

Gender Differences in Aspirations and Attainment

A Life Course Perspective

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15 Motivational affordances in school versus work contexts advantage different individuals: a possible explanation for domain-differential gender gaps

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Abstract

In the last decade, girls have attained similar achievement levels in mathematics and natural sciences as boys. Girls also value mathematics or sciences as highly as boys do. However, women are still not attaining equivalent career success in professional fields associated with mathematics and natural sciences, such as engineering and computer science. One possible explanation for the disassociation between school-based motivation and achievement in mathematics and sciences, on the one hand, and successful entry and pursuit of science-related careers, on the other hand, might be that the two achievement contexts – school and work/career – require different motivational self-regulatory skills to be most effective. The chapter discusses a set of individual differences in various components of motivational self-regulation, ranging from opportunity-congruent goal selection to implicit and explicit motives, volitional commitment, and goal disengagement and self-protection. To date, we have only scarce empirical evidence about gender differences in these components of motivational self-regulation. However, the stark contrasts between the self-regulatory requirements in the highly structured school versus the low structured work domain present a fascinating research area to begin to explain the gender gap between the two domains of achievement behavior.

Introduction

In the last decade, girls in most countries have caught up with boys regarding achievement in mathematics and other STEM fields (i.e., science, technology, engineering, and mathematics) (Hyde, Lindberg, Linn, Ellis, & Williams, 2008). Cross-national analyses suggest that remaining gender gaps in math performance are associated with gender inequities in society reflected in such indicators as gender distributions in school enrollment, research jobs, and seats in parliament (Else-Quest, Hyde, & Linn, 2010). Moreover, boys no longer value mathematics or sciences more than girls do (Wigfield & Eccles, 2002, see also Chow & Salmela-Aro; Jerrim & Schoon; Parker, Nagy, Trautwein, & Lütke; Wang & Kenny, this volume). However, men are still more successful in entering

and pursuing professional careers in STEM fields, such as engineering and computer science (Schoon, Martin, & Ross, 2007; see also Bagnoli, Demey, & Scott, this volume).

Researchers have scrambled to explain this incongruence between gender similarities in school-based motivation and achievement and gender divergence in career success for the STEM fields. Some research, especially coming from a sociological approach, has focused on social contextual factors such as parental socioeconomic status (SES) and aspirations, SES- and gender-differential resources and opportunities (see review in Schoon et al., 2007; Schoon & Silbereisen, 2009; see also Bagnoli et al., this volume). The present chapter leaves these aspects aside and focuses selectively on the potential school versus work differential effect of individual differences in processes of motivational self-regulation. In the search for an explanation of the gender gap in career achievement given the equal attainments in school, one would have to look for factors that have little influence on school performance, but become consequential in the world of work outside the highly regulated educational institutions of high school and college. The motivational theory of life-span development provides a conceptual framework for examining the role of individual differences in motivation as sources of differentially effective agency in different life course contexts, specifically here school versus work life. I will argue that in the less structured and less regulated world of work and career, individual differences in four aspects of achievement motivation and self-regulation will have greater consequences than in the highly structured school context. Those four aspects pertain to (1) how multi-faceted and flexible a person's achievement goals are, (2) whether the general achievement motive is activated in a wider range of achievement contexts or is more focused on the career domain, (3) whether a person has strong explicit and/or implicit achievement motives and the degree to which implicit and explicit achievement-related motives are congruent, and (4) the capacity to organize one's action cycles into discrete phases of goal engagement and of goal disengagement in accordance with the control opportunities in the current developmental context. Overall, the empirical research regarding gender differences in these four aspects of achievement motivation and self-regulation is not yet well developed and thus provides ample exciting avenues for future empirical investigations into the causes for the baffling domain-differential gender differences.

A motivational theory of life-span development

Human life-span development reflects comparatively vast individual variations. One of the major challenges for life-span developmental psychology is to explain how, given the vast ontogenetic potential and life course variability for humans, most individuals manage to lead consistent and meaningful lives that follow productive paths into and throughout adulthood (Heckhausen, 1999; Heckhausen, Wrosch, & Schulz, 2010). Three major factors of influence

contribute to the structuredness of human life courses: (1) biology of maturation and aging, (2) societal institutions and social structure, and (3) the individual as an active agent in his/her own development. Biological and societal influences bring about an age-graded sequence of developmental tasks that provides both constraint and supportive structure to the individual's life-span developmental agency. Opportunities are not distributed evenly across the life course. Instead they cluster around certain transitions, one of which is the transition from school or college to employment and work.

Our approach to the regulation of life-span development focuses on the impressive adaptive capacity of individuals to optimize development across major changes in the life course (Heckhausen, 1999; Heckhausen & Schulz, 1995; Heckhausen et al., 2010). Individuals substantially contribute to regulating their own development by pursuing developmental goals that organize how much time and effort they invest in their life course. Individual differences in the self-regulatory capacities that are required to do this developmental regulation successfully should have major consequences on how well the individual fares in his/her life course, particularly during times of transition and in domains of life that require a great amount of individual agency.

The motivational theory of life-span development (Heckhausen et al., 2010) proposes that the major criterion of adaptive development is the overall *primary control* realized in a life course; that is, the extent to which the individual realizes control over his/her life and immediate social environment across different domains of life (work, family, leisure) and throughout their life course. This underlying goal of maximizing primary control is realized best if the individual is aware and adjusts goal choices on changes in opportunities and constraints to goal striving as they move from school to college, to work, from family of origin to finding a long-term romantic partner, building a family, and so on. Biological maturation and aging as well as societal institutions (e.g., education, labor market, retirement) set up a general life-span trajectory of control capacity that resembles an inverted U-shaped curve, composed of a steep increase during childhood and adolescence, a peak and plateau in young adulthood and middle age, and a continuous decline in old age (see Figure 15.1). Adaptive developmental agency should reflect these changes in opportunities for growth and risks for decline. And indeed, when looking at adult age group differences in goals reflecting striving for gains versus goals reflecting avoidance of losses, we find a decrease of growth-approach goals and an increase in loss-avoidance goals from young to middle to old age (see Figure 15.2).

The general life course trajectory of first increasing and then decreasing opportunities is overlaid with more domain-specific trajectories of improving and declining chances for achieving specific developmental goals (e.g., build a family, enter a professional career) (see Figure 15.3). Societal institutions and structures, such as the educational system, the labor market, and vocational career patterns, set up critical transitions (e.g., school entry, promotions, retirement) and sequential constraints (e.g., educational qualifications as prerequisites for certain

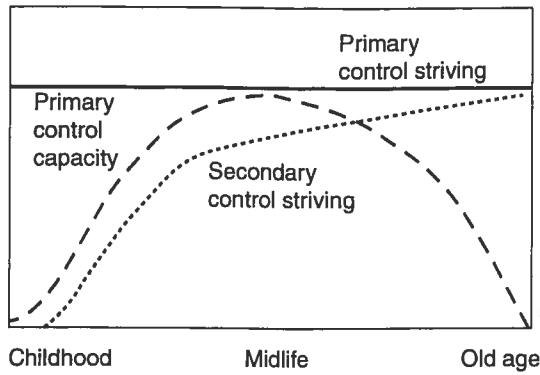


Figure 15.1 Hypothetical life-span trajectories for primary control potential and primary and secondary control striving (from Heckhausen, 1999)

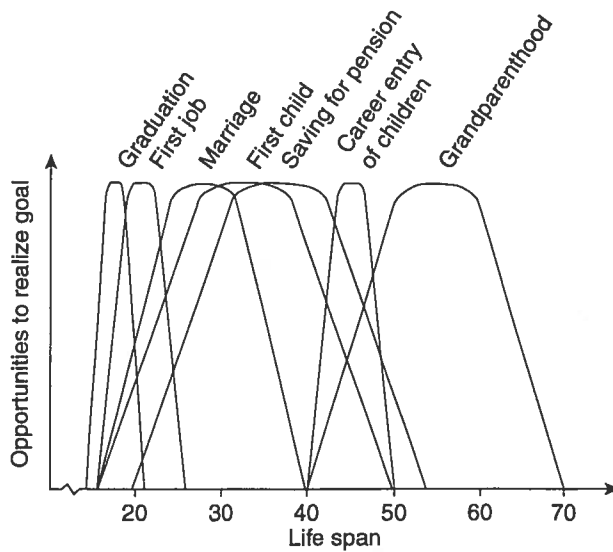


Figure 15.2 Age-graded sequencing of opportunities to realize various developmental goals (from Heckhausen, 2000)

careers). These transitions with their shifts in opportunities are both challenges to the individual and chances to optimize one's goal striving in congruence with the changes in the developmental ecology. In this process, some developmental goals for which opportunities have vanished (e.g., get into a top-ranked college after admission period is over) have to be given up forever, a phenomenon captured in the construct of "developmental deadline" (Heckhausen, Wrosch, & Fleeson, 2001; Wrosch & Heckhausen, 1999). The individual has to develop the capacity to identify the degree of controllability present in a given social and developmental ecology, and then adjust his or her goal selection to it. This might involve disengaging from futile or illusory goals, adjusting the goals to fit the reach of one's capacity for primary control (i.e., control of one's social and material environment) and re-engage with this newly adjusted goal. These motivational

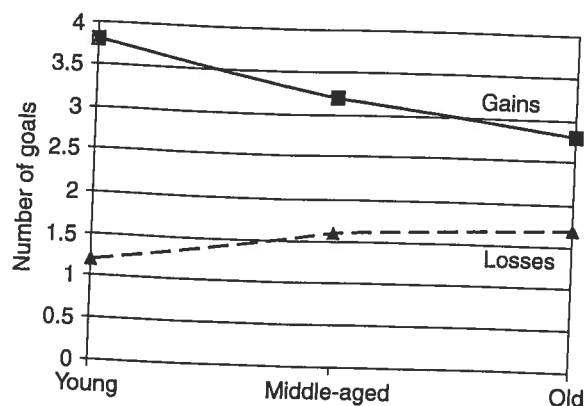


Figure 15.3 *Striving for gains and avoiding losses in developmental goals across age groups (from Heckhausen, 1997)*

adaptations are challenging and individuals differ in the degree to which they master them. I will return to this issue in the section on “Action Cycles of Goal Engagement and Disengagement in Congruence with Context Opportunities.”

School and work: two contrasting social contexts for individual agency

What are the motivational challenges an individual agent faces in school versus in the domain of paid work? Let us turn first to the social and institutional context of K–12 schools. The school classroom provides a highly structured set of demands and opportunities. It is typically not the student but the teacher (or school authority) who sets the curriculum, pace of progress, and level of difficulty in homework, tests, and exams. Achievement demands are standardized; performances are closely monitored and can easily be compared between individuals. Thus, educational institutions, especially schools K–12, but also colleges, provide few degrees of freedom for the individual agent to truly engage their achievement motive. Traditional schools leave little room to generate self-chosen goals in congruence with one’s achievement motive (Heckhausen & Heckhausen, 2011; see also Eccles & Roeser, 2011; Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006) and to regulate one’s own progress through action phases of goal engagement and goal disengagement or adjustment.

In contrast, the world of work, especially during the process of career entry, is much less structured and thus can reflect individual differences in motivation and action regulation to a greater extent. During job searches, individuals can exert more or less persistence, and show more or less capacity to realize when a lowering or enhancing of aspirations is called for, or when to move on from a given non-optimal job to search for a better job en route to the desired career. Because the social institutions involved in young adults’ early career building (e.g.,

vocational training schools) in most countries provide little structure (Hamilton, 1990; Heinz, 1999), they leave the majority of decisions, calibrations, and regulations to the individual agent.¹ Based on this reasoning, one can predict that individual differences in motivational preferences and self-regulation should play a much larger role in early careers compared to school and college.

Achievement goal orientations

The achievement goal construct was based on the work of several motivational researchers, including Carol Ames, Carol Dweck, Marty Maehr, and John Nicholls (see review in Elliot, 2005). According to current achievement goal theory, individuals differ in the degree to which they prefer mastery-oriented goals or performance-oriented goals, and also in the degree to which they are oriented toward approaching success versus avoiding failure. Here we will focus on the distinction between mastery and performance goals. Mastery goals pertain to the incentive of improving one's competence (i.e., getting better) in the task-relevant behavior. In contrast, performance goals are extrinsic to the activity and geared toward maximizing favorable evaluations of the self, particularly in comparison to others (i.e., doing better than others). Early theorists agreed on the notion that mastery goals were superior to performance goals in motivating successful achievement behavior. Numerous empirical studies indeed showed achievement behavior and achievement emotions of mastery-oriented students to be superior to achievement behavior and emotions in performance-oriented students (see summary in Barron & Harackiewicz, 2001). However, the actual academic performance was less consistently related to students' mastery orientation (Harackiewicz, Barron, Tauer, & Elliot, 2002).

With respect to initially shunned performance goals, over the years, evidence has accumulated regarding their widespread spontaneous use (see review in Senko, Hulleman, & Harackiewicz, 2011) and their potential adaptive effects, particularly when coupled with a positive perception of own competence and/or an approach (rather than an avoidance) orientation (Harackiewicz, Barron, & Elliot, 1998; Witkowski & Stiensmeier-Pelster, 1998). This evidence gave rise to a "multiple goal perspective" (Barron & Harackiewicz, 2001; see also review in Elliot, 2005) that proposes that different achievement goals and notably *combinations* of achievement goals may promote better achievement and wellbeing outcomes in different settings. To date, considerable evidence supports this view. For instance, combinations of mastery and (approach) performance goals (i.e., showing oneself as more competent than others) seem to be particularly motivating in the workplace (Farr, Hofmann, & Mathieu, 1993), in sports settings (Fox, Goudas, Biddle, Duda, & Armstrong, 1994), but also in the school context (Pintrich, Conley, & Kempler, 2003).

¹ Exceptions are a small number of countries with highly structured vocational training systems such as Germany and Poland (Hamilton, 1990; Heinz, 1999).

Empirical research on gender differences in achievement goals is scarce. The available evidence either indicates no gender differences in achievement goals (Meece, Glienke, & Burg, 2006) or it suggests that in the school context girls are more oriented toward mastery goals than boys (Anderman & Young, 1994; Pajares, Britner, & Valiante, 2000), whereas boys are more oriented toward performance goals (Pajares & Cheong, 2003).

Implicit and explicit motives

In recent years, motivational researchers have differentiated between two types of motives, implicit and explicit motives (Brunstein, 2011; McClelland, Koestner, & Weinberger, 1989). *Implicit motives* are what traditional motivational psychology identifies as *need*, for instance *need (n) for Achievement*, *n Affiliation*, *n Power* (Heckhausen & Heckhausen, 2011). They are acquired early in life during the preverbal period and thus inaccessible to introspection. Assessment of implicit motives requires the use of non-self-reflective methods, specifically the projective method of thematic apperception (TAT). Implicit motives energize, direct, and select "*operant*" (McClelland, 1980) behavior that is instrumental for satisfying the respective motive (e.g., improving one's mastery in the case of *n Achievement*). Implicit motives predict behaviors that are more spontaneous and self-initiated, such as effort expenditure, spontaneous mastery activity, attention, and learning with regard to motive-relevant materials and activities. Such *operant* behavior is less likely to adhere to external prompts or constraints. In this regard, the classroom and school setting in general is ironically inhospitable to the implicit achievement motive (Heckhausen & Heckhausen, 2011; for the junior high school context, see Wigfield et al., 2006), whereas career striving with less structured challenges offers plenty of cues and incentives for a strong implicit achievement motive.

In contrast, *explicit motives*, sometimes also referred to as (explicit) *goals*, reflect the individual's self-concept, that is the way an individual sees him/herself and wants to present the self to themselves and others (Brunstein, 2011; McClelland et al., 1989). They are best assessed using self-report measures such as questionnaires about goals. Explicit motives influence behavior that is under conscious and deliberate control, and are *respondent* to external stimulation or prompts, such as a questionnaire, classroom setting, or in a clearly delineated decision situation (McClelland, 1980). In unstructured situations such as seeking a job or investing in a career, explicit goals can function as effective tools, but will not help with seeking out opportunities and maintaining effort across longer time periods and unforeseen obstacles.

Interestingly, implicit and explicit motives appear to constitute distinct and independent motivational systems that are only weakly correlated (Schultheiss & Brunstein, 2001). Moreover, and most importantly for the issue of context-differential behavior, implicit and explicit motives are selectively useful in different situational settings (Brunstein, 2011). For example, implicitly but not explicitly

assessed achievement motives predicted greater effort expenditure and faster learning when people were given tasks but not told to try to do well (Biernat, 1989; deCharms, Morrison, Reitman, & McClelland, 1955). Moreover, in the not so closely structured domain of career, high implicit achievement motive, but not explicit achievement motive, predicts occupational, economic, and business success (McClelland, 1961), sometimes in combination with high implicit power motive (McClelland & Boyatzis, 1982). In addition, implicit motives are enticed when task-inherent incentives (e.g., production output) are present. In contrast, extrinsic questionnaire-assessed motives were enticed by the presence of social achievement incentives such as school grades (Brunstein & Maier, 2005; Spangler, 1992). In sum, implicit motives are more effective for navigating less structured situations or life-transitions in accordance with the individual's motive strengths, whereas explicit motives are most effective when a situation is well structured and requires specific responses and decisions.

Most interestingly, it makes a difference whether implicit and explicit motives are congruent or not (see review in Brunstein, 2011; Langan-Fox, Samkeu, & Canty, 2009). People whose implicit and explicit (goals) motives are congruent report better psychological wellbeing and life satisfaction (Brunstein, Schultheiss, & Grassman, 1998; see review in Brunstein, Schultheiss, & Maier, 1999; Brunstein, 2011), whereas implicit/explicit motive incongruence was associated with low emotional wellbeing (Baumann, Kaschel, & Kuhl, 2005; Brunstein et al., 1998).

The relation between implicit and explicit motives is a relatively recent area of research and to date little is known about gender differences in this regard. Given the findings of the differential effectiveness of explicit and implicit motives in more (for explicit motives) or less (for implicit goals) structured achievement contexts, gender differences in this regard could contribute to the differential success of men and women in school versus work contexts.

Domain-focus of achievement motive

Another aspect of achievement motivation pertains to the breadth versus selective focus of the achievement motive on certain domains of competence. Classical achievement motivation theory does not speak to this issue (Brunstein & Heckhausen, 2011) and interest theory (Krapp, 2002) addresses intrinsic attraction to certain content domains, but not whether the need for achievement is triggered by these content domains. However, from an everyday lay perspective on motivational psychology we know that different individuals have different domains of achievement behavior that "make them tick." It seems likely that these domains differ in the profile of incentives they provide in terms of activity-inherent, outcome-related, or consequence-related incentives. Particularly interesting are differences in activity-intrinsic versus activity-extrinsic indicators of success. Some individuals may rely more on activity-intrinsic indicators such as experiences of flow (Rheinberg, 2008) or meeting one's personal achievement

standards and experiencing the emotion of pride, whereas others may be adept at extracting information about their own competence from extrinsic feedback, such as social comparison with classmates or co-workers, praise from a superior (e.g., teacher, boss), career advancement, or salary.

Very little is known about such individual differences in which people see available incentives given the same level of achievement motive. However, some early empirical evidence on gender differences in achievement behavior indicated that men high in achievement motive exhibit achievement behavior in more narrowly constrained domains of career and leadership, whereas women high in achievement motive showed broader achievement behavior in domains beyond career and leadership (Stewart & Chester, 1982). Based on two studies of need achievement in the years 1957 and 1976, Veroff (1982; Veroff, Reuman, & Feld, 1984) reports that for men in the United States, high *n* Achievement is associated with preferring work to leisure and viewing work as fulfilling one's major life goal. In contrast, women with high *n* Achievement in the late 1950s and even mid-1970s were more likely to participate in challenging leisure activities and view leisure as their major life goal. Moreover, Veroff reported that women's need achievement scores increased between the two assessments in 1957 and 1976, whereas men's scores remained stable. Veroff concluded that the expression of achievement motivation reflects changes in societal opportunities for the two gender groups. In the relevant period, the 1960s and early 1970s, the Women's Movement had greatly expanded accepted domains for women's achievement behavior.

Moreover, women may use ways of creating achievement challenges for themselves in alternative achievement domains in societies that do not offer such opportunities in careers accessible to women if the highest-status careers provide fewer such opportunities for women. For example, senior year women's high *n* Achievement predicted employment in a teaching career 14 years later (Jenkins, 1987). Those highly achievement-motivated women who worked in achievement-compatible careers increased their achievement motivation over time, whereas those who had ended up in achievement-incompatible careers valued career advancement less, saw fewer status mobility routes, had career interruptions, and became more involved in homemaking and mothering than in work. Individuals' life social context can thus arouse or suppress achievement motivation over time or channel it into a different domain that is more in line with societally accepted gender roles.

Finally, cultural norms regarding accepted achievement domains for women may require a stronger achievement and or power motive than men have to have in the same careers. Evidence for this notion stems from a study of women managers in the 1980s that found women enrolled in MBA programs had higher *n* Achievement and *n* Power scores than men enrolled in the same programs (Chusmir, 1985). It seems that during times of strong societal discouragement of women from high achievement and power careers, it takes an extra push of implicit motive(s) to overcome the societal hurdles (Duncan & Peterson, 2010).

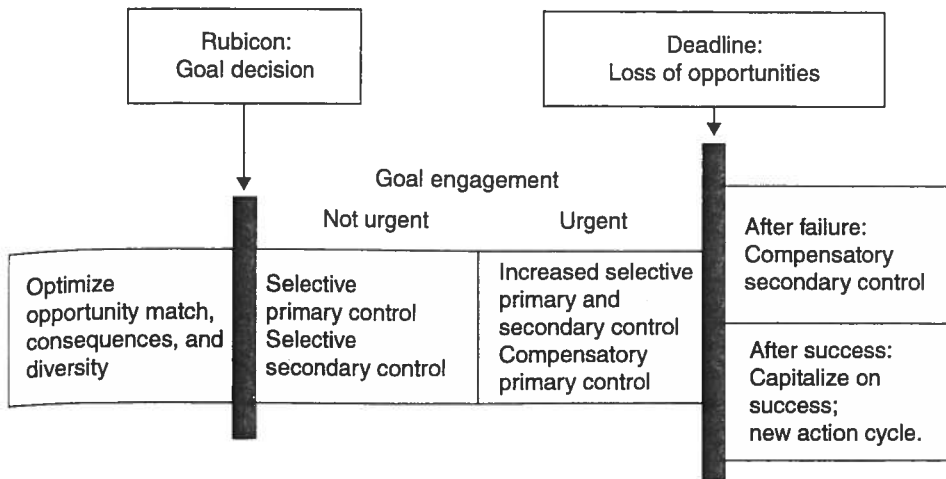


Figure 15.4 Action-phase model of developmental regulation (from Heckhausen, 1999)

Women today entering science, engineering, and computer science careers may have to come up against similar obstacles and may have received an extra boost of an exceptionally strong achievement motive.

Action cycles of goal engagement and goal disengagement in congruence with context opportunities

Successful development critically depends on whether an individual is able to regulate his/her own motivational investment in on-time goals that match the developmental opportunities of a given social ecology (e.g., school, internship, entry-level position, senior position in a company's hierarchy). The individual needs to select, pursue, and adapt his/her developmental goals to reflect changes in life course opportunities.

Figure 15.4 shows the action-phase model of developmental regulation (see detailed discussion in Heckhausen et al., 2010). The developmental action-cycle starts out with a phase of *optimized goal choice*, during which the individual has to weigh the pros and cons of different developmental goal pursuits in terms of their value and expected opportunities for success, as well as the consequences they have on other goal pursuits that are concurrent or may be activated in the future. For example, pursuing a high-engagement career has lots of potential benefits, but may hamper one's opportunities to build a family. Such career-family trade-offs are particularly difficult for women, who come up against biological constraints in child-bearing (Heckhausen et al., 2001; Wiese & Freund, 2000). Once a person has made a decision about which goal to pursue, s/he enters the volitional phase of goal pursuit, during which behavior (selective primary

control) and motivated cognition (selected secondary control) is strongly biased toward persistence and strengthening of goal pursuit. The volitional commitment becomes particularly pronounced during phases of urgent goal pursuit when the remaining time to reach that goal (the deadline) runs out. During the urgency phase, individuals will be more motivated to even use means of compensatory primary control by requesting help from other people or by finding new or detour-like strategies to reach the goal when the usual strategies fail. Once the deadline of declining and insufficient opportunities has been passed, the individual has to master a radical shift from high volitional engagement with an urgent goal to disengagement from that goal. In the process of disengagement and thereafter, it may be necessary to use strategies of self-protective thought in order to not suffer a depletion of self-esteem and hopefulness for future goal pursuits. Such self-protective compensatory strategies include thoughts to avoid self-blame and attributions to external factors, re-evaluation of the value of the original goal, and social comparisons with people who were also not successful or even worse off than oneself.

These shifts from optimized goal choice to volitional goal engagement to disengagement and self-protection require a highly developed capacity to self-regulate one's motivational processes. People differ in the extent to which they master the various components of the progression through the action phases. Those individuals will fare best who can stay ahead of the game and anticipate emergent opportunities for goal pursuits, activate behavioral and motivational strategies of goal engagement, disengage from goals that have become unattainable and/or too costly in a new developmental ecology, and replace old and futile goals with goals that are still or newly attainable in the new context.

There are individual differences in the extent to which people respond to changes in opportunities and to newly arising constraints with appropriate goal choices, goal engagement, and goal disengagement. Opportunity-goal congruency is an achievement of individuals' motivational self-regulation. Those who are more competent in this regard have more positive developmental outcomes in terms of both objective attainments (e.g., educational qualifications, entry in vocational career) and subjective wellbeing. Most of our evidence to date is with regard to goal adaptations in middle-aged and older adults (Heckhausen et al., 2010). However, we also have evidence that German adolescents as young as 16 years of age can calibrate their vocational aspirations to the accessible vocational training market (Heckhausen & Tomasik, 2002; Tomasik, Hardy, Haase, & Heckhausen, 2009). In contrast, US youth in California fared best in terms of attaining long-term educational goals when they started with greatly optimistic goals that seemed hardly realistic at the time of their graduation from high school (Heckhausen & Chang, 2009).

Regarding the employment of selective secondary control strategies (i.e., strategies to enhance one's volitional commitment to a goal, for example, by boosting its perceived value or controllability) of enhancing one's volitional commitment to a goal, we have evidence that they make a difference when youth are facing a

particularly burdensome life situation. Poulin and Heckhausen (2007) found that for those adolescents who had recently experienced a very severe life event (i.e., death or life-threatening illness of family member, divorce of parents), only those who used selective secondary strategies of enhancing volition were able to keep up their primary control striving for a vocational training position.

Research in this area has not identified gender differences in youth's usage of various control and self-regulatory strategies to date. However, one study uncovered a differential effectiveness of goal engagement strategies for girls compared to boys (Haase, Heckhausen, & Köller, 2008). In this study of German youth, girls searching for vocational training positions in the context of the German vocational training and labor market were more likely to find a position if they combined behavioral investments in primary control striving (e.g., write job applications) with volitional self-management to enhance goal commitment (e.g., focus on how important it is to find a job; Haase et al., 2008). Both girls and boys profited from such goal engagement in terms of their subjective wellbeing.

As mentioned, gender differences were not found in usage of compensatory secondary control strategies, that is, in strategies of goal disengagement and self-protection. However, the studies were conducted either in a clearly structured educational system (the California system of community colleges and universities) or in the similarly clearly structured German system of vocational training (apprenticeships). It was unknown if gender differences would emerge in the realm of job and career search, where individuals need to take greater self-initiative to achieve desirable outcomes. There is some evidence in research on older adults for women's greater propensity and competence to use compensatory secondary strategies, such as goal adjustment and self-protection (Chipperfield, Perry, Bailis, Ruthig, & Chuchmach, 2007). If such gender differences were to be found among young job seekers and career beginners, they might set up women for less persistence along ambitious career paths that are riddled with setbacks and uncertain decision points.

Summary

Effective achievement striving in the school and the work contexts may require different self-regulatory and motivational processes. The school context is more structured and facilitates explicit goal setting and feedback as well as social comparison. The context of work and career is less well structured in terms of the sequential requirements, timing of initiatives (e.g., when to move on to the next and better job), and criteria for success. As a consequence, the two achievement contexts may favor different individuals who hold greater strength in structured versus unstructured achievement striving. A set of individual differences in motivational self-regulation was discussed that

may be relevant: (a) whether an individual is primarily oriented toward mastery or performance goals or able to use both kinds of goals flexibly as needed in a given achievement setting; (b) whether the general achievement motive is activated in a wider range of achievement contexts or is more focused on the career domain; (c) whether a person has strong explicit and/or implicit achievement motives and the degree to which implicit and explicit achievement-related motives are congruent; and (d) the capacity to organize one's action cycles into discrete phases of goal engagement and of goal disengagement in accordance with the control opportunities in the current developmental context. To date, we know very little about gender or other group (e.g., ethnic, social class) differences in these components of motivational self-regulation. However, initial evidence suggests that based on their strengths and weaknesses in motivational self-regulation, girls and women are better in more structured contexts such as school, whereas boys and men hold an advantage in the less structured domain of work and career. We still know far too little to be confident about this conclusion, but it is an intriguing possibility that warrants further research. This line of research has the potential to guide interventions to enable individuals of either gender to use their motivational capacities and specializations and mindsets as productively as possible in multiple contexts of work, family, community, and leisure.

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