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11

FREE FANTASIES ABOUT THE FUTURE AND THE EMERGENCE OF DEVELOPMENTAL GOALS

Gabriele Oettingen

Action-theoretical models and research provide a new framework for analyzing questions of human development across the life span (Brandtstädter, 1998). Action theories as introduced by psychologists of motivation, social psychologists, and personaliry psychologists (for summaries, see Gollwitzer & Bargh, 1996; Locke & Latham, 1990; Pervin, 1989) focus on how people's goals guide their actions. More specifically, action theories analyze such phenomena as the monitoring of goal pursuit (Carver & Scheier, 1998), the evaluation of goal attainment (Bandura, 1991), the mastery of increasing difficulties (Wright & Brehm, 1989), and the responding to and coping with failure (Bandura, 1991; Carver & Scheier, 1981,1982,1998; Taylor & Brown,1988; Wicklund & Gollwitzer,1982). Two rypes of goal theories have been suggested to explain these phenomena (Gollwitzer & Moskowitz, 1996). Goal content theories point to the importance of goal content (Dweck, 1996; Deci & Ryan, 1991) and goal

framing (Bandura & Schunk, 1981; Higgins, 1996; Locke & Latham, 1990), whereas self-regulation theories of goal pursuit focus on the role of planning and other self-regulatory strategies for successful goal pursuit (Friedman & Scholnick, 1997; Gollwitzer, 1996; Kuhl & Beckmann, 1994).

Developmental action theories address additional issues of goal pursuit, such as the ontogeny of intentional action (Lütkenhaus & Bullock, 1991), the development of a sense of control and personal agency (Oettingen, Little, Lindenberger, & Baltes, 1994; Skinner, Chapman, & Baltes, 1988), and the development of the self-system (Harter, 1983) as prerequisites of effective self-regulation. Moreover, developmental psychologists have started to map out the content of people's personal goals (or current concerns, Klinger,1987; personal projects, Little, 1983; personal strivings, Emmons, 1986; life tasks, Cantor & Kihlstrom, 1987) across the life span (Nurmi, 1992; Ogilvie & Rose, 1995; Rapkin & Fischer, 1992), whereby the interrelatiorls and the hierarchical structure of goals are also investigated. More recently, researchers have analyzed how various aspects of personal goals, such as goal content (materialistic versus autonomous; Kasser & Ryan, 1993), goal framing (concrete versus abstract; Emmons, 1996), goal attainability (Brunstein, 1993), social support (Brunstein, Dangelmayer, & Schultheiss, 1996), and the matching of goal content with the person's needs (Brunstein, Schultheiss, & Grässmann, 1998), affect life satisfaction and thus the person's adaptation to the demands posed by the various stages of life.

The dynamic issue of what kinds of psychological processes account for strong and weak goal commitment has been mostly neglected, however. This neglect holds for general as well as for developmental theorizing and research on goals. There is an exception with respect to the decay of goal commitment. Brandtstädter and Rothermund (1994; see also Brandtstädter, Wentura, & Greve, 1993) have analyzed the psychological processes that account for the weakening of goal commitment (i.e., accommodative processes that lead to the adjustment of goals in response to a reduction of action resources in old age). With respect to the emergence of goal commitment, however, there is still a lack of ideas and research, even though the goal literature acknowledges that people are producers of their own development. Goal striving does not end when people achieve their goals; rather, they commit themselves to new goals (regarding proactive goals, see Bandura, 1991; on developmental system theory, see Ford & Lerner, 1992). It is assumed that whether a new goal is chosen depends on the level of respective

efficacy expectations (Bandura, 1991) and whether the new goal fits into the hierarchy of existing goals (Emmons, 1996). No effort has been made, however, to delineate the psychological processes leading up to individuals' readiness to set themselves binding action goals. In this chapter, I present a theory of fantasy realization (Oettingen, 1996, 19976) that accounts for people's readiness to set themselves developmental goals in terms of their free fantasies about their personal futures.

FANTASY REALIZATION THEORY

It is possible to distinguish between two forms of thinking about the future: expectations and free fantasies (Oettingen, 1996, in press). *Expectations* are judgments of how likely it is that certain future outcomes or behaviors will occur. Expectations are based on a person's experiences in the past and therefore reflect his or her performance history. *Free fantasies* about the future, on the other hand, are thoughts and images that depict future outcomes or behaviors in the mind's eye, independent of the likelihood that these events will actually occur. In free fantasies about the future, a person can envision a desired future event even though he or she judges the actual occurrence of that event to be unlikely. For example, despite judging that her chances of successfully entering the job market are slim, a graduate student can indulge in positive fantasies about being offered the perfect position.

The theory of fantasy realization specifies three ways in which an individual might deal with fantasies about the future and relates these to the individual's readiness to act toward fantasy realization. One results in an expectancy-based readiness to act; the other two create a readiness to act that is unrelated to the person's expectations.

The first way a person might deal with positive fantasies about the future is to contrast them mentally with negative aspects of the impeding reality. This mental contrasting transforms the desired future into a future that needs to be attained and the impeding reality into a reality that needs to be changed. The experienced necessity to act leads to the question of whether the reality can be changed into the fantasy. Thus the person's expectations of successfully attaining his or her fantasies become activated, and they are used to answer this question (Oettingen, in press). If the individual's expectations of success are high, he or she will commit to behavioral goals that serve fantasy fulfillment;

if the individual's expectations of success are low, he or she will refrain from commitment to behavioral goals geared toward fantasy fulfillment.

Second, a person may merely indulge in positive fantasies and disregard the impeding reality. This indulgence in positive fantasies seduces to consummate and consume the envisioned desired events in the mind's eye. Accordingly, the individual experiences no necessity to act, and therefore relevant expectations of success are not activated and used. The readiness to act toward fantasy fulfillment should reflect solely the positive incentive value of the desired events imagined in the individual's fantasies. The individual's commitment to relevant behavioral goals should therefore be moderate and independent of his or her perceived chances of success (i.e., expectations). As a consequence, the level of goal commitment is either too high (when expectations are low) or too low (when expectations are high).

Third, a person may merely dwell on the negative aspects of the impeding reality and thus disregard his or her positive fantasies about the future. The individual experiences no necessity to act, as no fantasies about the future point to the direction in which to act. Again, expectations of success are not activated and used. Commitment to relevant behavioral goals should be based solely on the negative incentive value associated with the negative aspects of the impeding reality. As with indulging in positive fantasies about the future, dwelling on the negative reality should thus lead to a moderate, expectancy-independent level of commitment, which is inadequate in the sense that it is too high (when expectations are low) or too low (when expectations are high).

With respect to the emergence of developmental goals, it is hypothesized that positive fantasies surrounding a pending developmental task (e.g., starting a family) lead to different outcomes depending on how the individual deals with these fantasies. Indulging in positive fantasies about the future and dwelling on the negative aspects of the impeding reality should lead to inadequate goal commitment. People in this category stay passive even when probabilities of success are high and become active even when probabilities of success are low,
people should refrain from respective goal commitments. Both committing oneself in light of high probabilities of success and holding back in committing oneself in light of high probabilities of success and holding back in light of low probabilities of success are functional for

mastering developmental tasks. In the first case, goal attainment with respect to the chosen goal is more or less guaranteed, whereas in the second case goal attainment with respect to alternative goals in the service of other developmental tasks becomes more likely, as one's resources are not wasted on a lost cause. Goal attainment can be attempted more effectively at a later point in time or in a different situational context or else is given up altogether in favor of alternative developmental tasks.

DEVELOPMENTAL TASKS AND THE EMERGENCE OF BEHAVIORAL GOALS

Fantasy realization theory offers not only hypotheses on when and how people set themselves developmental goals, but also a new perspective on the concept of developmental tasks. According to Havighurst (1948/1972), a developmental task "arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks" (p. 2).

Research on developmental tasks has been concerned with identifying critical tasks for the various stages of life-span development (infancy and early childhood, middle childhood, adolescence, early adulthood, middle age, and later maturity), thereby pointing to their biological, psychological, and cultural bases. Moreover, characteristics of developmental tasks such as cultural relativity, recurrent versus nonrecurrent tasks, relations between achievement of earlier and later developmental tasks, and the role of their institutional backups (e.g., family, school, church) have been discussed (Dreher & Dreher, 1985; Dreher & Oerter,1986; Havighurst,1948/1972; Oerter, 1986).

So far, theorizing and research on developmental tasks has apparently focused on structural aspects, such as what kinds of tasks go with which stages of life-span development and what features characterize different developmental tasks. The dynamic question of which psychological processes make people take on pending developmental tasks and commit themselves to respective behavioral goals, thus promoting the mastery of the task, has been neglected. It is still an open question what makes people face up to developmental tasks and form respective behavioral

goals. Fantasy realization theory helps to answer this question and thus adds a dynamic perspective to the analysis of developmental tasks.

A line of experimental research has investigated whether and how various ways of dealing with fantasies about the future facilitate the mastery of developmental tasks of middle childhood, adolescence, and early adulthood (e.g., Oettingen, 1996, in press; Oettingen, Hönig, & Pak, 1999). The developmental tasks chosen for analysis have pertained to the achievement domain (e.g., developing fundamental skills in school, preparing for an occupation), the interpersonal domain (e.g., achieving mature relationships with peers and emotional independence from parents and other adults, finding a partner), and the domain of life management (e.g., starting a family, achieving economic and emotional independence). All of these experiments (save one) have established at least three experimental groups: a fantasy-reality contrast group, a positive fantasy only group, and a negative reality only group. We assessed as dependent variables whether participants had committed themselves to behavioral goals that serve the mastery of the respective developmental tasks and whether they had already evinced respective goal-directed behaviors. The dependent variables were assessed some time after the experiment had taken place (from 7 to 14 days later), as vital goal commitments are assumed to persist over time (Lewin, 1926).

Developmental Fantasies in the Achievement Domain

Fifth graders ages 10 to 12 years participated in the first experimental study on the developmental task of acquiring fundamental skills in school (Oettingen et al., 1999). More specifically, the skill of interest was the acquisition of a second language, as the native German speaking children had just started to learn English in school. We first assessed the children's expectations of succeeding in their new subject by asking them how well they thought they would do in English. Then we established the three experimental groups: the mental contrast group, in which participants had to elaborate positive aspects of the future as well as negative aspects of the impeding reality; the positive fantasy only group, in which participants had to elaborate only positive aspects of the future; and the negative reality only group, in which participants had to elaborate only negative aspects of the impeding reality.

Children in the *mental contrast* group had to name a positive aspect of succeeding in learning English and to elaborate this aspect in free thoughts or images developing in their mind's eyes; children named as-

pects such as "My daddy would be so happy" or "I could talk to the Back Street Boys." Subsequently, the children had to name and mentally elaborate a negative aspect of reality that stands in the way of their succeeding in English. Children named aspects such as "I am distracted by my classmates" or "Sometimes I am too lazy to study." Children in the *positive fantasy only* group, in contrast, had to name and mentally elaborate two positive aspects of succeeding in English, whereas the children in the *negative reality only* group had to name and mentally elaborate two negative aspects of the reality that stand in the way of their succeeding in English. All of these mental elaborations had to be reported in writing.

In order to assess whether participants had formed behavioral goals that serve the task of excelling in English, we asked the children 2 weeks after the experiment how well they had prepared for their English classes (in comparison to other classes and in comparison to their classmates). Moreover, we inquired how much leisure and pleasure they had forgone to do their homework in English.

Children in both the positive fantasy only and the negative reality only groups showed a medium level of study effort and of forgoing leisure that was independent of their expectations of succeeding in English. Not so the children in the mental contrast group: They evinced much study effort and forgoing of leisure when they perceived their chances of success to be high; when they perceived their chances of success to be low, they showed little study effort and little forgoing of leisure. In line with fantasy realization theory, contrasting positive fantasies about the future with negative aspects of the impeding reality turned out to be a prerequisite of high commitment to behavioral goals. With merely indulging in positive fantasies or solely dwelling on the negative reality, high levels of commitment were not observed even when expectations of success were high.

This pattern of data also emerged for the children's actual performance in the form of course grades given by the teachers 2 weeks after the experiment. Then their expectations of success were high, participants who mentally contrasted their positive fantasies with negative aspects of the impeding reality scored almost two course grades higher than those who had only indulged in positive fantasies, and almost one course grade higher than those who had dwelled on the negative reality. When their expectations of success were low, participants in the mental contrast group scored half a grade and one and a half course grades lower than participants in the other two groups.

In other words, when their expectations of success were high, participants in the mental contrast group successfully acted toward fantasy fulfillment-they did very well in English. When their expectations of success were low, participants did not excel in fulfilling their future dreams-they did not do well in English at all. Participants in the fantasy only and reality only groups ranged in the middle. They got fairly good grades, and this was true irrespective of whether they expected to do well or poorly in English.

These findings were recently replicated by Brinkmann, Holder, Hurler, and Schultz-Gambard (1998), who tested young adults who participated in a vocational training program geared to educating social workers. The researchers assessed students' expectations using questions such as how likely it is that they possess the necessary skills to master their profession. Two experimental groups were established: the mental contrast group and the positive fantasy group. Participants in the *mental contrast* group had to first name and elaborate six positive aspects of successfully entering their occupation and then name and elaborate six negative aspects of reality that stand in the way of their realizing this fantasy. Participants mentioned positive aspects such as "financial improvement" and "self-actualization" and negative aspects such as "current economic depression" and "no time for my children." Participants in the *positive fantasy only* group had to name and elaborate only positive aspects of successfully starting their occupation.

Two weeks after the experiment, Brinkmann et al. (1998) asked participants how frequently they had interacted in a constructive way with their colleagues and clients during the past fortnight. Participants in the mental contrast group interacted constructively most often of all participants when their expectations of success were high, and least often when their expectations of success were low. Participants in the positive fantasy group, in contrast, reported a frequency of constructive interactions that ranged in between and was independent of their perceived chances of successfully starting their occupation as a social worker.

The same pattern of results emerged even when the quality of the participants' interactions was rated by external raters blind to the hypotheses. Two weeks after the experiment, participants were also confronted with scenarios depicting typical conflicts between a social worker and his or her clients or colleagues. The participants had to find constructive solutions for these interpersonal conflicts, and these solutions were later examined by the independent raters. The solutions of high-expectancy participants in the mental contrast group were rated

as being more to the point and more constructive than those of all other participants, whereas the solutions of low-expectancy participants in the mental contrast group were rated as least to the point and least constructive. The participants in the positive fantasy only group fared in between, no matter whether they perceived the chances of success as high or low.

In sum, positive fantasies surrounding developmental tasks in the achievement domain-in the cases presented above, acquiring critical academic skills in middle childhood and getting started in one's occupation in young adulthood-serve an important motivational function when they are mentally contrasted with negative aspects of the impeding reality. Only under contrasting conditions do optimistic expectations lead to strong respective goal commitments, whereas pessimistic expectations suppress them. When people indulge in positive fantasies about successfully mastering pending developmental tasks or dwell on negative aspects of the impeding reality, they show medium levels of commitment, no matter whether they perceive their chances of success as high or low. This pattern of results emerged for all dependent variables no matter whether they were assessed through self-reports or external observations. Moreover, the pattern of results held true for both studies, even though there were a number of differences between the two (e.g., the developmental tasks pertained to different stages of life-span development). As convincing as the results of the reported studies are for the achievement domain, we wondered whether developmental fantasies play the same role for critical developmental tasks in the interpersonal domain.

Developmental Fantasies in the Interpersonal Domain

The first experimental study in the interpersonal domain addressed the developmental tasks of achieving mature relationships with peers and emotional independence from parents and other adults (Oettingen et al., 1999). In a sample of university students, each participant was asked to report his or her most important interpersonal issue, no matter whether that issue pertained to a peer, a partner, or a family member, and then to indicate the perceived likelihood of whether that interpersonal issue would have a happy ending. The issues named included, for example, "to get to know better someone I like" and "to get along with my mother." Thereafter, each participant was asked to list positive aspects pertaining to a happy ending of the interpersonal issue. Such positive aspects as "not being lonely anymore" and "being needed" were listed. Finally,

each participant had to list negative aspects of the impeding reality that appeared to stand in the way of a happy ending. The negative aspects listed included "feelings of unattractiveness" and "being insecure."

We established three experimental conditions. In the *mental contrast* group, participants first had to select two of the listed positive and two of the listed negative aspects. To achieve a fantasy-reality contrast, we asked participants to alternate in their mental elaboration between the two positive aspects of a happy ending and the two negative aspects of the impeding reality, beginning with a positive aspect. In the *positive fantasy only* group, participants were asked to elaborate only four positive aspects of a happy ending. In the *negative reality only* group, participants were asked to elaborate only four negative aspects of the present reality.

As a first dependent variable we measured participants' readiness to act right after the experiment by their reports of how energetic and active they felt. Participants who had to contrast their positive fantasies mentally with negative aspects of the impeding reality showed the highest readiness to act, when their expectations were high. When their expectations of success were low, they were the least ready to act. The positive fantasy and the negative reality groups, in contrast, showed a medium readiness to act that was independent of whether their expectations of success were high or low.

The same pattern of data emerged for the second dependent variable, immediacy of relevant action, operationalized as the number of days participants waited before starting to implement their fantasies. Two weeks after the experiment, we asked participants at what point in time they had initiated relevant actions. Participants in the mental contrast group who perceived a happy ending as likely acted almost 8 days earlier than those who merely indulged in positive fantasies, and almost S days earlier than those who solely brooded over the negative reality. In contrast, when they perceived a happy ending as unlikely, participants in the mental contrast group acted at least 3 days later than those in the positive fantasy only and the negative reality only groups.

Feeling energized and acting without delay can be interpreted as indications of strong goal commitment (Gollwitzer & Moskowitz, 1996). Taking the results of both dependent variables together, therefore, indicates that mentally contrasting positive developmental fantasies with the negative aspects of the impeding reality leads to the emergence of binding action goals that serve the achievement of the respective developmental task, given that the chances of mastering the developmental task are perceived as being high. The present study also

allowed us to rule out the possibility that the effects of the contrasting procedure are based on a change in participants' level of expectations. The levels of participants' expectations as assessed before and after the experimental instructions did not differ among the three groups.

We replicated the reported pattern of results in a further experiment that focused on the developmental task of finding a partner (Oettingen, in press). More specifically, participants were confronted with the presumed possibility of getting to know an attractive stranger. Getting to know an attractive person is a topic about which it is easy to stir up fantasies. Attractive individuals are perceived not only as exciting, but also as interpersonally and intellectually competent (Eagly, Ashmore, Makhijani, & Longo, 1991). Moreover, when in the company of attractive people, one can also feel attractive (Geiselman, Haight, & Kimata, 1984).

Fernale college students were told that the study was about thoughts and images of getting to know a stranger. They were then shown a picture of an attractive young man, supposedly a doctoral student working at our laboratory, with the name of Michael S. Participants first had to indicate the subjective likelihood that they would get to know Michael S. if they came across him. Then they had to name positive aspects of getting to know the attractive stranger and negative aspects of the impeding reality. Finally, the three familiar experimental groups were established. As in the previous experiment, participants in the *mental contrast* group alternated in elaborating positive aspects and negative aspects in their mind's eyes, whereas participants in the *positive fantasy only* group had to elaborate only positive aspects of getting to know the attractive stranger and the participants in the *negative reality only* group had to elaborate only negative aspects of the impeding reality.

One week after the experiment, we assessed participants' commitment to act toward getting to know the attractive stranger. First, we asked various questions pertaining to how badly they wanted to get to know the attractive stranger. Second, we more indirectly inquired about participants' commitment to act by asking questions pertaining to how much they would mind if they got to know the attractive stranger only in their thoughts.

Participants who had mentally contrasted their positive fantasies with aspects of the negative reality showed the strongest commitment to act when their expectations of success were high. When their expectations of success were low, participants in the mental contrast group were the least committed. The other two groups again evinced medium levels of commitment, and this independent of their expectations. This pattern of

results was observed for the direct as well as for the more indirect measure of commitment to act.

In sum, mental contrasting is essential for mastering developmental tasks not only in the achievement domain, but also in the interpersonal domain. Even though the two studies reported show a number of differences (the developmental tasks under scrutiny were dissimilar; the dependent variables in the first study included measures of actual behavior, whereas the second study assessed commitment to act through self-reports; participants in the first study named their own interpersonal issues, whereas participants in the second were confronted with the same interpersonal issue presented by the experimenter), the patterns of results were similar. Apparently, positive developmental fantasies are critical for mastering developmental tasks, not only in the achievement domain but also in the interpersonal domain. However, we wondered whether developmental tasks that directly touch issues of life management (e.g., combining work and family life) are similarly affected by people's dealing with their developmental fantasies. People may be especially defensive when it comes to issues of life management, where the feelings of being one's own agent of personal development are particularly strong (Taylor, 1989).

Developmental Fantasies and Life Management

Life management is an area of increasing importance for personality development. This is true especially in the Western, more individualist cultures, where individuals are largely responsible for their own livelihood and well-being, as cultural norms and interpersonal principles regulate people's actions to a lesser and lesser extent (Markus & Kitayama, 1991; Oettingen, 1997a; Triandis, 1995). The first of the two studies on life management pertained to the combining of two seemingly contradictory life domains: professional work and starting a family life (Oettingen, in press). In Germany, where we conducted the study, only 58% of mothers with children under 18 years participate in work life (Statistisches Bundesamt, 1992), and 89% of working mothers report that they often have problems with combining work and family life (Hegner & Lakemann, 1989). The numbers look particularly grim when the percentage of women in German academics is considered. Even though 45% of dissertations are written by female doctoral students, only 5.3% of the associate professorships and 5.7% of the full

professorships are held by women ("Frauenförderung in der MPG," *1995)*.

We therefore conducted the present study with female doctoral students who were on average over *30* years old and had no children yet. Thus they were approaching a critical time with respect to family planning. To establish the three forms of thinking about the future, we used a different paradigm from that in the previously reported experiments. First, all participants were asked to generate positive fantasies about their professional and private lives 10 years from now, to see these images in their mind's eyes, and to report about their streams of thought in writing. Participants who in their positive fantasies mentioned having a professional career and a family had to indicate how hopeful they were that they could successfully combine work and family life for themselves. Then they were confronted with the impeding reality (i.e., the difficulties and problems in combining work and family life). The difficulties and problems were presented in the form of reports supposedly taken from interviews with working mothers. In the *mental contrast* condition, participants had to elaborate on these reports by producing free thoughts and images. This way, the production of positive fantasies about combining work and family life was brought into contrast with mental elaborations on the impeding reality. In the *positive fantasy only* condition, we prevented this contrast experience by having participants downplay the difficulties reported by the working mothers. Participants were told that the interviewed mothers had reported these difficulties in self-defense to hide other underlying personal or professional problems. The participants had to detect and mentally elaborate on these underlying problems. In the *negative reality only* condition, we focused participants exclusively on the difficulties of combining work and family life. They were asked to discover those difficulties and problems alluded to in the mothers' reports that so far had made them refrain from having children.

Two weeks after the experiment, we explored participants' commitment to relevant behavioral goals in both a more direct and a less direct way. Participants had to indicate how much they intended to do in order to combine professional life and a child in their personal future and how hard it would be for them if they never had a child. Although this study used a different procedure to establish the three experimental groups, the pattern of results remained the same. No matter how commitment to behavioral goals was assessed, the highest scores were observed in the mental contrast condition in participants who held high expectations of success, whereas the lowest scores were

observed for participants in the same condition with low expectations of success. Commitment to behavioral goals was at a medium level in the positive fantasy only and the negative reality only groups. This was true for participants with both high and low expectations of success.

The second study in the area of life management referred to the developmental task of achieving assurance of economic and emotional independence (Janetzke, 1999). The study used the reinterpretation paradigm described in the previous experiment. The participating university students (freshmen) were told that the study would be conducted for the purpose of evaluating a new training program called Self-Efficacy Training, or SET. First, participants were shown a leaflet describing SET as a dynamic training program that helps to create self-assurance, independence, calmness, joy, and self-actualization. Then participants were asked for their expectations that they would benefit from participating in a training program such as SET. Thereafter, all participants had to fantasize positively about how their futures would look like if they had successfully participated in SET. Participants fantasized, for instance, about mastering life as a self-confident and assertive lawyer and about succeeding in their university education.

In establishing the three experimental groups, we confronted participants with 12 statements that supposedly came from interviews with persons who already had participated in SET. The statements were complaints about the hardships of SET (e.g., "Sometimes I had to prepare for SET until late in the evening!"). In the *mental contrast* group, participants were asked to free-associate to each of these statements. In this way, mental elaborations about negative aspects of the impeding reality were forced upon participants who beforehand had generated positive fantasies about their lives subsequent to SET. In the *positive fantasy only* group, participants' attention was directed away from the negative reality. We induced participants to trivialize the complaints of the presumed prior participants by suggesting that each of the complaints about the hardships of SET was simply a self-protective excuse for an underlying personal problem. We asked the participants to discover the problems that the excuses were intended to cover up. In the *negative reality only* group, we asked participants to spell out those thoughts and images that had made them refrain from participating in similar training programs in the past. In this way, participants' thoughts were directed away from a positive future after SET and solely linked to negative aspects of the impeding reality.

Two weeks after the experiment, participants were asked whether they would be interested in enrolling in SET. Moreover, they had to indicate how much money they would be willing to pay and how far they would be willing to travel to attend SET. Finally, we wanted to know if participants would be willing to forgo invitations to interesting parties or getting together with friends in order to attend. For all of these measures, we observed the familiar pattern of results. Participants in the mental contrast condition reported the strongest willingness to exert behaviors in favor of attending SET when their expectations of success were high, and they reported the weakest willingness when their expectations of success were low. Commitment to relevant behavioral goals, however, was at a medium level in the positive fantasy only and the negative reality only groups, irrespective of whether participants' expectations were high or low.

In sum, positive fantasies about the future lead to the adoption of binding behavioral goals also in developmental tasks pertaining to life management, given that the fantasies are mentally contrasted with negative aspects of the impeding reality and that chances of success are perceived as promising. This pattern of results held true for both developmental tasks investigated (i.e., combining work and family life as well as gaining and keeping financial and emotional independence), no matter how commitment to relevant behavioral goals was measured.

THEORETICAL AND APPLIED IMPLICATIONS

Research on developmental tasks has so far neglected the psychological processes that underlie getting started with task achievement. The present theorizing and the results of the reported research suggest that the achievement of developmental tasks begins with commitment to behavioral goals. The emergence of behavioral goals requires that people mentally contrast their fantasies of achieving pending developmental tasks with the impeding reality. When an individual's expectations of success are high, strong goal commitments can be expected that will in turn guide that person's behaviors. Strong goal commitments cannot develop on the basis of a person's indulging in positive future fantasies or dwelling on the impeding reality. If anything, a medium level of commitment originates that keeps a person's fantasies or ruminations alive.

In the experiments discussed above, the focus was on fantasies about a positive future that are mentally contrasted with negative aspects of the impeding reality and thus on the emergence of approach goals. One

wonders whether the observed processes of goal emergence apply analogously to the emergence of avoidance goals. In respective experiments, fantasies about a negative future (i.e., aspects of having failed on a pending developmental task) would have to be contrasted mentally with positive aspects of the impeding reality (i.e., aspects that might prevent failure on the pending developmental task). For example, a person who is plagued by negative fantasies about failing at the]ob market would have to contrast these negative fantasies mentally with thoughts about her strong educational background. Given that the person's expectations to avoid the negative future (i.e., failure at the]ob market) are high, mental elaborations on both the negative future and the positive reality should create binding avoidance goals.

Expectancy Effects on Behavior

An ever-increasing body of research demonstrates that people's subjective expectations about their future predict their behavior and performance (Bandura, 1997; Scheier & Carver, 1992; Seligman, 1991; Taylor & Brown, 1988). Irrespective of whether expectations are operationalized as efficacy expectations (i.e., expectations of whether one can perform a certain behavior necessary for a desired outcome; Bandura, 1977), outcome expectations (i.e., expectations of whether a certain behavior will lead to the desired outcome; Bandura, 1977), or generalized expectations (i.e., expectations of whether a certain outcome will occur; Heckhausen, 1991; Oettingen, 1996), optimistic expectations promote persistence, effort, and successful performance in various life domains. Further, expecting a positive future in general (as measured by the Life Orientation Test; Scheier & Carver, 1987) is associated with positive outcomes such as in the health domain with physical recovery in coronary heart patients (Scheier & Carver, 1992) and psychological recovery in women suffering from postpartum depression (Carver & Gaines, 1987). In the achievement domain, efficacy and outcome expectations regarding future success in mathematics predict both the willingness to enroll in mathematics courses and the actual success measured by course grades (Lent, Lopez, & Bieschke, 1993). And in the interpersonal domain, optimistic expectations about finding a romantic partner have been shown to promote actual success (Oettingen, 1998).

The positive relation between expectations and performance is based on a number of cognitive, motivational, and affective processes that foster performance. For instance, people with high self-efficacy expecta-

tions are known to apply analytic strategies more effectively (Wood & Bandura, *1989),* to adopt more challenging goals (Bandura & Cervone, *1983)* as well as fewer distal goals (Bandura & Schunk, *1981),* to be more successful in selecting and pursuing rewarding career paths (Betz & Hackett, *1983),* and to show less physiological arousal during problem-solving tasks (Bandura, Cioffi, Taylor, & Brouillard, *1988)* than people with low self-efficacy expectations.

It is not only these mediational processes that account for the positive relation between expectations and performance, but also the fact that expectations reflect a person's past. There are four principal sources of information that are relevant for appraising an individual's expectations. Next to vicarious experiences, verbal persuasion, and relevant physiological and affective states, people in particular base their performance-related expectations on their achieved performances and experienced outcomes of the past (Bandura, *1986, 1997).* Accordingly, expectations reflect a person's past behavior, which should also boost the expectancy-behavior link, as past behavior predicts future behavior through multiple processes (e.g., habits or intentions; for summaries, see Ouelette & Wood, *1998;* Triandis, *1977, 1980).*

Even though demonstrating the expectancy-behavior relation and explaining its mediational processes has received much scientific interest in recent years, questions of when expectations fail to exert their influence on behavior have received less attention. This is surprising in light of the fact that the search for moderators of expectancy effects on cognitive variables has a strong tradition. For example, Stangor and McMillan *(1992)* have reviewed 54 experiments on the memorability of information that is either consistent or inconsistent with expectations, trying to distill relevant moderator variables.

The research presented here suggests a powerful moderator variable of expectancy effects on behavior. Whether expectations will translate into behavior depends on the person's mode of thinking about the desired future. Merely indulging in fantasies about a desired future or solely dwelling on the impeding reality will rob expectations of their action-guiding function. The individual does not experience a necessity to act and thus expectations do not become activated and used. A necessity to act is experienced, however, when positive fantasies about a desired future are mentally contrasted with negative aspects of the impeding reality. When they perceive their probabilities of success to be high, contrasting individuals set out to actualize their desired futures;

when they see their probabilities of success as low, they start to disengage from fantasy realization.

The Optimism Versus Realism Debate

There are two opposing sides in the recent debate on whether illusory positive thinking about the future fosters or defeats successful personality development. Experimentally oriented social psychologists (Taylor & Brown, 1988, 1994) suggest that a positive view of the self and the world, even if illusory, is a clear asset, whereas personality psychologists (Colvin & Block, 1994) often favor a realistic view of the self and the world. So far, methodological arguments focusing on how illusory optimism and its consequences are correctly assessed have dominated the controversy (Asendorpf & Ostendorf, 1998; Colvin & Block, 1994; Colvin, Block, & Funder, 1995; Shedler, Mayman, & Manis, 1993).

The present theorizing and experimental evidence suggest a conceptual solution to this debate. One needs to differentiate two forms of thinking about the future: expectancy judgments and free fantasies (Oettingen, 1996, in press). The proponents of the realism position could advance more persuasive arguments if, instead of questioning the validity and reliability of the findings reported in the illusory optimism literature, they pointed to the irrational behavior that results from indulging in positive fantasies (i.e., too much investment in light of low, and too little investment in light of high, probabilities of success).

The proponents of the illusory optimism position, on the other hand, could offer more consistent evidence if they recognized that expectancy effects on behavior are affected by moderator variables. The desired future has to be contrasted mentally with the impeding reality for expectancy effects on behavior to occur. If an individual only indulges in fantasies of the desired future or only dwells on the impeding reality, the potentially beneficial effects of optimistic expectations are wasted.

Dreaming Your Life Away

If a person indulges in positive fantasies about the mastery of a developmental task, relevant expectations of success do not affect his or her respective actions. As expectations reflect a person's experience and thus the context in which he or she is embedded, indulging in positive fantasies disconnects the person from that context and thereby from the biological, cultural, and nonnormative influences that are sup-

posed to determine growth across the life span (Baltes, Lindenberger, & Staudinger, *1998;* Havighurst, *1948/1972).* This has important consequences for successful personality development.

A prototypical example of ignoring expectations that are based on biological influences is a person of middle age who fails to adjust her professional and personal activities to her expectations of decreasing physical and mental strengths. Indulging in positive fantasies of keeping the stamina of a youngster hinders her searching for means to optimize her remaining resources (e.g., to develop effective mnemonic strategies) or to compensate for failing resources (e.g., to delegate responsibilities to coworkers, to lecture with the help of a microphone). This is because indulging in positive fantasies prevents both the disengagement from the idea of possessing the old stamina (despite low expectations) and the commitment to optimization and compensation goals (Baltes & Baltes, *1990),* even though in the latter case expectations for goal attainment are high. Accordingly, indulging in positive fantasies hampers the individual's mastery of the developmental task of "adjusting to the physiological changes of middle age" (Havighurst, *1948/1972).* The same should be true for dwelling on negative aspects of the impeding reality (e.g., decreasing physical strengths), as such ruminations also promote the disregard of expectations.

Second, ignoring expectations determined by sociocultural factors can also be problematic for personality development. For example, a person socialized in a sociocultural context that affirms values of large power distance (i.e., a large power differential is readily accepted by the people of the culture; Hofstede, *1991)* who fantasizes about attaining personal freedom of action will not activate and use respective expectations. Accordingly, he will halfheartedly commit himself to attaining freedom of action despite low chances of success and fall to disengage from the idea of reaching full discretion. Disengagement, however, would be prerequisite to a reorientation (e.g., emigration or retreat to more liberal niches of the culture). This person will stay in his sociocultural context and will thus fall to achieve the developmental task of "taking on civic and social responsibility" (Havighurst, *1948/1972).* Again, analogous consequences are to be expected for people who keep dwelling on the negative aspects of the cultures in which they are embedded.

Third, ignoring expectations that are determined by individual, *nonnormative* factors might also hurt personality development. A young adult who, for example, indulges in fantasies about becoming a violin

soloist will fail to consider her low expectations of success based on the fact that she has not played the violin from earliest childhood on and thus lacks the expertise to become a star. By still pursuing a career as a violin soloist (albeit halfheartedly), she will forgo opportunities to commit herself to behavioral goals in the service of entering more mundane occupations (e.g., as a music teacher). She might recognize too late that the chances to prepare for other occupations are lost and that she has failed the developmental task of successfully "getting started in an occupation" (Havighurst, 1948/1972).

But indulging in dreams about illustrious professions (and dwelling on the impeding reality) should also hurt those individuals who do possess the necessary education and talent, because they do not commit themselves to respective behavioral goals to the degree that is suggested by their high expectations of success. Clearly, this line of thought also applies to high expectations based on biological and social-cultural factors.

Ignorance of expectations caused by indulging in positive fantasies about the future or by dwelling on the negative reality, however, does not have to hamper successful personality development under all circumstances. There seem to be developmental tasks that benefit from individuals' ignoring probabilities of success. Such developmental tasks are characterized by hopelessness in the sense that they can be neither mastered nor given up-for example, when a person is told that he suffers from a terminal disease. In this detrimental situation, mental contrasting of positive fantasies (e.g., living through the next summer, travelling abroad) with negative aspects of the impeding reality (e.g., increasing frailty, chronic pain) will only focus the person on the bleak prognosis. Activating and using this prognosis for making behavioral decisions would lead to the individual's giving up life. Indulging in positive fantasies, in contrast, should allow him to continue life and to develop his remaining resources (Taylor, 1989).

Educational Implications

In his analysis of developmental tasks, Havighurst (1948/1972) also discusses educational issues: What are the responsibilities of general education for assisting people in accomplishing one or the other developmental task? How are these responsibilities met? How can the educational system improve in helping with such tasks? The answers Havighurst offers to these questions relate to aiding people in their acquisition of relevant knowledge, values, and attitudes as well as provi-

ding the necessary opportunities for such learning to occur. The theorizing and research presented above suggest in addition that people have a better chance to succeed at pending developmental tasks if they are taught to contrast their developmental fantasies mentally with the impeding reality. When their expectations of success are high, people's willingness to commit themselves to relevant behavioral goals is increased. As a consequence, they may more readily accomplish pending developmental tasks.

But offering mental contrasting as a self-regulatory tool does not suffice for people who entertain low expectations of realizing their developmental fantasies. Educators have to bear in mind that the mental contrasting of developmental fantasies will lead to disengagement from the respective developmental tasks when expectations of success are low. Therefore, whenever educators suggest the mental contrasting procedure as a selfregulatory tool, they first have to make sure that the person's relevant expectations of success are high. If this is not the case, they need to work to strengthen those expectations beforehand. Bandura (1997) lists a number of very powerful interventions that have been shown to increase a person's expectations of success (e.g., pointing to successful models or to relevant strengths, but also providing relevant knowledge and teaching necessary skills).

Finally, the many interventions and training programs geared toward promoting expectations of success (Hackett,1995; Schunk,1989; Schwarzer, 1992; for a summary, see Bandura, 1997) have to be taken with a grain of salt, as this educational strategy seems incomplete. Elevating a person's expectations of success leads to strong goal commitments only if the person mentally contrasts his or her desired future with the impeding reality. If the individual only indulges in the positive future or dwells on the impeding reality, the painfully achieved strengthening of expectations is wasted-no matter whether it was acquired through an increase in knowledge and skills, through the observation of effective models, or through persuasive efforts of therapists, parents, friends, teachers, or the individual him or herself.

SUMMARY AND CONCLUSION

Modern theorizing on goals emphasizes the analysis of goal implementation and thereby neglects the analysis of conditions and processes that stimulate the setting of goals. In this chapter I have presented a theory of

fantasy realization that attempts to ameliorate this neglect. I have suggested that both indulging in positive fantasies about the future and dwelling on negative aspects of the impeding reality hinder the formation of strong goal commitments. People need to contrast mentally their positive fantasies about the future with negative aspects of the impeding reality to experience a necessity to act, which in turn leads to the formation of binding behavioral goals when expectations of success are high.

Experimental research on the mastery of developmental tasks across the life span supports these hypotheses. No matter whether fantasies related to developmental tasks of childhood, adolescence, or young adulthood were analyzed, and no matter whether these tasks belonged to the achievement domain, the interpersonal domain, or the realm of life management, the pattern of results always turned out to be the same: For participants who held high expectations of success, contrasting positive developmental fantasies with negative aspects of the impeding reality led to strong commitments to behavioral goals in the service of achieving the developmental tasks in question. In contrast, both indulging in positive future fantasies and dwelling on the negative reality failed to create strong goal commitments, even when expectations of success were high.

The theoretical implications of these findings pertain to expectancy effects on behavior. I have argued that expectancy effects on behavior are not as pervasive as assumed in the relevant literature. For expectancy effects to occur, people need to give up on indulging in positive fantasies or dwelling on the negative reality and instead engage in mentally contrasting their positive fantasies with negative aspects of the impeding reality. Furthermore, fantasy realization theory offers a conceptual solution to the optimism versus realism debate, as it distinguishes between two forms of thinking about the future: expectancy judgments and free fantasies.

With respect to the applied implications, I have provided examples of how indulging in positive fantasies and dwelling on the negative reality hinder successful personality development. People turn blind to their expectations of success and thereby become disconnected from the biological, sociocultural, and individual (nonnormative) factors influencing personal growth. Finally, I have pointed out that the common educational interventions geared toward promoting the mastery of developmental tasks are incomplete, as they predominantly focus on strengthening relevant expectations. Complementing these interventions, educators should encourage people to contrast their developmental fantasies mentally with aspects of the impeding reality in order to ensure that they commit themselves to relevant behavioral

goals and thus actively approach the mastery of pending developmental tasks.

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