian, and Croatian adolescents. Moreover, a direct relationship between perceived parent promotion focus and adolescents' FTP on school and professional career was significant for the Dutch and Serbian adolescents, but not for the Croatian adolescents. This result suggests that the extent to which parents' cognitions convey to the cognitions of their children may be embedded in the cultural context and how cultures view the role of parents. Finally, as expected, adolescents' FTP on school and professional career related positively to their investment in learning and homework, and career planning. These results show that the relationships between adolescents' FTP and educational and career outcomes are consistent across culturally different settings.

The study described in chapter 4 was the first, to my knowledge, to compare FTP and RF of adolescents' in the Netherlands, Serbia, and Croatia. It showed intriguing differences in

both FTP on school and professional career and RF strategies among the three countries. First, I expected that adolescents from highly individualistic countries would score higher on FTP (Shirai & Beresneviene, 2005), but this expectation was not supported. Surprisingly, adolescents in the Netherlands scored lower on FTP than adolescents in Serbia and Croatia, and Croatian adolescents scored lower on FTP than their fellows in Serbia. This difference among the two collectivistic countries might be explained by the entering of Croatia to the European Union (EU) four years ago, which has brought positive economic changes and better opportunities for education and employment in Croatia. I also speculated that the stronger motivational orientation of Serbian and Croatian adolescents (i.e., higher promotion and prevention foci than their fellows in the Netherlands) is reflected in the current “brain drain” of young Serbian and Croatian adults who are seeking a better future outside their country (Balkan Insight, 2013; Deutsche Welle, 2016). Young people who are raised in suboptimal political and economic conditions may be more strongly motivated to strive for a better future than their peers who are raised in better circumstances. Yet, while adolescents in Serbia and Croatia did not differ in their level of prevention focus, Serbian adolescents were more strongly promotion focused than Croatian adolescents.

In sum, the results of chapter 4 expand our knowledge about the motivational role of RF and FTP for educational and career outcomes across different cultural contexts. In addition, they reveal interesting differences in motivational orientations among adolescents from different cultural contexts.

THEORETICAL IMPLICATIONS

Taking into account the results of the meta-analytical, cross-sectional, prospective and cross-cultural studies presented in chapters 2 to 4, the present dissertation makes several noteworthy contributions to: (1) FTP theory and research, (2) RF theory and research, (3) cross-cultural research on motivation, and (4) research on adolescents’ motivation for education and career.

Implications for FTP theory and research

The interdisciplinary meta-analytic reviews presented in chapter 2 revealed the first robust confirmation that FTP can be considered as a powerful driver of human attitudes and behaviors within the domains of education, work, and health, and more importantly, that the effects of FTP are comparable across different life domains.

Moreover, the meta-analytic findings could explicate the disparity in study findings, which is due to the fragmented field of FTP research. Particularly, the meta-analysis helped to clarify the FTP construct and identified significant factors that are responsible for the variations in FTP-outcome relationships. Also, the conceptual framework underlying the different FTP measures (Figure 1 in chapter 2) led to two important findings. First, FTP measures that include a combination of individual's cognition, affect, and behavioral intention are most promising for future research as they have the strongest relationship with educational, work, and health outcomes. Second, FTP measures that involve domain-specific thinking (e.g., I like to dream about my future education) seem most predictive as they exhibited stronger relationship with educational outcomes than more general FTP measures. Both these findings underline the importance of further reflection on the conceptualization of FTP and its relationships with other future-oriented constructs within and across life domains.

Chapters 2 and 4 illuminate the importance of considering the outcome type when addressing FTP-outcomes relationships. Specifically, chapter 2 showed that FTP has stronger relationships with attitudes, behavioral intention, and perceived behavioral control than with objective verifiable behaviors. Chapter 4 confirmed this finding by showing that adolescents' FTP related more strongly to self-reported behaviors and behavioral intention (i.e., investment in learning and homework, and career planning) than to objective and verifiable outcomes (i.e., GPA and investment in learning assessed by teachers). The magnitude of the relationships between FTP and actual behaviors, albeit small, offers support for FTP theory but also call for more studies that include objective behavioral outcome measures. However, objective behavioral outcomes, such as GPA, are sensitive to rater bias.

Chapter 2 identified age and gender as significant moderators in the FTP-outcome relationships. Although chapters 3 and 4 showed small or non-significant effects of age and gender, the meta-analytic findings signal that age and gender should be controlled for in future FTP research as age and gender stereotypes might influence the FTP effects across domains .

Finally, a large majority of empirical studies have explored FTP as a precursor of different attitudes and behaviors (see chapter 2), whereas studies on possible determinants of FTP have been very limited. Chapters 3 and 4 that showed individual (adolescents' regulatory foci) and situational (parents' regulatory foci) antecedents of FTP on school and professional career across different cultures, highlight the importance of simultaneously considering personality and situational factors as determinants of FTP.

Implications for RF theory and research

This dissertation contributes to RF theory and research in two ways. First, chapters 3 and 4 extended the study of Pennington and Roese (2003) by showing that adolescents' RF is related to the way they think and feel about, and plan their future in school and professional career. Second, the RF scale by Lockwood et al. (2002) was adapted as to develop and test a new perceived parent RF measure that can be used in other RF studies and in research on motivation. From a theoretical perspective, this instrument helps to test the basic assumption of RF theory that parental attitudes and behaviors are highly influential for the development of regulatory orientations in children. Both chapters 3 and 4 provided a first confirmation for the relationship between adolescents' perceptions of their parents' RF and their own RF. Notably, results showed that perceptions of parents' promotion RF were positively related to adolescents' FTP while perceptions of parents' prevention RF were negatively related to adolescents' FTP. Hence, adolescents' perceived parent's regulatory focus may not only affect their own focus but also promote or prevent adolescents' reflections on the future.

Implications for cross-cultural research on motivation

This dissertation contributes to cross-cultural research on FTP and RF theory and motivation in general. First, there is a clear lack of systematic RF and FTP research in different cultural settings, especially in settings that notably differ on cultural values, socio-economic circumstances, and history. This dissertation fills this void. Whereas chapter 2 revealed cultural differences in the strength of FTP–outcome relationships across the three life domains in samples that primarily included (young) adults, chapter 4 showed FTP relationships with educational and career outcomes that were equal and generalizable across cultures. These different findings regarding the role of cultural context for the strength of FTP-outcome relationships call for more cross-cultural research including different samples (e.g., young adults, adults, retired people) and outcomes. Specifically, future cross-cultural research could explore the specific processes through which cultural context impacts the FTP-outcome relationship.

Second, this dissertation included countries that not only differ on Hofstede's (2011) cultural values but also on other indicators such as economic development, corruption, and recent historical traumas. Particularly, the findings in chapter 4 may break new ground for the motivational force of RF and FTP in countries that face hardship. Although it is said that "people blossom when challenged and wither when threatened" (Gilbert, 2012, p. 87), the challenges and fears of Serbian and Croatian adolescents seem to motivate them to fight their

uncertainty through setting strong strivings (having higher promotion and prevention foci) and reflections on their future educational and career outcomes. Indeed, the meta-analysis in chapter 2 indicated that FTP more strongly encourages the accomplishment of educational outcomes in cultures where individuals are uncomfortable with novel and unknown situations, such as Serbia and Croatia. Adolescents in these cultures may view their educational achievement as a way to avoid negative outcomes in the future, such as a low income, and adverse living conditions. Further, their strong FTP may motivate them to put extra effort into their education as to augment their chances for a better future. Obviously, RF and FTP may function as coping mechanisms for adolescents living in countries that face difficult circumstances such as Serbia and Croatia.

Third, the findings of this dissertation challenge previous FTP research that showed that individuals from individualistic vs. collectivistic countries put more effort in their future thinking and planning (House et al., 2004; Shirai & Beresneviene, 2005), and that there are no FTP differences among Western and Eastern European countries that had different political and economic ideology (Peetsma et al., 2005). The findings of this dissertation rather speak to Lewin's (1948) notion that a future time perspective protects against adversity and threat, fosters motivation and self-definition, and helps to cope with hardships. Adolescents in Serbia might have developed a stronger FTP than adolescents in the Netherlands and Croatia as to cope with the more difficult situation in their country.

Implications for adolescents' motivation for education and career

Adolescence is a critical period as adolescents across countries are faced with many important decisions that they have to make regarding their (future) education and career. Yet, a substantial number of adolescents lack motivation in school. This dissertation has integrated two motivational theories that are relevant for adolescents' goal setting and development (Nurmi, 1991). Chapters 3 and chapter 4 have shown that adolescents who have strong regulatory foci and contemplate about their future put more effort in their learning, homework, and career planning, irrespective of the economic and cultural context in which they live. Hence, the motivational forces of RF and FTP are universal rather than culturally bounded (e.g., Moriselli, 2013).

Furthermore, the findings of this dissertation underscore the important role that parents play for the motivation of their children. Specifically, parents who encourage their children to focus on their academic challenges and achievements rather than avoiding them, will motivate them to pursue challenging goals and reflect on the future. Future research could

thus benefit from applying RF and FTP theory in studying how parents could support adolescents' motivation for their (future) education and career.

PRACTICAL IMPLICATIONS

The studies presented in this dissertation also offer several recommendations for practice. The robustness and generalizability of FTP effects presented in the empirical chapters of this dissertation may encourage researchers and practitioners to develop FTP-based interventions in the educational, work, and health domains. Some prior intervention studies have shown that inducing FTP indeed influenced one's learning behavior and orientation, and thinking and planning about future education and career (Marko & Savickas, 1998; Peetsma & van der Veen, 2015, 2009; Schuitema, et al., 2014). For example, Peetsma and colleagues' TIME intervention that included time perspective theory, the theory of possible selves, and delay of gratification, showed that it is possible to stimulate students' motivated learning behaviors in school (Peetsma, van der Veen, & Jaap Schuitema, 2017). However, to date, interventions to influence adolescents' FTP across life domains are very scarce. Furthermore, studies that addressed possible situational and personal determinants of FTP together were scarce.

The cross-cultural evidence of the relationship between adolescents' RF and FTP in this dissertation, suggests that FTP could be induced by means of adolescents' RF. For example, similarly to the design and structure of the TIME intervention, students could visualize their (or their peers') potential challenges and fears relevant to goals in different life domains (e.g., looking fit, passing exams, finding a good job), and reflect on relevant steps to reach these future goals. Finally, these interventions could be tailored to a specific cultural context as RF and FTP differ across cultures (chapter 4) and relate differently to outcomes (chapter 2).

Generally, the findings from chapter 3 and chapter 4 offer a valuable basis for educational programs that can be tested and implemented in schools and during vocational counseling with students. First, the finding that adolescents' promotion RF was positively and their prevention RF was negatively related to their FTP on school and professional career, and to educational and career outcomes, suggests that it is important to assess students' RF in high school. In this way, school psychologists and career advisors could assess and identify students who need more assistance in their FTP and they could develop evidence-based interventions that stimulate adolescents' promotion focus.

Moreover, as shown in chapter 3 and chapter 4, parents play an important role for adolescents' RF and FTP on school and professional career. Specifically, the positive indirect and direct paths from perceived parents' promotion RF to adolescents' FTP provide an important indication that the RF of parents matters for the future opportunities of their children in different cultural settings. That is, parents who persuade their children to focus on challenges and positive outcomes rather than vigilance and negative outcomes can nurture children's future thinking and thus their effort in school and professional career. Accordingly, this finding can stimulate the development of family interventions and programs for parents on how to raise a promotion focus in their children and promote their motivation.

Finally, the robust and generalizable relationships between FTP and educational outcomes and career planning as evidenced in chapters 2 and 4 deserve the attention of education policy-makers, because educational research that shows effect sizes equal to or greater than .2 should be considered and implemented (OECD, 2004).

LIMITATIONS AND FUTURE DIRECTIONS

Besides the strengths of the conducted studies, the findings of this dissertation should be considered in light of some limitations. Although some of these limitations and their implications have been previously discussed in the respective chapters, I will discuss three relevant limitations.

First, most of the studies described in the meta-analyses and also in the studies of chapters 3 and 4, are based on self-reports of individuals' FTP, adolescents' and parents' RF, and some of the outcomes. Although assessing individuals' FTP and RF with self-reports is a logical approach as this matches the psychological nature of the constructs (Paulhus & Vazire, 2007; Schmitt, 1994) and is commonly used, self-reports may cause common method variance (i.e., variance attributable to the same measurement method and not to the assessed construct) resulting in bias such as inflated effect sizes (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In my own studies, I addressed this bias in several ways. That is, I measured parents' and adolescents' RF and FTP in different parts of the survey, I tested alternative models that assumed different relationships among the variables, and I used objective measures of students' achievement (i.e., GPA) and investment in learning as assessed by the teacher.

Second, all studies in the present dissertation and the studies included in the meta-analyses applied a correlational design. Thus, causal inferences cannot be made for the examined relationships, which inhibit drawing conclusions about the direction of the found

effects. For example, although we showed that adolescents who contemplated more about their future on school and professional career, put more effort in their school and homework, it might also be possible that these adolescents invested in their school and homework and were thus more motivated to contemplate on their future regarding their school and career. Likewise, although I tested the research model with a prospective three-wave longitudinal design and different samples in chapter 4, these features do not imply causality among the RF and FTP constructs. Therefore, future studies could experimentally manipulate parent and/or adolescent RF and test their influence on FTP and educational and career outcomes.

Third, results of the cross-cultural study described in chapter 4 may not be generalizable to other countries outside Europe. Particularly, even though I used the widely accepted and researched framework of Hofstede (2011) when selecting the countries, my conclusions might be generalizable only to adolescents living in European countries that differ on cultural values. For example, if I had compared adolescents from one European country (e.g., the Netherlands) with adolescents from another continent different in culture and with less socio-economical turbulences and a more favorable recent history (e.g., New Zealand), I might have found other results. However, my study was one of the few studies that compared countries that clearly differ on all cultural dimensions and socio-economic circumstances, revealing interesting findings. I hope this encourages other FTP researchers to more often investigate the effects of cultural context.

Fourth, the study in chapter 4 was the first to include and compare FTP and RF of adolescents in the Netherlands, Serbia, and Croatia and to find interesting differences in their scores. However, score differences in widely diverging cultures are relatively easy to identify and tend to be open to multiple explanations due to other - not necessarily cultural - differences (e.g., educational systems) among the countries, referred to as “the interpretation paradox” (Van de Vijver & Leung, 2000). Thus, the absence of measuring other contextual factors that could have shed more light on the country differences may have hampered the generalizability of this study. Consequently, future research could assess the impact of other distal cultural and socio-economic factors that are relevant for the involved countries, thereby contributing to more elaborate and robust interpretations of the findings.

In light of the described limitations and based on the findings from the chapters in this dissertation, I recommend several lines of research (see Figure 1).

Proximal and distal situational determinants of FTP

The findings of this dissertation highlight the importance of exploring both proximal (e.g., family environment, school, peers) and distal (e.g., cultural context) situational factors affecting individuals when pursuing their goals. Specifically, the finding that perceived parent RF is related to adolescents' FTP suggests that future studies could explore the influence of other proximal and distal contextual antecedents of adolescents' FTP, such as the (perceived) foci of parents, teachers, and peers and their relationships with educational outcomes. For example, recent studies revealed significant relationships among perceived parent and peer attachment styles and FTP (Laghi, Pallini, Baumgartner, & Baiocco, 2016) suggesting that both parents and peers influence the development of adolescents' FTP on school and career (Schuitema, Peetsma, & van der Veen, 2016). However, the knowledge whether these relationships hold across different cultures is scarce. Thus, future studies could test contextual factors that shape adolescents' FTP such as family, school, and peers, which are major aspects of adolescents' microsystem (Bronfenbrenner, 1979), accounting for the broader cultural context.

Extending the RF–FTP–outcomes model to other life domains

The FTP measure and its antecedents and outcomes examined in chapter 4 all concerned the domain of education and career. However, given that cultural differences in FTP and FTP–outcome relationships can be domain specific (Peetsma et al., 2005; Seginer, 2008), as the meta-analysis has confirmed, it would be important to test the RF–FTP–outcomes model presented in chapter 4 in other life domains, such as health, social relationships (e.g., family and marriage), and with different samples (e.g., adults, retired people). For example, as FTP and work relationships deteriorate over time it would be interesting to test RF - FTP relationships with adults and predicting different outcomes. For example, a study by Joireman and colleagues (2012) showed that individuals' consideration about future consequences related positively to their healthy eating habits and exercise when they were more promotion orientated. Hence, future research could test how RF and FTP may interact in predicting different attitudes and behaviors among different populations (e.g., adolescents in a transition period to adulthood, adults, and retired people). This would broaden our understanding of the general processes underlying the motivational force of FTP in different life domains.

Furthermore, the finding that RF and FTP motivated individuals even in countries that went through hardship and may serve as a coping mechanisms, suggests that FTP may relate to resilience (i.e., the capacity to adapt well to hard times or stressful events). Individuals who score high on RF and FTP may be more resilient to overcome adversities. If so, this finding would be relevant for individuals from countries that are going through turbulent situations caused by wars, or political changes, or other life events that inhibit their goal pursuit. Consequently, it would be interesting to investigate the relationships between RF, FTP, and resilience.

Exploring RF and FTP relationships over time

Obviously, studies on FTP need to address the issue of time. First, due to a small number of longitudinal studies (especially in the work domain) as evident in the meta-analysis, little is known about whether and how FTP–outcome relationships change over time. For example, relationships may vary with life stages or periods of transfer such as stepping from adolescence to adulthood, starting a family, or retiring. Hence, it would be interesting to test the relationships in the RF-FTP-outcomes model over different periods of time.

Moreover, as FTP is related to other time frames (past or present) as shown by old and more recent research (Frank, 1939; de Bilde, Vansteenkiste, & Lens, 2011), it is vital to further explore the FTP relationships with past and present time frames. For example, it would be interesting to explore how past and present events and present and past time perspectives influence the use of individuals' RF and FTP strategies. Finally, as age was a significant moderator of FTP-outcomes relationships, and is by definition a time-related construct, future studies could, for example, investigate how the content of the FTP construct develops over people's lives.

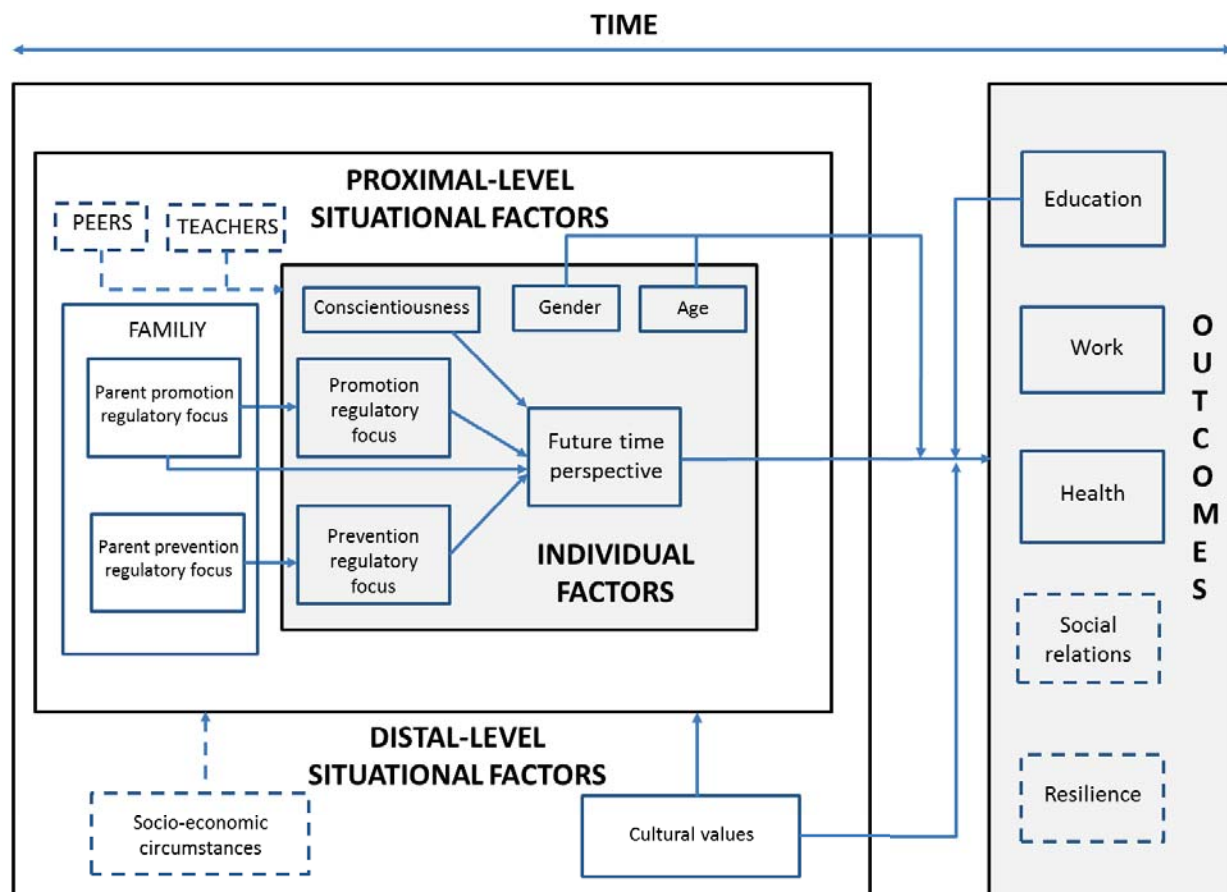


Figure 1. A contextual RF-FTP-outcomes model.

OVERALL CONCLUSION

In this dissertation, I addressed two central questions: (1) are people's present motivation, intentions, and behaviors in the education, work, and health domains affected by their FTP, and (2) what causes people to reflect on their FTP. After exploring these two questions across different countries and related to different life domains, I can conclude that FTP that embraces individuals' future imagination, expectations, emotions, and planning is an universal motivator. Specifically, adolescents' proneness to contemplate on their future is determined by their RF strategies and how they perceive the RF strategies of their parents. This motivational process aimed at reaching educational and career goals is largely the same across countries that differ in culture, socio-economic systems, and history. Yet, adolescents from collectivistic countries and with greater political and economic uncertainties tend to develop a stronger orientation to approaching possible gains and avoiding possible losses, and to reflect on their future.

To conclude. I hope that my dissertation will motivate other researchers to further investigate FTP and other self-regulatory variables relevant for goal striving, ultimately advancing motivation theory and the development of interventions that help individuals across cultures in pursuing their goals.