

HANDBOOK *of*
Imagination and
Mental Simulation

Edited by

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25 Possible Selves: From Content to Process

Daphna Oyserman and Leah James

INTRODUCTION

Possible selves are visions of the self in a future state; like guideposts, possible selves can orient current choices and behavior. Envisioning ones' future "healthy self," the self who can take the stairs without becoming breathless, or ones' future "unhealthy, smoking self," the self who can no longer do so, can make current choices—refraining from buying a new package of cigarettes, or going to the gym—feel meaningful rather than simply painful. Yet, people do not always act in ways that enhance their chances of attaining their positive and avoiding their negative possible selves. They push the button and wait for the elevator instead of taking the stairs and do not pass on the second dessert or third roll. Why not?

We suggest three factors that may increase the likelihood of discrepancies between possible selves and self-regulatory behaviors: (mis)match, (no) gap, and (mis)interpretation of subjective experience. Discrepancies may arise when there is a mismatch between possible selves and what is cued or made accessible and salient in social context, when no gap is perceived between current effort and what is needed to attain the possible self, and when subjective affective experience (e.g., difficulty) is interpreted as meaning that the possible self is too hard to attain or that enough effort has already been expended. Conversely, self-regulatory behaviors are cued when possible selves match or feel congruent with other aspects of self-concept, when relevant gaps—between one's current situation and future goal and between one's current level of effort and the effort required to attain this goal—are salient and when subjective experience is interpreted to mean that effort is needed (e.g., "This is hard work. . . . This goal must be really important to me"). To make the case for this model, we synthesize a possible self-approach with other self-regulation and motivation perspectives to suggest how and when possible selves are likely to be effective self-regulators.

POSSIBLE SELVES: A WORKING DEFINITION

Possible selves are the future-oriented aspects of self-concept, the positive and negative selves that one expects to become or hopes to avoid becoming (Markus & Nurius, 1986). They are the desired and feared images of the self already in a future state—the "clever" self who passed the algebra test, the "unhealthy" self who failed to lose weight or quit smoking, and the "off-track" self who became pregnant (Oyserman & Markus, 1990a, 1990b; see also Perunovic & Wilson, Chapter 23, this volume). Individuals possess multiple positive and negative possible selves. These possible selves are often linked with differing social roles and identities, so that possible selves are likely to develop in domains relevant to current life tasks such as being a student, a parent, or a life partner (Cross & Markus, 1994). Possible selves also differ along a continuum of detail; some possible selves are filled with vivid detail of how, when, and in what way the possible self will be attained and what it will feel like to be that self in the future. Other possible selves are much simpler. Possible self content and linkage with current action strategies have implications for behavior in the present. A "college student" possible self may cue current effort to the extent that current schoolwork is perceived to be connected with attaining a positive college student possible self and avoiding a feared "failed college student" possible self of not

going to college or not getting into one's first-pick college. The possible self can work effectively to regulate current behavior focused on school or other college preparatory activities, even if which college or what major or how it would feel to be a college student are not articulated.

CONTENT OF POSSIBLE SELVES

Much of the research on possible selves has focused on the content of possible selves rather than on testing the motivational consequences of possible selves (for reviews, see Hoyle & Sherrill, 2006; Oyserman & Fryberg, 2006). Differences in measurement techniques reduce our ability to generalize about likely content or detail of possible selves (Hoyle & Sherrill, 2006; for a summary of existing measures with adolescents, see Oyserman & Fryberg, 2006). However, some outlines of content of possible selves emerge across studies. Importantly, it seems that possible self content typically reflects developmentally and contextually salient projects and challenges (Oyserman & Fryberg, 2006; Oyserman & Markus, 1990a, 1990b; Oyserman, Terry, & Bybee, 2002; see also Klinger, Chapter 15, this volume).

For example, a number of studies with middle-class young adults suggested that their possible selves are focused on occupational and interpersonal issues such as getting married, and that family and parenting possible selves become more important in middle adult years (Cross & Markus, 1991; Hooker, Fiese, Jenkins, Morfei, & Schwagler, 1996; Strauss & Goldberg, 1999). Although little research has focused on low-income adults, one study suggested that securing employment and caring for and providing for children were pervasive themes of the possible selves of mothers receiving welfare or transitioning to work (Lee & Oyserman, in press), and a study with imprisoned fathers suggested that becoming like their own fathers is a common feared possible self for these men (Meek, 2007). As adults age, the centrality of job-focused possible selves recedes (Cross & Markus, 1991), and physical health-related possible selves become more prominent (Frazier, Hooker, Johnson, & Kaus, 2000; Hooker & Kaus, 1994). During adolescence, education and future occupations are among the most common foci of young teens' possible selves (Knox, Funk, Elliott, & Bush, 2000; Shepard & Marshall, 1999). These possible selves are equally common among low-income and minority early teens (Oyserman, Bybee, Terry, & Hart-Johnson, 2004), as are, to a lesser degree, fears about becoming off-track and possible selves focused on peer relations (Oyserman, Johnson, & Bybee, 2007).

IMAGINING POSSIBLE SELVES

As future states, all possible selves involve some change from the present, but how possible selves are imagined differs among individuals and contexts in critical ways. Of particular importance are differences in detail and link to strategies, perceived likelihood or certainty of attainment, valence, and temporal distance (how far in the future the imagined self is located). The implications of these differences are summarized in this section.

Detail and Link to Strategies

Some possible selves include concrete strategies for how to achieve them, whereas others do not. When possible selves do not feel connected to other aspects of self-concept, and are not linked with strategies, they are less likely to trigger self-regulatory action. Failing to work toward a future that one does not see as linked to important self-concept features, a future that one can hardly imagine anyway, is unlikely to feel devastating. Similarly, even a vividly detailed possible self is unlikely to produce self-regulation if the action to be taken to attain it is not clear.

Perceived Likelihood or Certainty of Attainment

Some possible selves feel comfortably certain, the selves one will become if nothing much changes from the way things are now. Other possible selves are "within one's grasp," yet uncertain enough to

instill a sense of urgency in action. These less-certain possible selves are the selves one can expect to attain or to avoid becoming if one invests reasonable effort and energy. Still other possible selves are quite remote in their likelihood; these are the "long-shot" possible selves, ones so unlikely that action feels pointless. Having these possible selves may make for pleasant dreams or sleepless nights, but these possible selves are unlikely to change behavior unless, for whatever reason, the perceived likelihood of their potential reality increases beyond some minimal threshold. Thus, the motivational value of possible selves may have an inverted U-shaped function, low when expectancy of attainment is either too high or too low to warrant additional effort.

Valence

Possible selves may be positive (selves one expects, believes one can, or hopes to become) or negative (selves one expects or wants to avoid becoming or fears becoming). Whether a possible self-image is positive or negative has consequences for the likely impact of the possible self on mood and motivation. Feared possible selves focus attention on what one would be like if things went wrong. Feared possible selves could be focused on small bumps in life's pathway or on larger roadblocks resulting in failure to attain significant milestones. Some of these feared possible selves are likely to be experienced, even repeatedly, but over time efforts to avoid the bumps in the road may reduce one's likelihood of experiencing blocked milestones. For example, a graduate student may have a feared possible self in which all her manuscripts have been rejected from the journal of her choice, as well as a feared possible self in which she fails to get tenure. Working with added vigilance to make sure that her studies are well done, her write-ups clear, and her choice of target journals reasonable should minimize the chance that everything she writes is rejected (although some papers may very well require multiple submissions). Moreover, the more effort she expends on ensuring that the always-rejected possible self does not materialize, the less likely it is that the "denied tenure" possible self will come to be.

Temporal Distance

As is clear in the example, possible selves also differ with regard to temporal distance from the present. While all possible selves focus on the future, the distance between the present and the future can be near or far. Time units can be marked vaguely (e.g., "when I am an adult and on my own") or clearly (e.g., "next September" or "next semester"). Time can be marked by meaning unit ("by the time I have to buy another swimsuit," "by the time I retire") or by date ("by Valentine's Day"). How time is marked is likely to influence how vividly this future is imagined or whether the future is imagined at all. For example, soldiers, prisoners, and high school students may mark time until the future begins (after discharge, once parole begins, after graduation) such that the present is experienced as separate from the future, and the future feels distal, vague, and open. Conversely, the present can be seen as setting the groundwork for what will become possible in the future, such as getting training that can be used after military service to enhance one's appeal to employers or taking advanced placement classes to increase the likelihood of college acceptance. We examine the implications of each of these variables for the self-regulatory effectiveness of possible selves.

FUNCTIONS OF POSSIBLE SELVES

The notion that future images could have motivational force is not new; for example, almost half a century ago, Miller, Galanter, and Pribram (1960) made reference to images of the future and plans for their attainment. They proposed that behavior is cued by experience of discrepancy between one's current and planned outcomes, and that plans for attainment can be automatically enacted when discrepancy is cued. Indeed, the importance of temporal focus on motivation, the idea that self-concept contains temporal components, and the hypothesis that current self-regulation is linked

with future goals is deeply rooted in psychological formulations of self-concept since William James (1890). Currently, these future images have become known as possible selves, personal projects, and personal strivings (for reviews, see Markus & Wurf, 1987; Oyserman, 2001).

WELL-BEING

A number of authors have argued that making salient one's most successful future or possible selves improves well-being (e.g., King, 2001). Simply by serving as a reminder of the malleability of the self (e.g., "I may not be doing well in school this year, but I will next year"), positive possible selves can promote current well-being and optimism about the future (Cross & Markus, 1994; Markus & Wurf, 1987). Possible selves can facilitate optimism and belief that change is possible because they provide a sense that the current self is mutable (Markus & Nurius, 1986; see also Klein & Zajac, Chapter 21, this volume). Thus, goals or possible selves may simply make us feel good about ourselves, particularly if the goal or future self is vague and carries no specified action plan (Gonzales, Burgess, & Mobilio, 2001). Indeed, at least in Western culture, a dominant self-goal is simply to feel good about the self—to self-enhance (Brown, 1998). By allowing one to feel good about the self and providing hope for a better future, possible selves may fulfill self-enhancement goals. For example, a student may say to herself, "I may not be doing well in school now, but I'm sure I'll do better next year," in this way buffering self-esteem from current bad grades, although not engaging in any behavioral strategies to actually increase the chance of earning better grades in the coming year.

Supporting this notion, Gonzales and colleagues (2001) found that articulating a goal elevated mood, improved well-being, and created a sense of optimism about the likelihood of attaining the goal for participants, compared with participants who did not articulate a goal (see also Faude, Wuerz, & Gollwitzer, Chapter 5, this volume). Self-enhancing possible selves promote positive feelings and maintain a sense of optimism and hope for the future without evoking behavioral strategies. For example, simply having a New Year's resolution that one will turn over a new leaf, live healthfully, and lose weight may be so satisfying that it can serve as sufficient reason to have an extra slice of cake on New Year's Eve (see also Fishbach, Dhar, & Zhang 2006; Perunovic & Wilson, Chapter 23, this volume). But, setting goals can also improve performance under certain circumstances (e.g., Brickman & Bulman, 1977; Taylor, Neter, & Wayment, 1995). For example, the more self-directed goals are linked to specific strategies, the more likely they are to be carried out (Faude et al., Chapter 5, this volume; Gollwitzer, 1996; Oettingen & Kappes, Chapter 26, this volume).

SELF-REGULATION

Possible selves are not just about feeling good; they can also serve to promote self-regulation. That is, they can produce current behavior in pursuit of becoming like one's positive future selves and avoiding becoming like one's negative future selves. As noted, possible selves are more likely to be effective in this self-regulatory function when they provide concrete and detailed future images linked with strategies that connect current behaviors to future states and when they do not feel contradictory to important social identities (e.g., "I may not be doing well in school this year, but to make sure I do better next year, I have signed up for summer tutoring. Doing well in school is important for me as an African American").

Thus, possible selves can serve two important self-functions, promoting well-being (Gonzales et al., 2001) and invigorating self-improvement efforts (Brickman & Bulman, 1977; Taylor et al., 1995). The self-enhancement and self-improvement functions of possible selves are separate but not necessarily orthogonal. Depending on how self-enhancement and self-improvement successes and failures are interpreted, focus on self-improvement can complement or compete with focus on self-enhancement. Thus, for example, taking action to attain a possible self can serve both self-improvement and self-enhancement functions if that effort results in increased optimism about one's future and increased optimism bolsters effort (Oettingen & Kappes, Chapter 26, this volume).

However, the reverse can also happen when action taken to attain a goal increases optimism and thereby serves to distract attention from ongoing effort. In this chapter, we focus particularly on the self-improvement function of possible selves by asking when possible selves will be effective self-regulators.

WHAT MAKES POSSIBLE SELVES EFFECTIVE SELF-REGULATORS?

Possible selves are not always effective self-regulators. A number of factors are likely to increase the effectiveness of possible selves in regulating behavior. These can be organized loosely as pertaining to context, features of possible selves, and interpretation of subjective experience such as mood or feelings of ease or difficulty. Thus, possible selves are unlikely to regulate behavior if the future does not feel salient, the present does not feel linked to the future, or one does not believe one's actions have any impact on the future and if discrepancies between one's current and future selves are not salient and accessible. Moreover, action to work on possible selves is less likely when possible selves are perceived as irrelevant to or conflicting with other important components of self-concept, including gendered racial-ethnic or national identities and when the subjective experience of working on a possible self is interpreted to mean either that the possible self is not attainable or that sufficient effort has already been put forth. In this section, we discuss each of these components in detail.

LINKING THE PRESENT TO THE FUTURE

When engaged in safe occupations, and living in healthy countries, men are much more apt to be frugal, than in unhealthy, or hazardous occupations, and in climates pernicious to human life. Sailors and soldiers are prodigals. In the West Indies, New Orleans, the East Indies, the expenditure of the inhabitants is profuse. The same people, coming to reside in the healthy parts of Europe, and not getting into the vortex of extravagant fashion, live economically. War and pestilence have always waste and luxury, among the other evils that follow in their train. (Rae 1834/1905, p. 57, taken from Shane, Loewenstein, & O'Donoghue, 2002, p. 353)

As can be seen in this quotation, in hazardous contexts in which present risk is salient and the future is uncertain and distant, people live their lives quite differently than they do when the future feels more predictable and controllable. According to Shane et al. (2002), the idea that choices made about the future may differ from those that are made about the present has been established as a topic within the social sciences, especially sociology and economics, since 1834, with John Rae's publication of *The Sociological Theory of Capital*. Rae (1834/1905) suggested that accumulating (rather than spending now) is limited by uncertainty about the future and by the immediate pleasures of spending and is therefore a function of self-restraint and of the desire to provide the benefits of one's savings to others (e.g., close others, family and kin). In this sense, life is lived in the moment, with one eye on the past and the other on the future. That is, present action can be thought of in terms of current hedonic potential, continuity or discontinuity with the past, or likely consequences of current action for the future (Simons, Vansteenkiste, Lens, & Lacante, 2004). Current and future consequences may be congruent but often are not. Eating ice cream is tasty now and may be a nostalgic reminder of other happy ice cream events from one's past, but eating ice cream now may also result in undesirable weight gain later. As temporal orientation shifts, so does the felt salience of the future. When the present is salient, focus is likely to be on current consequences of action, including both hedonic potential (pleasant taste, satisfaction) and meaning imbued by links with the past ("Eating a banana split reminds me of the summers I spent with my grandmother!"); e.g., Boyd & Zimbardo 2005; Zimbardo & Boyd, 1999).

Conversely, when the future is salient, discrepancies between one's current state or current pathway and one's intended goals are likely to be cued. The ice cream may no longer look so good when conceptualized as a step away from one's positive "ideal weight" possible self or as a step

toward one's negative "heavy weight" possible self. When the future feels real, it looms large in the sense that it grabs attention and resources. When the future is salient, current hedonic potential and links to the past should be less consequential for behavior choice than making progress toward one's future goals.

Belief in the self-relevant impact of present behavior on attainment of future goals has been studied from a variety of perspectives within psychology and education. For example, a number of independent research programs documented a positive association between salience of the future and increased positive outcomes, including higher belief in the importance of education (Brown & Jones, 2004; Cretin, Lens, & Simons, 2001) and better grades (Boyd & Zimbardo, 2005). Some research also showed an association between future orientation and decreased risky behavior, including driving after drinking alcohol (Boyd & Zimbardo, 2005).

Within the possible self framework, it is clear that the belief that present action matters for one's future can itself be positively motivating. The routines of daily life are predicated on this belief. Consider the routines of doing well in school and the repetitious, not particularly hedonically pleasing steps required. The aspiring good student must repeatedly go to bed before he or she would prefer, get out of bed and go to school at an early hour, and sit still and face the teacher when chatting with one's friends is far more tempting. After school, the aspiring good student must do homework, study and get help as needed, even when the homework is hard, long and tedious, the teacher is boring, and the subject matter is dry. School and homework are to be attended to even when the alternatives are more hedonically pleasing in the moment.

Such self-denial, self-sacrifice, and continued effort on difficult or boring tasks in the present make intuitive sense when linked to belief in future attainment of self-relevant goals but not otherwise. By connecting current study with good grades and, farther down the road, with a career or the kind of job that allows for pleasure and self-fulfillment, today's sacrifices make sense. In other words, future relevance can add utility to present-day activities (Simons et al., 2004).

SALIENCE OF FUTURE GOALS

The question follows of how best to make the future feel relevant. The salience of future goals clearly varies between persons, but also between contexts and settings. Such differences may be grounded in cultural syndromes, particularly variation in the belief that one's actions in the present influence the course of one's future, and that luck and contextual factors outside of one's control play important roles in attaining successes and avoiding failures (Chandler, Shama, Wolf, & Planchard, 1981).

For some, in some settings, the future feels tangible—proximal, certain, and in one's control, at least to some extent. For others, at least in some settings, the future is more likely to feel distal, uncertain and unpredictable. In other cases, the future can feel unknowable, in the hands of others, or based on chance. In the extreme, these beliefs make behavior focused on long-term consequences seem irrational.

OBSERVING A GAP BETWEEN CURRENT AND FUTURE SELVES

Even when the future is salient, attempts to shift motivation by cuing possible selves will only work when there is an observable gap between current and future selves. Sometimes possible selves do not differ much from current selves, making increased effort feel unnecessary—in this case, cuing these selves has little effect on self-regulation. For example, Hoyle and Sherrill (2006) primed hoped-for and feared possible selves by asking healthy college students to write about their positive healthy possible selves as well as their negative unhealthy possible selves. Afterward, all students were given a chance to work with a personal trainer and to choose from various health brochures. Compared to control group students who did not write about possible selves, students in the feared possible self condition were more likely to choose the trainer and to choose more brochures. No effect was found among the students in the hoped-for possible selves condition. The

authors proposed that the students were healthy already, so that priming a healthy possible self did not prime a discrepancy with one's current self.

To the extent that the future feels like a seamless flow from the present, the gap between present and future may not be salient, reducing goal-focused effort. Only when bringing to mind positive or negative future selves makes salient the comparison (and discrepancy) between current and potential future selves is it likely that motivation to work toward the goal will increase (Carver, 2001). Building on earlier feedback models (e.g., Miller et al., 1960) and earlier Expectancy \times Value models (such as early work by Lewin, Dembo, Festinger, & Sears, 1944), Carver and Scheier (1982) outlined how discrepancy reduction processes may work in their control theory. They postulated the existence of a negative-feedback loop that acts to reduce deviations from a desired state and so regulates behavior. If the system senses a discrepancy between the current state and a desired reference point, it dictates that a behavior be performed to reduce this discrepancy. The resulting state is then recompared to the reference point to determine if the dictated behavior has succeeded in reducing the discrepancy—if not, the system incites a new behavior. Of course, if there is no detectable discrepancy, the system fails to produce a behavioral output.

Thus, for healthy, middle-class individuals, thinking about feared possible selves of being unhealthy might be more likely to cue discrepancies than thinking about healthy possible selves. However, Hoyle and Sherrill's (2006) study should not be interpreted to mean that feared possible selves always have greater motivational force than positive, expected, or hoped-for possible selves. Rather, that cuing a possible self that feels discrepant with one's present self may generally be beneficial for motivational focus. Because self-concept content tends to be predominantly positive, for positive possible selves to result in self-regulatory action, care must be taken to cue discrepancy between current and future selves. As described in the section on "balance," one way to do that is for positive possible selves to be coupled with "balanced" feared possible selves in the same domain (e.g., Oyserman & Markus, 1990a, 1990b). A balanced perspective implies that positive goals alone are not enough to sustain motivation, and that to provide reminders of what one has to lose, one's feared possible selves are also needed. This perspective is congruent with Kahneman and Tversky's (1979) prospect theory. Kahneman and Tversky noted that losses loom psychologically larger than gains so that, all things being equal, individuals should be more motivated to avoid losses than to attain gains of similar sizes, and situations in which losses are possible should be more eye-catching than situations in which gains are possible.

ATTAINABILITY, CONTROL BELIEFS, AND EFFORT

We have proposed that the motivational value of possible selves may have an inverted U-shaped function. That is, individuals are unlikely to engage in self-regulatory behavior when certainty of attaining possible self goals or of controlling future outcomes is either too low—prompting the feeling that future goals cannot be attained no matter how high the effort, or when certainty is too high—prompting the feeling that future goals will certainly be attained no matter how low the effort. When the future feels completely certain, simply a continuation of the present, current and possible selves are unlikely to feel discrepant. Lacking discrepancy, cuing possible selves should not influence motivation. Certainty, in other words, can become so high that it undermines effort. At the other end of the continuum, there is no reason to engage in efforts to attain future possible selves if the goals are not attainable or if life is beyond one's control. Thus, when a desired future is completely unachievable or out of one's hands completely, cuing possible selves should not influence motivation. While related, certainty about attainability of goals and certainty about controllability of the future involve somewhat different processes. In the following sections, we distinguish effects of certainty about goal attainment from effects of certainty about controllability of the future. In addition, moving beyond the goal engagement and disengagement effects of certainty, we also propose that optimal levels of certainty should produce positive spillover effects whereas lower or higher than optimal levels of certainty should produce negative spillover effects. Positive spillover effects

involve a self-constructive approach beyond pursuit of a particular goal, a willingness to engage in positive future-oriented behaviors such as wearing safety belts or helmets. Negative spillover effects involve a self-destructive approach beyond pursuit of a particular goal, a willingness to engage in behaviors likely to be risk increasing in the future such as smoking, drug, or alcohol use.

Certainty about Attainability

Up to a point, increasing certainty about goal attainment should have positive effects on effort—one has to believe that there is some chance of success to sustain effort over time. Indeed, strategies to increase effort often focus on ways to increase belief that a goal is attainable, either by providing feedback that progress has been made or by highlighting that current failure does not close off options. Thus, weight watchers can use their weekly weigh-in to see that progress is being made toward their weight loss goal and on weeks in which too many cakes were consumed to produce weight loss; one can be consoled by the fact that each new week brings new weight loss chances.

However, beyond a certain point, these very cues can also increase the likelihood of motivation-undermining feelings of certainty about goal attainment. As outlined below, one way to undermine motivation is to provide too many concrete markers of goal progress. Another way to undermine motivation is to provide very clear information that second chances are possible. While quite different on the surface, both kinds of cues have in common that individuals do not need to maximize effort in the moment and may be able to “coast” a bit, reducing effort on a particular goal and turning attention either to other goals or to more immediate pleasures. Things that can be done again do not feel as consequential, even though, of course, most goals are attained only through repeated as opposed to single choices.

A set of studies illustrates this point. The undermining effect of specific feedback was demonstrated in a computer game setting. Effort (operationalized as speed of button press) was impaired among computer gamers who concluded that success was certain after receiving both clear feedback about goal progress and specific information about distance from a goal (Amir & Ariely, 2006). The undermining effect of second chances was demonstrated in a tempting choices setting. Succumbing to temptation (operationalized as unhealthy snack and entertaining as compared to edifying magazines and movies) was increased among participants told that they would be able to choose multiple times. “Single shot” participants who were told that they were to make a single choice were likely to eat healthy snacks and choose highbrow magazines and movies than multiple chance participants who were told that they would be making the choice again later (Khan & Dhar, 2007). Knowing for sure that one will have the chance to do the right thing again later reduces the chance that one will do it now (or later). Thus, when told that they would be able to make the choice again later, participants opted for the short-term pleasure more often than when they perceived the choice as non-repeating.

Moreover, when asked to make a choice again, a week later, they were not more likely to pick the goal-focused choice.

Just as high levels of certainty that a goal can be attained undermine effort by suggesting that attention *can* be shifted to other goals, high levels of uncertainty can undermine effort by suggesting that attention *should* be shifted to other goals. This line of reasoning is articulated in control theory in terms of assessed likelihood of reducing discrepancy between current and desired states (or of increasing discrepancy between current and undesired states). If likelihood is assessed as below a certain criteria, goal disengagement is postulated (Carver & Scheier, 1982; Wrosch, Scheier, Carver, & Schulz, 2003). Going beyond a control theory prediction of simple engagement vs. disengagement, we propose that high levels of uncertainty about attainability, the feeling that attaining positive and avoiding negative possible selves are hopelessly beyond one’s reach, can have negative spillover effects. That is, feeling that one cannot attain important life goals can increase risk of engaging in present-focused and future self-destructive behaviors. The reverse may also be true, that is, optimal levels of felt attainability may result in positive spillover effects, that is, will-

ingness to work maximally to attain possible self goals as well as a more generally willingness to engage in self-constructive behaviors.

Two studies, the first using a large sample of New York City, primarily minority, middle school students and the second using a nationally representative sample of eighth graders, illustrate the negative spillover effects. Certainty of attaining positive goals and binge drinking were assessed across a three-year interval from seventh to ninth grade. Students who believed that their chances of graduating from high school, finding an enjoyable job and having a happy family life were low were later more likely to report binge drinking (Griffin, Botvin, Nichols, and Scheier (2003). Academic goals, efficacy about their attainment, and in-school violent behavior were assessed in the second study. Students with high goals but low efficacy about their attainment were more likely to engage in in-school violence (Honora & Rolle, 2002). Taken together both studies provide ecological validity to our argument that perceived insurmountable gaps between goals and ability to attain them will be associated not simply with goal disengagement but with negative spillover—increased engagement in problem behavior. Future experimental research is needed to clarify that the causal process implied by our model is indeed operating.

In the next section, we shift focus from the effects of beliefs about goal attainability on effort to attain possible selves to the effects of beliefs about controllability of the future on effort. Although effort is likely to be influenced by both, the process involved differs somewhat. Controllability refers to the perception that effort matters either because one's qualities—athletic, intellectual, and other abilities—are malleable and likely to change with effort or more generally because the world is rule-governed so that following the rules will help. Just as with beliefs about goal attainability, beliefs about controllability should have an inverted U-shaped function. Felt lack of control, either because one's qualities are not malleable or because the world is not rule-governed for people like oneself, should result in reduced effort, as should overly high sense of control.

Perceived Controllability

Fatalistic beliefs focusing on lack of control (e.g., “everyone has a bullet with his or her name on it”, “when your number is up, you gotta go”) make pursuit of future goals unlikely. Wearing safety belts, refraining from tobacco, alcohol or other drugs, and even turning off the television to focus on studying all involve beliefs about the controllability and malleability of one's destiny. If life itself feels outside one's control, then the future is outside one's control and possible selves should feel unattainable by stint of personal effort.

Thus, while attainability matters—instigating maximal effort when certainty of attaining a possible self goal is neither too high nor too low, so does controllability. Controllability refers to the belief that one's own actions can change the course of future events. The association between control beliefs and willingness to take action to improve one's situation has been demonstrated across a range of outcomes including well-being and physical health (Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000) and academic outcomes (Dweck, 1996, 2000). Although the models differ, they have in common the idea that willingness to take action to improve one's future is more likely if one believes that outcomes are within one's control.

In the domain of school and academic attainments, belief that intelligence is subject to one's own control should result in increased effort. Students who believe that intelligence is malleable, open to their own control, should be more willing to engage in effort to improve than students who don't believe this and instead believe that their intelligence is a fixed entity beyond their control. In a recent demonstration of just this effect, white and African American Stanford undergraduate participants were randomly assigned to one of two treatment conditions or a no-treatment control group (Aronson, Fried, & Good, 2002). Positive effects on end of semester grades were found for African American students in the treatment condition involving both writing letters to pen-pals and being primed with the malleability of intelligence. To produce this effect, participants needed to convince themselves that one can control one's own academic outcomes. The intervention involved

participants who had agreed to be pen pals with low income students at risk of school failure. Participants were shown a movie in which an animated brain actually grew and changed with effort and then were asked to write a response to their pen pal describing intelligence as malleable, giving examples from their own life when hard work had paid off in better performance. Next, 10 days later, participants were given thank you notes from the student and his or her teacher and another handwritten letter and again asked to respond with a letter focusing on the malleability of intelligence with examples from their own life. Finally, 10 days later, participants were asked to write, revise, and practice persuasive speeches on the malleability of intelligence. Speeches were videotaped and shown to participants, who were told that the videotapes would be used in interventions with at-risk middle school students.

Results suggest that even college students can benefit from viewing intelligence as malleable. The controllability implied by viewing the future as malleable contrasts with perceptions of the future as pre-set and therefore uncontrollable. Students who view their academic future as predetermined by their unalterable level of intelligence are unlikely to put forth effort to improve performance. Similarly, the individual who believes that “when your number is up, you gotta go” or that “everyone has a bullet with their name on it” will not be particularly worried about eating sweet or salty foods, drinking, or smoking. Belief in the future as pre-determined by external forces such as fate or luck may, in such cases, undermine personal effort.

Cultural Influences on Control Beliefs

Feelings of control can be experienced relationally, at the group level (e.g., “I have to overcome these obstacles, or I’ll disappoint my group,” “We can do this”) or at the individual level (e.g., “I have to do this to be who I want to be, I can do this for myself”). Focus on relational or individual control is likely to vary by gender and cross culturally (see Yamaguchi, Gelfand, Ohashi, & Zemba, 2005). In both cases, to the extent that a primary way of controlling one’s outcomes is by sustained effort, taking action in the present to attempt to change the course of one’s future life makes sense.

Other’s successes can increase perceived efficacy in a number of ways: either directly through assimilation of like-others’ results (“If others like me can do it, so can I”) or use of like-others as role models (“If I work hard, I can become like that”). The perspective taken will depend on cultural dominance of an interdependent or an independent perspective. Upward social comparison makes positive possible selves salient among women and those higher in interdependence, perhaps because they include the other’s success into what may be possible for the self with effort (Kemmelmeyer & Oyserman, 2001a, 2001b). Similarly, a salient superachieving standard is motivating for younger students who can view the achiever as a future model, but not for students who should be at the same level as the superachiever (Lockwood & Kunda, 1997). A related literature on performance versus mastery goals suggests that seeking to outperform one’s peers has positive effects on effort (for a review and relevant studies, see Senko & Harackiewicz, 2005).

Although cultures vary in their belief in the power of fate and luck, a cross-cultural comparison of students from diverse countries such as China, India, and the United States suggests that students most commonly evoke effort in explaining their academic successes and failures (Tuss, Zimmer, & Ho, 1995). Whether framed as personal effort or effort for the good of one’s in-group, willingness to try more, try again, and keep going matters; belief in the malleability of one’s results based on effort is associated with better academic outcomes (e.g., Dweck, 2000). Across various age groups, interventions that change beliefs about effort also change willingness to persist in goal pursuit (Dweck, 2000).

Spirituality, while not always assessed, can clearly be part of a cultural perspective and can be powerfully implicated in self-regulatory effort. Faith-based initiatives seek to harness the motivational resource of connecting one’s own self-regulatory efforts to higher beliefs about the goals, strategies, and selves that are acceptable and worth attaining within one’s meaning-making frame-

work. Self-help groups, especially Alcoholics Anonymous, are often loosely or more explicitly linked to faith and spirituality as mechanisms of self-regulation.

DETAIL, STRATEGIES, AND SEQUENTIAL STEPS

As we outline in this section, results across a number of research programs converge in suggesting that possible selves matter not only because they focus attention on the future, but also because they link vivid images of oneself in a future state to current action that can be taken to move toward positive and away from negative future selves. For proximal possible selves to matter, they need to cue action in the present. For distal possible selves to matter, action in the present needs to be linked to outcomes in the future via more proximal possible selves that can serve as evidence that progress is being made and as markers for whether current effort is sufficient, needs to be increased, or plans of action need to be revised for the distal possible self to be attained.

Thinking only of one's best future (Oettingen & Kappes, Chapter 26, this volume; Oettingen, Pak, & Schnetter, 2001) or vaguely reminding people of future utility is no more helpful in inducing behavior change than failing to mention the future entirely (Vansteenkiste, Simons, Soenens, & Lens, 2003). Oettingen and colleagues (2001) found that simply dreaming about a wonderful future without explicitly also thinking about the gap between the present and this future had no motivational effect. Vansteenkiste et al. (2003) found that reminding participants that a particular task had future utility without any specific content about this future or any concrete rationale regarding why this task was relevant displayed no additional motivational effects when compared to a no-future control group.¹

Further, imagining becoming a doctor can only improve the chances of actually becoming one (or at least the likelihood of completing some sort of college degree) if this distal possible self is linked to current steps and more proximal possible selves. Persistent goal pursuit involves a series of steps, and the more distal the goal, the less clearly linked current steps may be to distal future goals and the greater the need for linkage to detailed proximal possible selves. Vague, general possible selves lacking behavioral strategies cannot function to guide self-regulation because they provide neither a specific picture of one's goals nor a road map of how to reduce discrepancies between the present and one's future possible selves (e.g., Carver, 2001).

Strategies should take into account the need for persistence over time. Most possible self goals involve persistence over time because the goal involves ongoing work rather than single criteria. For example, maintaining a healthy weight through exercise and diet does not involve one trip to the gym or one forgone cookie. Even what would appear to be a discrete attainment-focused possible self—the “accepted-to-college” possible self or the “published” possible self—typically involves repeated effort over time. Effective strategies include both one's own actions over time and how to engage in these actions in context. Thus, doing homework and getting to bed by 10 every night can be effective strategies for attaining a next-year school-focused possible self, but these strategies alone will not be enough in social contexts with friends who want to hang out during homework time or stay out late on school nights. Strategies need to include ways of dealing with relevant others, including friends, classmates, and teachers who may reduce or increase chances of goal attainment (Oyserman et al., 2004).

In addition to cuing the repetition of actions needed to attain more proximal possible selves, strategies may also serve as pathways from more proximal to more distal possible selves. Thus, next-year possible selves may be associated with more distal possible selves via a common set of strategies. For example, doing homework is a strategy to attain proximal school-focused possible selves, but doing homework can also improve chances of attaining more distal possible selves. In this way, doing homework as a way of working toward school-focused possible selves can link present action to attainment of distal possible selves focused on successful engagement with valued social identities, such as reflecting well on one's parents or becoming a valued member of one's racial/ethnic, national, or religious group (e.g., Oyserman, 2007). Strategies create steppingstones

from possible self to possible self at different temporal distances from the present, linking current action to both proximal and more distal possible selves.

RELEVANCE TO SELF-CONCEPT

Strategies to attain a possible self are likely to be cued frequently when the possible self converges or meshes well with other aspects of self-concept, important social identities, or contextually relevant stereotypes about one's in-group. Consider, for example, Asian American students for whom the model minority stereotype, the link between filial piety and academic attainment, and personal goals may all converge to make gaps between one's current academic situation and one's possible selves chronically salient. Conversely, consider Mexican American and African American students, for whom in-groups are stereotyped as not wanting to do well in school. Because they are not likely to be reminded of their school-focused possible selves and may find that others do not see school-focused possible selves as congruent with their racial/ethnic identities, these students are likely to find it more difficult to remain focused on working toward their school-focused possible selves. A number of interventions have been developed to create positive conditions for these students to focus on their possible self goals in school.

For example, in two studies, Cohen, Garcia, Apfel, and Master (2006) focused on making positive self-views salient to African American students as a way to increase their likelihood of attaining academic possible selves by combating negative stereotypes about African Americans (Steele & Aronson, 1995). Specifically, they asked teachers to hand out name-labeled envelopes containing instructions to students to write about either their most central values or least central values and explain why these are important to them (or in the case of least central values, why they might be important to others), then return the envelope to the teacher. Students were told that this was a regular class assignment (rather than an experiment), and each returned envelope was labeled with the student's name. Relative to those who wrote about their least central values, African American students who wrote about their most central values attained improved end-of-term grade point average.

Effects were most pronounced for previously low-performing students, and no effects were found for European American students. Although salience of racial stereotypes did not mediate the process, these stereotypes were less accessible among the students who wrote about their salient values. The authors inferred that the students who wrote about their values were reminded of why school mattered to them, and that this had helped buffer them from stereotype threat, that is, worse performance in a stereotyped domain. From an identity-based motivation perspective, these results imply that the intervention had an effect on low-performing African American students because it helped them link their valued possible selves to school when they might otherwise have felt conflict between focusing on school goals and the stereotypic content of racial identity (e.g., Oyserman, 2007).

Lack of convergence between racial/ethnic identities and possible selves has also been implicated in health-focused self-regulation (Oyserman, Fryberg, & Yoder, 2007). In these studies, when primed to think about their racial/ethnic group membership, low-income Latino and African American students were more pessimistic about their chances of maintaining good health. This undermining effect occurred for participants who associated risky health behavior with racial/ethnic group membership.

LINKING POSSIBLE SELVES TO OTHER SELF-REGULATION AND MOTIVATION PERSPECTIVES

TEMPORAL PROXIMITY MODELS

Action occurs in the present yet has consequences for the future. Indeed, the meaning of current action can be construed in terms of both the present and the future. A number of theoretical frame-

works have attempted to articulate how and when the future is perceived to be temporally proximal enough to matter for current action. One version of temporal proximity model comes from economics. Here the assumption is that the future is less real than the present—future benefits provide less pleasure and future costs produce less pain than parallel events in the present. Another version of temporal proximity model comes from psychology. Here the assumption is not that the future is discounted compared to the present but rather that when the future is taken into account, long term outcomes are more likely to be pursued.

Within the self-concept literature, this discussion has been less salient. However, possible selves are commonly defined as future-oriented components of the self-concept. That is, possible selves create a link between the present and future and make the future feel more tangible and in that sense, more proximal.

When the future appears to start in the present, current effort should be engaged. Of course futures can be temporally near (tomorrow) or far (in twenty years). The question follows of how far in the future possible selves should reside in order to be optimally motivating. In the following section, we articulate relevant temporal proximity models.

Estimating the Future via Willingness to Delay Consumption

In this way, an economic perspective would provide an estimate of how far into the future is too far to be motivating by examining the extent to which the future is discounted, how much more people would need in the future in order to delay consumption in the present. For instance, from an economic perspective, individuals should be willing to delay current consumption when they feel psychologically connected with a future self (Frederick, 2002; Frederick, Loewenstein, & O'Donoghue, 2002). When the future is too far away, the connection is no longer psychologically meaningful, one may be dead or be so different from now that a meaningful connection with one's present self is hard to imagine. Taking an economic perspective, there is no point saving for a retirement that one does not expect to live long enough to enjoy and no point in saving for an elderly and frail future self that one cannot imagine becoming or with whom one does not feel close.

Estimating Psychological Distance

Psychologists examining this issue have used various time points into the future. Unfortunately, measures differ in other ways as well, making integrative synthesis about potential differential effects of cuing possible selves focused on the near or more distal future premature (e.g., Hoyle & Sherrill, 2006; Oyserman & Fryberg, 2006). Therefore, in this section, we link possible self research to two other models or classes of models: temporal construal (Trope & Liberman, 2003) and future time perspective models (e.g., Simons et al., 2004). While distinct in their development and focus, both models would suggest that it is not how far chronologically into the future a possible self is, but rather how psychologically proximate or distal it feels that should influence the self-regulatory impact of a possible self (see also Perunovic & Wilson, Chapter 23, this volume). To the extent that close chronology is likely to cue close psychological proximity, then more distal possible selves are unlikely to influence behavior over time unless they are linked to a sequence of more proximal possible selves—possible selves that will occur in the nearer future and feel psychologically closer.

This means that the way that questions about time are framed in one's mind should have an impact on the extent that a possible self becomes salient as well as the extent that it continues to be the focus of self-regulatory effort. Thus, if the question is "Is the planned-for future near?" then vivid images of the possible self linked to detailed strategies should result in feeling that the future is proximal, so that one should focus on how to get needed tasks accomplished (see Libby & Eibach, Chapter 24, this volume; Trope & Liberman, 2003). More abstract images of the possible self that are not linked to detailed strategies should result in feeling that the future is distal, so that one does not really need to engage in any action in the present even though the future goals are valued.

Indeed, experimental evidence documents the impact of temporal construal on both psychologically experienced closeness and subsequent response (Amit, Algom, Trope, & Liberman, chapter 4, this volume; Smith & Trope, 2006; Trope & Liberman, 2003). Once a feeling of psychological closeness is cued, then participants focus on how to carry out a task rather than focusing on whether they should carry it out (see also Faude et al., Chapter 5, this volume). Conversely, psychological distance, once cued, focuses participants on whether the task is of value rather than on how the task would fit into one's daily schedule. In some ways, being able to see a goal as both temporally close (the future starts "now") and also distal (the future has meaning) should produce optimal striving in terms of both how and why a goal should be attained.

The temporal construal model fits well with correlational evidence stemming from future time orientation or perspective models (e.g., Eccles & Wigfield, 2002; Feather, 1990, 1992). This work shows that there are individual differences in future time perspective, such that specific points in the future (e.g., "when I graduate from high school," "4 years from now") feel closer for individuals able to imagine farther into the future. Thus, having a long future time perspective creates a greater sense of psychological closeness with future events than having a short future time perspective. If one cannot imagine one's future past the age of 20, then 20 seems farther away than if one can imagine one's future through grandparenthood. From the perspective of the temporal construal model, one would expect youth with a long future time perspective to engage in more current action to attain their possible selves for these psychologically "close" futures.

MULTIPLE GOALS, MULTIPLE STRATEGIES, AND CONTEXTUAL CUING

The self is multidimensional and includes multiple potentially competing goals (e.g., Abrams, 1994; Burke, 2003; King & Smith, 2004; Oyserman, 2001; Settles, 2004). Therefore, possible selves may compete not only with other aspects of identity but also with other possible selves. The problem of goal competition was noted by William James (1890); he described the competition within one's person between the aspiring bon vivant who argues for going out and the aspiring scholar who argues for focusing on studies. Since James's initial conceptualization, a number of self-regulation models have focused explicitly on juggling multiple, conflicting self-goals. Each of these models suggests that handling multiple goals is likely to involve tradeoffs between working on one goal and working on other goals. Because goals compete for time and resources, success in making progress toward a goal may result in shift of effort to another self-goal that seems more in need of one's time and energy (e.g., Carver & Scheier, 1982; Fishbach et al., 2006). Conversely, when progress toward goal attainment is slower than expected, increased time and resources should be diverted from other goal pursuits to improve goal attainment pace and likely success. As a result, the way that one interprets and frames progress has important implications for goal pursuit. For example, Fishbach and colleagues (2006) showed students information about how much they had left to study by pointing out that they still had halfway to go. These students were more likely to predict that they would continue studying than were students shown that they had already completed half of their study time.

FLUENCY MODELS

Because possible selves focus on an ultimately uncertain future, maintaining self-regulatory focus requires sustained effort in the face of difficulty. Experienced difficulty or ease of goal attainment can have unexpected effects on goal persistence, depending on how these subjective experiences are interpreted (for a review of the fluency literature as it relates to attitudes, judgment, and behavior, see Sanna, Schwarz, & Kennedy, Chapter 13, this volume; Schwarz & Clore, 2007; for related research on the informational value of good mood, see Martin et al., 1990). Because sustaining self-regulatory effort over time is difficult, difficulty may be misinterpreted as evidence that the possible self is not a reasonable goal and should be abandoned (Oyserman, Bybee, & Terry, 2006). This may happen if experienced difficulty is used to answer the implied question, "Is this possible self really

part of the true me?" or "Have I worked enough?" In these cases, difficulty implies that the answer to these questions is "Yes, you have tried enough, and no, this isn't really possible for you."

Conversely, difficulty and expended effort can also serve as reminders that the goal is important, and therefore effort should be continued without reduction in effort (Fishbach et al., 2006). This is likely if effort in the face of difficulty is understood as an answer to the implied question, "Is this important to me?" or "Do I care about this goal?" In these cases, feelings of fatigue and difficulty should suggest that one really cares and is willing to put in the needed effort.

Experiences of ease or difficulty can be evoked by ease or difficulty either in pursuing strategies or in imagining the relevant possible self in the first place. Thus, finding homework difficult may lead a student to infer that "Math is not for me," resulting in disengagement from proximal school-focused possible selves and even from more distal possible selves seen as linked to school-focused possible selves. The student may conclude, for example, that becoming a doctor is unlikely as well. Difficulty in imagining a pathway from the present to more distal possible selves can also produce disengagement from the goal. For example, when primed to think of college as expensive, low-income middle school students reduced planned homework time for that very evening compared with students primed to think of college as affordable via financial aid (Destin & Oyserman, 2008a). Further if a student finds it hard to picture himself or herself in college or as a doctor in the first place, this may signal that these possible selves are unachievable.

Yet, difficulty need not always be interpreted as a sign that the possible self is unlikely or that sufficient effort has already been supplied. Following from the fluency perspective, difficulty takes on different meanings depending on the implications drawn from it. For example, in sports, the saying "no pain, no gain" implies that painful effort is rewarded with movement toward important goals; indeed, it also seems to imply that more effort shows more commitment. To the extent that difficulty appears to answer such an alternative implied question, then difficulty should cue increased goal focus and a decreased tendency to refocus effort to alternative goals. Schwarz and Clore (2007) reviewed the literature on the meaning implied by subjective experiences, such as the experience of difficulty. They demonstrated, for example, that having difficulty listing eight fine Italian restaurants in one's hometown either leads to the conclusion that there are not many or that one is not an expert on fine Italian restaurants, depending on which question was posed immediately after the listing task. Their work strongly suggests that experiences of difficulty can mean very different things depending on what one asks oneself about the experience.

In their work on performance-based stop rules, Martin, Ward, Achee, and Wyer (1993) similarly focused on feelings as information. Specifically, Martin and his colleagues also found that an interaction exists between subjective experience and the question one poses about how the experience influences persistence. Focusing on the interaction between question posed and good mood, they found that when one asks oneself if a task is enjoyable, positive mood implies that it is indeed enjoyable, encouraging further effort. Conversely, when one asks oneself whether a task has been adequately completed, positive mood implies satisfaction with one's performance, encouraging disengagement from the task.

SELF-REGULATORY FOCUS

While fluency models speak to whether individuals will persist in goal pursuit, Higgins's (1996) self-regulatory focus model focuses not on whether goals will be pursued, but how they will be pursued. Goals can be pursued by avoiding failures and mistakes or by focusing on chances for successes and opportunities to make progress. Higgins termed these foci *prevention* and *promotion focus*, respectively. When success is defined as lack of failure, Higgins described the self-regulatory focus as prevention oriented. When failure is defined as lack of success, Higgins described the self-regulatory focus as promotion oriented. Promotion focus entails eagerly working toward positive outcomes, whereas prevention focus entails vigilantly working to avoid negative outcomes. Considerable research showed that primed or chronic promotion focus is associated with eagerness,

risk taking, and sensitivity to the presence or absence of gains. Conversely, primed or chronic prevention focus is associated with minimizing risk and sensitivity to the presence or absence of losses (Camacho, Higgins, & Luger, 2003; Higgins, 1997; Liberman, Idson, Camacho, & Higgins, 1999; Liberman, Molden, Idson, & Higgins, 2001; O'Brien & Oyserman, in press; see also Markman et al., Chapter 12, this volume).

Much as the possible self literature has assumed that all individuals have both positive and negative possible selves, the self-regulatory focus literature has assumed that all individuals can be promotion or prevention focused, depending on the context (Camacho et al., 2003; Higgins, 1997; Liberman et al., 1999, 2001). Promotion focus makes salient the possibility of success, encouraging action and chance taking. Conversely, prevention focus makes salient the possibility of failure, encouraging caution and deliberation. Importantly, pursuing goals in ways that match the regulatory orientation of the goal feels good and increases motivational strength (Spiegel, Grant-Pillow, & Higgins, 2004). Thus, eagerly pursuing success and vigilantly avoiding failures may feel right in a way that vigilantly seeking success and eagerly avoiding failure does not. Moreover, motivation increases when chronic or momentarily primed prevention or promotion focus is matched with prevention- or promotion-focused strategies.

Following this logic, it may be that self-regulation will improve when possible selves and strategies fit. Thus, expected possible selves are more likely to be pursued when strategies are promotion focused, involving pursuit of success, whereas feared possible selves may be more likely to be pursued when strategies are prevention focused, involving vigilant care to avoid failures. Moreover, in risky contexts, individuals may be likely to focus attention on the possibility of failures, whereas in lower-risk contexts, individuals are freer to focus on successes. This implies that in risky contexts, discrepancy between current and feared possible selves should be accessible and salient. Conversely, in low-risk contexts, discrepancies between current and positive desired selves should be accessible and salient. One recent study began to examine this possibility. In a 2×2 between-subjects design, Destin and Oyserman (2008b) primed participants to think about the college years as risky and failure prone or as safe and success prone. Participants were then asked about either their feared possible selves or their expected possible selves. Motivation to study and hours set aside for academics increased when context and possible self-focus matched; thinking of school as risky and of one's feared possible selves improved effort as did thinking of school as safe and of one's expected possible selves.

BALANCE

A related line of research suggests improved self-regulation among individuals whose salient or on-line possible selves include both positive (expected) and negative (feared) possible selves in the same domain, termed *balance* (Oyserman & Markus, 1990a, 1990b). When possible selves are balanced, individuals select strategies that both increase the likelihood of becoming like the positive possible self and decrease the likelihood of becoming like the negative possible self, thereby focusing self-regulation and broadening effort (Oyserman & Markus, 1990a, 1990b). When possible selves are balanced, individuals select strategies that both increase the likelihood of attaining the positive possible self and decrease the likelihood of becoming more like the negative possible self. In this way, balance narrows focus to those strategies that can serve both goals or at least are not likely to undermine one of the goals. By focusing on both the positive and the potential negative consequences of goal pursuit, self-regulatory effort is bolstered. Not only are youth with balanced possible selves likely to target narrower and more effective strategies, they are also more likely to work on their possible selves because discrepancy between current and possible selves can be cued either by focus on feared possible selves or by focus on positive expected or desired possible selves. Possible selves and strategies are thus likely to be cued whether the context is perceived as high risk (relevant to feared possible selves) or low risk (relevant to expected possible selves).

In a number of studies, European American and African American high school students with balanced pairs of positive and negative school-focused possible selves were less likely to report

involvement with delinquency (Oyserman & Markus, 1990a, 1990b), particularly if they also reported doing something currently to work on these possible selves (Oyserman & Saltz, 1993). When strategies are detailed and concrete, youth are particularly able to engage in sustained effort in pursuit of their possible selves. Thus, low-income African American and Latino youths whose possible selves included both positive and negative elements and strategies were less at risk for loss of academic efficacy and drop in grade point average than youth whose possible selves did not contain all of these elements (Oyserman et al., 2004).

Oyserman et al. (2006) designed an intervention to test a socially contextualized model of possible selves such as we have described here. They hypothesized that academic outcomes would improve if the conditions specified in the model were met. Specifically, academic improvement should occur if school-focused possible selves were balanced, linked to detailed strategies, contextually cued and perceived congruent with important social identities (especially gendered racial/ethnic identities), and if difficulty in pursuing these possible selves was interpreted to mean that doing well in school was an important self-goal. They worked with the eighth-grade cohort in three middle schools that enrolled low-income, predominantly African American and Latino students. A staff member randomly assigned students to attend their elective as usual or to attend the intervention. The intervention lasted for a single class period, twice a week, for a total of 11 sessions. In each session, students participated in activities designed to make possible selves and strategies salient, create a positive link between possible selves and social identities, and affirm the belief that difficulty is normal when working on an important goal. For example, youth picked pictures of their adult images, drew timelines into the future, and drew posters connecting current strategies with proximal and distal possible selves. Compared to a control group, students in the possible selves-focused intervention condition had improved academic outcomes as assessed by grade point average, attendance, in-class behavior, and time spent doing homework. Effects were assessed both at the end of the school year and at the end of a second school year and showed steady or increasing effect size over time.

Importantly, these academic effects were mediated by change in the possible selves students reported as expected and feared in the coming year. Specifically, the intervention resulted in an increase in both possible selves focused on becoming off track (delinquent, on drugs, pregnant) or doing poorly in school and an increased focus on school-based strategies such as going to class rather than skipping school to avoid these outcomes. It also resulted in an increase in the number of balanced school-focused possible selves that included both positive expectations and selves to avoid. Moreover, while these results were interpreted in terms of the risk-reducing effects of possible selves, mediation of the effect of parent-school involvement via its effect on possible selves could not be tested because parent-school involvement was only assessed at one point in time. However, it seems reasonable to assume that high parent-school involvement has a positive impact on children's in-school behavior and grades in part by reinforcing and sustaining children's school-focused possible selves. By attending school functions, parents let their children know that they see school as an important context for investment of time, implying that effort in school is worthwhile for the child and congruent with in-group identity. Moreover, by spending time at school, parents make school-focused goals more salient and accessible for their children, reducing the likelihood that competing goals will take precedence over school.

A PROCESS MODEL

In this chapter, we have linked possible selves theory with other relevant self-regulation models and outlined a process model of when and how possible selves are likely to influence self-regulation and outcomes. To provide a visualization of this process model and how it is likely to unfold over time, we developed the schematic drawing presented in Figure 25.1. Of necessity, the model is simplified to focus on a particular possible self. It does not depict movement between possible selves

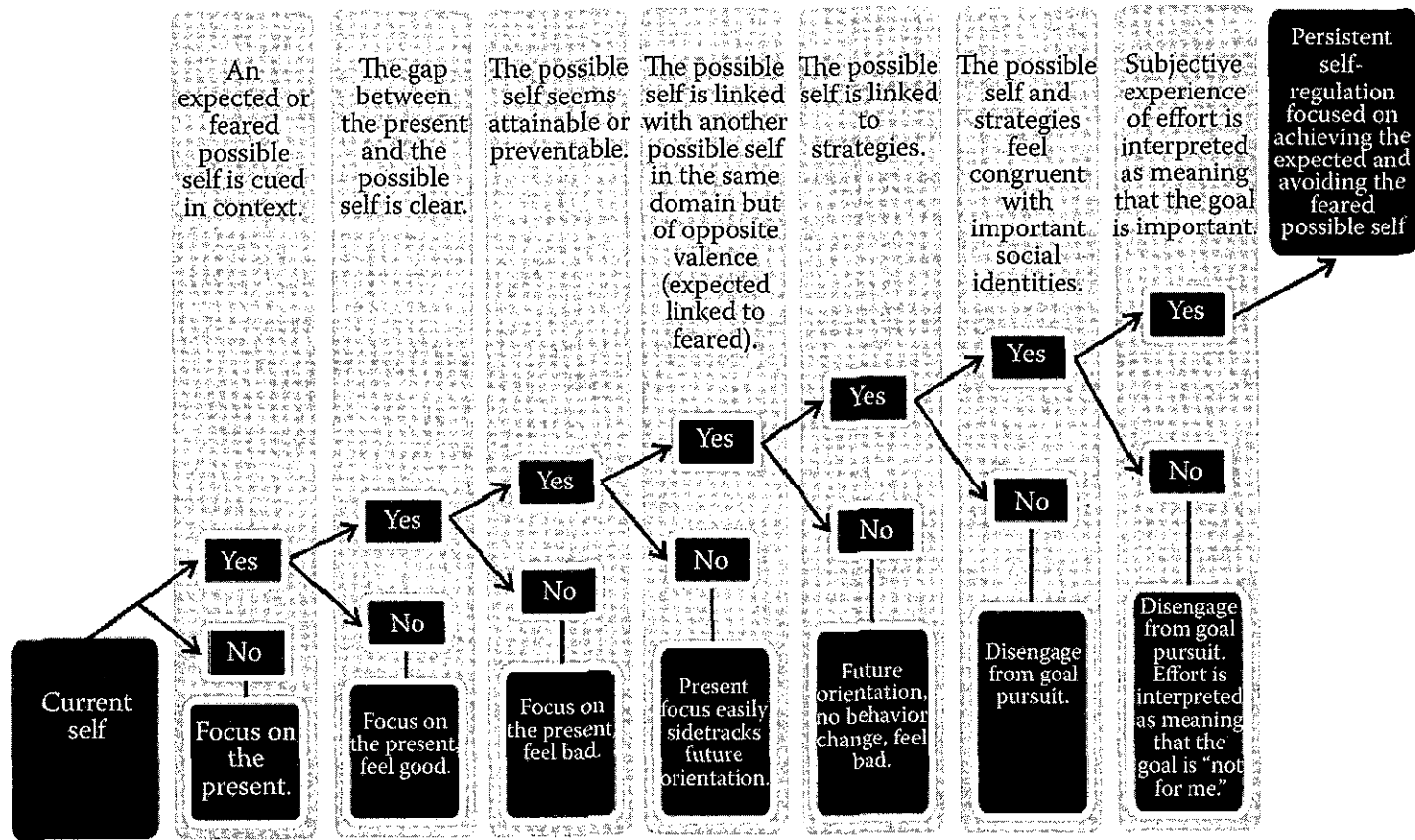


FIGURE 25.1 Possible selves: a process model of self-regulation.

and focuses on optimal certainty that a goal can be attained rather than detailing the full inverted U-shaped function we described earlier.

As depicted graphically in this figure, we propose that self-regulation involves a series of elements that must be present for sustained action toward future goals. If these requirements are not met, individuals are likely to be oriented toward the present rather than the future and so will not engage in persistent self-regulation. While the model presents a specific linear progression, we are not suggesting that the series must occur in this order, but rather that all the elements must be turned on. As laid out in Figure 25.1, the sequence can be outlined in seven parts (Oyserman, 2007; Oyserman et al., 2004, 2006):

1. A possible self is cued in context.
2. The gap between present and the possible self is clear.
3. The possible self seems attainable or preventable.
4. The possible self is linked to another possible self in the same domain but of opposite valence (e.g., a carrot-stick or balanced vision of where to go and what may happen if one does not stay focused).
5. The possible self is linked to strategies.
6. The possible self and strategies feel congruent with important social identities.
7. Subjective experience of effort is interpreted as meaning that the goal is important.

The process model suggests a testable sequence and allows for integration of possible selves research with other self-regulatory models. By outlining a specific process model, we hope to increase the usefulness of this integrative model for future basic and applied research efforts.

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NOTE

1. Discrepancy effects can also be motivating when the past is compared with the present, as demonstrated by Markman and colleagues (Markman & McMullen, 2003; Markman, Karadogan, Lindberg, & Zell, Chapter 12, this volume). In these studies, explicitly comparing the present to a better alternative past is more motivating than simply reflecting on how a better past alternative outcome could have been possible in the present.

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