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Persistence and Disengagement in Personal Goal Pursuit

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persistence, disengagement, personal goals, self-regulation, well-being, performance

Abstract

Persistence in and timely disengagement from personal goals are core components of successful self-regulation and therefore relevant to well-being and performance. In the history of motivation psychology, there has been a clear emphasis on persistence. Only recently have researchers become interested in goal disengagement, as mirrored by the amount of pertinent research. In this review, we present an overview of the most influential motivational theories on persistence and disengagement that address situational and personal determinants, cognitive and affective mechanisms, and consequences for well-being, health, and performance. Some of these theories use a general approach, whereas others focus on individual differences. The theories presented incorporate classical expectancy-value constructs as well as contemporary volitional concepts of self-regulation. Many of the theoretical approaches have spread to applied fields (e.g., education, work, health). Despite numerous important insights into persistence and disengagement, we also identify several unresolved research questions.

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INTRODUCTION

Humans strive for a great variety of personal goals with different levels of abstraction and time frames (Kruglanski et al. 2002). Most of our goals need actions to be repeated over an extended period of time (e.g., obtaining a university degree). Goal pursuit action naturally comes to a halt when it is necessary to wait for a suitable opportunity (e.g., next week's class), when an interruption occurs (e.g., a friend stopping by while one is working on a term paper), when the individual is confronted with setbacks (e.g., failing an exam), or when events render the goal unattainable (e.g., a serious illness). Thus, human goal striving unfolds in a constant process of committing to goals, investing and withdrawing resources, stepping up and reducing efforts, and also letting go of a goal; in short, it is a continuous interplay between persistence and disengagement. In the light of myriad personal goals, on the one hand, and limited (mental, physical, economic, and social) resources, on the other, the individual constantly has to decide—on a conscious or subconscious level—whether to hold on to or to let go of an endeavor (what is called the stability-flexibility dilemma; Brandstätter & Rothermund 2002, p. 120).

Thus, adaptive goal striving hinges on both tenacious persistence (Hoyle & Davisson 2016, Moshontz & Hoyle 2021) and timely disengagement (Wrosch & Scheier 2020). Displaying persistence after setbacks or naturally occurring interruptions is a prerequisite for learning and developing competencies and, on the most general level, for securing valued incentives. In the same vein, letting go of a goal that has turned out to be too costly or unrealistic protects the individual from the negative affect resulting from continuous frustration, and it frees resources that can be invested more productively for other endeavors.

Even though persistence and disengagement have mostly been treated separately in the literature, “these adaptive and maladaptive varieties of persistence and nonpersistence phenomena are products of the same self-regulatory system.... Theories that seek to explain persistence phenomena broadly should encompass adaptive and maladaptive varieties, and should account for nondeliberate, passive, and unnoticed varieties of nonpersistence” (Moshontz & Hoyle 2021). However, historically, (motivation) psychology has primarily been concerned with the determinants of goal persistence, losing sight of the similarly important issue of (timely) goal

Personal goals:

desired states of high personal relevance that are typically pursued over a longer period of time

Persistence:

an individual's continued or repeated actions in line with a goal

disengagement. More recently, though, goal disengagement has attracted the attention of researchers, and new theoretical approaches have been formulated that shed light on cognitive, affective, and behavioral processes in persistence and goal disengagement.

In this review, we discuss the most influential theories on human motivation, which provide answers to the following three questions: What makes people persist in pursuing a personal goal? What makes people disengage from pursuing a personal goal? What helps people decide whether to hold on or let go? Rather than discussing persistence and disengagement in specific goal domains (e.g., achievement, relationships, sports), we take a theory-driven approach, as quite a wide range of different contemporary theories might offer an answer to these questions.

In view of the limitations imposed by the scope of this article, our review will necessarily be selective. We have therefore decided to exclude certain research even though it is related to issues of persistence and disengagement—for example, endurance in sports (McCormick et al. 2015), medication adherence (Náfrádi et al. 2017), procrastination (e.g., Steel 2007), student persistence (Nguyen et al. 2019), prospective memory (Anderson et al. 2019), cognitive and neurophysiological accounts of persistence and engagement (e.g., Hommel 2015, Tops et al. 2016), escalation of commitment (Sleesman et al. 2018), and the sunk cost effect (Magalhães & White 2016). Further, we only include theories from the literature on self-regulation that have a clear focus on goal persistence or disengagement (for a broader review on self-regulation, see Inzlicht et al. 2020).

First, we introduce the core constructs: goals, persistence, and disengagement. Second, we elaborate on the basic principles that govern persistence and disengagement in human goal pursuit. Third, we give some thought to the functional and dysfunctional aspects of persistence and disengagement. Fourth, we present research from different lines of theorizing that sheds light on the determinants and processes of persistence and disengagement. Finally, we summarize the evidence, discuss key insights on the dynamics of persistence and disengagement in personal goal pursuit, and address open research questions.

Definition of Core Constructs

Goals are defined as cognitive representations of a desired state that motivate behavior toward their attainment (Austin & Vancouver 1996). Personal goals usually describe goals that are of high personal relevance or meaning to the individual (e.g., earning a university degree, getting married; Emmons 1992). Typically, these goals are pursued over a longer period of time rather than being achieved in a single episode of action, and some may not even have a specific endpoint (e.g., keeping fit) and therefore also require repeated action.

Many different terms have been used to describe the phenomenon of continued action toward a goal, such as persistence (Feather 1962), task persistence (Battle 1965), perseverance (Duckworth et al. 2007), tenacity (Baum & Locke 2004), and endurance (McCormick et al. 2015). Persistence in personal goal pursuit can be broadly defined as an individual's continued or repeated action in line with a goal (Feather 1962, Moshontz & Hoyle 2021), whereby two kinds of persistence can be distinguished. First, continuous persistence in a single unit of goal pursuit requires resisting the urge to quit one's efforts despite experiencing difficulties, lack of progress, or the opportunity to pursue other goals, for instance. Focusing on this kind of continuous persistence, Feather (1962) operationalized persistence by measuring the time participants worked on a task that was actually unsolvable or the number of attempts they made. Many personal goals cannot be attained in a single unit of goal pursuit, however, but require a sequence of action episodes, whereby people need to interrupt their pursuit and reinitiate goal-directed action at a later point in time. Thus, a second type of episodic persistence is characterized by resuming goal pursuit after it has been interrupted (Moshontz & Hoyle 2021). Successful pursuit of personal goals requires both types

Goal disengagement: dissolving one's commitment with a personal goal on the cognitive, affective, and behavioral levels

Continuous persistence: resisting the urge to quit goal-directed action in a single unit of goal pursuit

Episodic persistence: resuming goal-directed action after goal pursuit has been interrupted

of persistence: withstanding the urge to quit during a single unit of goal pursuit and repeated resumption of goal-directed action. Therefore, theories that address both types of persistence are relevant for the present review.

Although persistence is necessary for the attainment of personal goals, it can also become unproductive—for instance, when the goal is not feasible or not desirable anymore. Therefore, a third central concept is goal disengagement, which describes people's attempts to distance themselves from a personal goal (Brandstätter & Schüler 2013, Mens et al. 2016, Wrosch et al. 2003). To disengage from a personal goal a person needs to dissolve their commitment on the cognitive, affective, and behavioral levels. Thus, when the person no longer acts, thinks, and feels in correspondence with the goal, we observe a case of successful goal disengagement rather than nonpersistence (Brandstätter & Rothermund 2002, Wrosch et al. 2003).

Basic Principles of Personal Goal Pursuit

In most affluent Western countries, we are blessed with a seemingly endless variety of possible goals to pursue during our lifetime. This variety also comes with the challenge of choosing a small number of personal goals for oneself (Heckhausen et al. 2010). Thus, personal goal striving occurs in a multiple-goal environment where people pursue more than one personal goal and where other goals could potentially be pursued as well (Kruglanski et al. 2002).

This multitude of actually and possibly pursued goals comes up against limited amounts of the resources needed to pursue those goals (Brehm & Self 1989, Heckhausen & Heckhausen 2018, Kruglanski et al. 2002). Examples of such resources include physical condition, physiological energy resources, time, money, skills, and social resources such as level of support. Given that resources that are invested into one goal cannot be invested elsewhere, individuals face a twofold optimization problem. First, they need to allocate their resources optimally among their chosen personal goals, and second, they must identify when investing into one goal is no longer worthwhile and investing into a different potential goal would be more adaptive. This optimization problem is related to the two forms of persistence introduced above: That is, within each episode of goal pursuit and across multiple episodes, a person must decide whether or not to invest further resources in a goal.

Beyond this, personal goal striving hardly ever occurs without difficulties. When beginning an endeavor, people may expect that they will need to put prolonged effort into achieving their goals. However, unexpected difficulties may arise on the way to one's goal. For example, certain goal-directed behaviors may turn out to be aversive (Hennecke et al. 2019) or excessively difficult (Brehm & Self 1989), and people may face a lack of progress (Fishbach et al. 2009), severe setbacks (Dweck 2007), or dwindling opportunities (Heckhausen et al. 2010). As a result, an objective that seems achievable when initially setting the goal may become difficult or even unreachable during its pursuit. For instance, a couple may wish to have a child but their attempts to become pregnant may fail over and over again. Yet even if goal pursuit does run smoothly, a goal may also become unattractive over time. For instance, despite good grades a student may lose interest in their major over the course of their studies. In situations in which goals become unfeasible or undesirable, disengagement from that goal and reengagement with a new goal may be more adaptive. This is because investing further resources into the goal has opportunity costs with regard to other possible goals the person might pursue instead (Kurzban et al. 2013). These dynamics of desirability and feasibility within the process of goal striving require people to remain flexible and perhaps reconsider their commitment to a goal in order to maximize their outcomes.

To summarize, personal goal striving is governed by (at least) three basic principles referred to by many of the theories we will be reviewing: a variety of actually and possibly pursued goals,

limited resources for their pursuit, and the presence of difficulties. Goal persistence and goal disengagement are two processes that allow individuals to maximize their outcomes under these circumstances.

(Dys-)Function of Persistence and Disengagement

From an evolutionary and developmental perspective, persistence is not only an adaptive but also a necessary process that allows us to acquire important competencies. Skill acquisition involves countless cases of trial and error, not only during early human development (e.g., learning to walk) but also throughout one's life (e.g., studying a foreign language). This is why humans, as well as other animals, are endowed with the motivation to master their environment and a certain tolerance to failure, which enables them to remain persistent (Heckhausen & Heckhausen 2018, Lucca & Sommerville 2018).

From a motivational and self-regulatory perspective, too, persistence is widely acknowledged as being functional for goal attainment and performance (Moshontz & Hoyle 2021). As outlined above, many personal goals require the repeated investment of resources over a prolonged period of time, and people may also encounter difficulties and obstacles during their pursuits. Without persistence most personal goals would never be reached, and in that sense persistence is functional for securing the rewards associated with the goals that we commit ourselves to. Moreover, whereas the specific contents of personal goals are highly idiosyncratic, their function for well-being is not: Making progress towards personal goals is positively linked to well-being (Klug & Maier 2015). Modern theories of psychological hedonism even claim that the ultimate reason for pursuing personal goals is that we feel good when we pursue or attain them (Hennecke & Brandstätter 2017, Mees & Schmitt 2008). Therefore, it is also no surprise that persistence is positively linked to different indicators of well-being (e.g., Disabato et al. 2019).

However, as much as making progress contributes to our well-being, lack of progress and setbacks in personal goal pursuit can also undermine our well-being because they elicit negative emotions (Carver & Scheier 1982). Although difficulties may be a natural element in personal goal pursuit, constant failure not only makes goal pursuit unpleasant but also may indicate that a goal is futile. When a goal moves out of reach (or is no longer desirable), goal disengagement is an important way of protecting a person's well-being, physical health, and sense of control, which would otherwise suffer from further failed attempts (Heckhausen et al. 2010). Furthermore, disengaging from futile goals frees up resources for pursuing alternative goals that may be more likely to bring about rewards and contribute positively to one's well-being (Wrosch & Scheier 2020).

Overall, persistence and disengagement are both adaptive and functional in their own ways and therefore represent cornerstones of adaptive self-regulation, something that is acknowledged in a great variety of theoretical approaches. In the following, we highlight the most influential theories focusing on (a) persistence, (b) persistence and disengagement, or (c) disengagement. We begin our review with traditional approaches that continue to have an effect on modern theorizing.

THEORIES ON PERSISTENCE AND DISENGAGEMENT

Traditional Approaches to Persistence and Disengagement

In traditional motivation research, between the 1950s and the 1980s, when achievement motivation theory saw its heyday, persistence was investigated as one of the central characteristics of goal-directed behavior. Feather's (1962) exemplary studies on persistence were based on the risk-taking model (Atkinson 1957), one of the most influential theories of achievement motivation at the time. Persistence was shown to be determined by the interaction of personality (achievement

SDT:

self-determination theory

GST: goal setting theory

MIT: motivation intensity theory

Mindset: describes beliefs about the malleability of personal attributes (Dweck 2007) and the cognitive processes involved in goal pursuit (Gollwitzer 2012)

motives, such as seeking pride following success versus avoiding shame following failure) and situational determinants (task difficulty and the task's incentive value).

In a similar vein, in his attributional theory of achievement motivation, Weiner (1985) theorized that individuals' attributions of success/failure determine persistence by modulating the subjective probability as well as the incentive value of success/failure. For example, an individual who attributes a failure to an internal stable cause (e.g., lack of intelligence) will persist less in an endeavor due to a dampened expectancy of success and the related threat to self-esteem than an individual who attributes a failure to an external variable cause (e.g., a noisy environment during an exam) that does not compromise the expectancy of success.

Similarly, Bandura (1977, p. 194) in his social learning theory stressed the importance of efficacy expectations that "determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences." Together, these theories encompass classical expectancy-value conceptions, postulating that the motivation to select and to work persistently on a goal (task) depends on its subjective probability of success (expectancy) and its attractiveness (value).

Whereas early research on persistence was firmly anchored in achievement motivation theory and rich in empirical studies, research on goal disengagement lacked a unifying theoretical frame of reference. The very beginning of motivational research on disengagement can be dated to Eric Klinger's (1975) seminal article on "commitment and disengagement from incentives." However, despite its theoretical depth, this study did not provoke much empirical research at the time. Instead, issues of unproductive persistence and failing disengagement (termed, respectively, entrapment and escalation of commitment) were investigated in social and organizational psychology, with a focus on economic decision making (Brockner & Rubin 1985, Staw 1997).

Theories with a Focus on Persistence

In the following, we discuss six current motivational approaches that have a clear focus on persistence and in some respects refer to the traditional approaches. Self-determination theory (SDT) (Ryan & Deci 2019) focuses on the satisfaction of three psychological needs, whereas goal setting theory (GST) (Locke & Latham 1990) addresses how goals need to be formulated to foster persistence and performance. Motivation intensity theory (MIT) (Brehm & Self 1989) connects the two classical motivational variables of expectancy and value to predict how much effort people invest into a goal. Mindset theory (Dweck 2007) focuses on how beliefs about the malleability of human attributes affect persistence in the face of difficulties. The concept of grit (Duckworth et al. 2007) postulates individual differences in persistence in personal goal pursuit.

Self-determination theory. SDT is one of the most influential motivation theories, which has been built "brick by brick" (Ryan & Deci 2019) for 40 years now. It encompasses six mini theories addressing a wide array of issues related to persistent engagement in personal goals (e.g., intrinsic and extrinsic motivation, basic psychological needs) in all sorts of different contexts (e.g., parenting, work, education, sports, and health). The basic premise of SDT is that human beings have an inherent propensity "to take interest in their inner and outer worlds in an attempt to engage, interact, master, and understand" (Ryan & Deci 2019, p. 117). Doing things out of interest and with enjoyment (i.e., intrinsic motivation) is the purest form of self-determined behavior regulation. Not all goal pursuits are inherently joyful, but they can nevertheless be self-determined to a certain degree if the individual pursues the goal out of an inner conviction, for example, because of its relevance for the individual's values (called autonomous regulation). In contrast, controlled regulation (i.e., with a low level of self-determination) prevails if the individual pursues a goal for

the external reward/punishment or internal approval/pressure related to successful/unsuccessful goal achievement. Autonomous (versus controlled) regulation promotes persistence when working on single tasks (Neys et al. 2014, Ntoumanis et al. 2014) as well as when pursuing everyday personal goals (Gillison et al. 2019). Myriads of experimental and field studies have identified the satisfaction of three basic psychological needs (for autonomy, competence, relatedness) as preconditions for self-determined goal pursuit (Ryan & Deci 2017). If people feel that they have a choice and act on their own initiative (rather than being moved like a pawn on the chessboard), if they feel competent and self-efficacious (rather than helpless and overtaxed), and if they feel respected and related to others (rather than excluded or ostracized) they will display high “motivation quality, persistence, and experiences of wellness” (Ryan & Deci 2019, p. 115). SDT’s basic theoretical and empirical insights have been employed in a wide range of applied settings to motivate the adoption and maintenance of health-related behaviors (Teixeira et al. 2020), academic achievement (Hardre & Reeve 2003, Ryan & Deci 2020), and endurance in sports (Standage & Ryan 2020). Whereas SDT attaches great importance to basic psychological needs that are relevant to striving and thriving and to their associations with well-being, GST takes a completely different approach, focusing on specific goal characteristics that are supportive of persistent goal pursuit and high performance.

Goal setting theory. GST (Locke & Latham 1990, 2015) is anchored in industrial organizational psychology. More than 1,000 experimental lab and field studies support GST’s main assumption that challenging, specific goals lead to better performance than undemanding or vague “do your best” goals. The performance-enhancing effect of challenging, specific goals has been replicated across different countries, types of tasks (e.g., running a production department in a business simulation, logging trees in a wood processing company), goal sources (i.e., self-set, assigned, participatively set), time frames (i.e., from minutes to years), and levels of analysis (i.e., individual versus social entities) (Locke & Latham 2015). Most important, challenging, specific goals unfold their positive effect on performance through basic motivational principles, namely by giving direction to one’s behavior, regulating effort, and strengthening persistence (LaPorte & Nath 1976, Tammemagi et al. 2013). Beyond these mediators, GST specifies four moderators (i.e., ability, goal commitment, performance feedback, and situational resources/constraints) that determine whether the positive goal-performance effect occurs. Trivially, an individual would have to command the necessary competencies and have the necessary external resources at hand (e.g., work facilities). More importantly, however, the individual has to appropriate the goal in the sense of deciding that they will strive for it (i.e., high commitment). If people are not committed to a goal, level of difficulty and specificity do not matter anymore for performance. Finally, regular feedback is essential for adjusting one’s strategies to changing circumstances (Locke & Latham 2015). In complete agreement with the supposition of GST that specific, challenging goals unleash mechanisms that further effort and persistence, MIT has provided proof of this on the level of psychophysiological processes.

Motivation intensity theory. For the persistent pursuit of personal goals, people not only have to repeatedly initiate goal-directed action, but they also have to keep up their efforts once they engage in goal pursuit. MIT (Brehm & Self 1989) was proposed around the same time as GST but focuses on two different factors—namely, difficulty of goal pursuit and goal importance—to explain effort mobilization in a single episode of goal pursuit. In the context of MIT, effort is defined as the investment of physiological resources that enable the execution of behavior that is necessary for achieving a goal (Richter et al. 2016). A basic premise of the theory is that the mobilization of bodily resources is costly and that people will therefore only mobilize as much

effort as is needed to achieve a goal. Governed by this resource conservation principle, the amount of effort mobilized is jointly determined by the level of difficulty associated with goal pursuit and the importance of the goal. Mobilization of effort increases linearly with the level of importance of the goal but only up to the level of potential effort established by the goal's importance. At this point, effort abruptly drops to a low level. Thus, according to MIT a goal cannot be too difficult: People will continue to invest effort as long as the associated costs of investing resources are met by the goal's importance.

In the past three decades, numerous laboratory studies have found empirical evidence supporting the main assumptions of this model under varying degrees of task difficulty and task goal importance, using a variety of manipulations, tasks, and measures of effort mobilization (e.g., Brinkmann & Gendolla 2008, Gendolla et al. 2012, Richter et al. 2016, Wright 1996). However, some studies that used physical force as an indicator of the effort exerted (e.g., handgrip paradigm) have failed to provide support for MIT's assumptions. More specifically, people invested more effort than was necessary to be successful in a trial and continued trying tasks that were clearly impossible instead of saving their resources (Richter 2015, Stanek & Richter 2016). Research integrating these inconsistent findings is lacking (Richter et al. 2016). In summary, MIT explains the effort mobilized during a single episode of goal pursuit and has mainly been tested in the laboratory using task goals. Other accounts focus on the fact that people typically pursue multiple goals and emphasize the importance of feedback.

Dynamics of self-regulation. Feedback is a valuable source of information in terms of whether, what, and how much to further invest in one's goals (Braver et al. 2014). Research on the dynamics of self-regulation has examined the effects of positive (e.g., completed actions, successes, correct responses) and negative (e.g., remaining actions, failures, incorrect responses) feedback on goal persistence and motivation more generally (Fishbach & Finkelstein 2012, Fishbach et al. 2009). In this line of research, several (at least two) actions or choices that are aligned with the same goal represent "highlighting" (e.g., having a healthy dinner after working out), whereas actions favoring a different goal represent "balancing" (e.g., having an unhealthy dinner after working out) (Fishbach et al. 2009). Whereas highlighting is a clear case of continuous persistence, the case is less clear for balancing because goal pursuit might be resumed at a later point in time. Therefore, the findings of this line of research only speak to the case of continuous persistence.

Many classical motivation theories would suggest that positive feedback should promote persistence because it increases people's outcome expectancy of the goal and their perceived self-efficacy (Atkinson 1957, Bandura 1977, Weiner 1985). In contrast, cybernetic models suggest that negative feedback should be effective at increasing motivation and persistence because it signals a discrepancy between the current and the desired state, which encourages goal-directed action (Carver & Scheier 1982, Higgins 1987, Locke & Latham 1990). The empirical findings support both theoretical arguments and suggest that the effects of positive and negative feedback on persistence depend on how the feedback is interpreted (Fishbach et al. 2010, 2014; Koo & Fishbach 2008). More specifically, positive (versus negative) feedback can be interpreted as signaling (lack of) commitment to a goal or (lack of) progress toward it. A key finding of these studies is that positive feedback increases persistence, but only if it is interpreted in terms of goal commitment, suggesting that the goal is desirable and feasible. In contrast, negative feedback promotes persistence when it is interpreted as lack of progress toward the goal, suggesting that more effort is needed to accomplish the goal. Positive feedback that is interpreted as sufficient progress instead liberates individuals, allowing them to engage in actions that are inconsistent with the goal and to turn to other goals instead (Amir & Ariely 2008, Fishbach & Dhar 2005). For instance, in one study, Fishbach & Dhar (2005) approached female participants who had just attended a gym and

manipulated their perceived progress toward their dieting goal on a visual scale as being either positive (i.e., close to their target weight) or negative (i.e., far away from their target weight). In a subsequent food choice task, participants in the positive feedback condition were more likely to choose a chocolate bar over an apple, an action inconsistent with their dieting goal (Fishbach & Dhar 2005). Thus, positive feedback can undermine goal persistence if it is taken as a signal that one has already made sufficient progress toward a goal.

Taken as a whole, this line of research suggests that both kinds of feedback, positive and negative, can promote persistence in the sense of continuous actions or choices; however, their motivational consequences depend on their representation in terms of goal commitment and progress toward the goal. As shown, feedback can be interpreted in very different ways with specific effects on persistence, an issue that is also discussed in mindset theory.

Mindset theory. Mindset theory (Dweck 2007) proposes that people hold different beliefs—or implicit theories—about the malleability of attributes such as intelligence and personality. People with a growth mindset (or incremental theory) view traits and abilities as malleable and capable of development, whereas people with a fixed mindset (or entity theory) view them as fixed and unchangeable. These two mindsets represent the extremes of a continuum and can be measured via self-report and for different attributes (e.g., intelligence, personality). People’s mindsets are relatively stable across time and situations (Robins & Pals 2002), but they can also be briefly induced using short manipulations (Nussbaum & Dweck 2008) or lastingly changed by means of 1-hour to multi-week training programs (Blackwell et al. 2007, Mrazek et al. 2018, Yeager et al. 2019).

Mindset theory proposes that fixed and growth mindsets are each associated with a unique constellation of motivations, attributions, and behavioral patterns that primarily arise in response to difficulties (for a meta-analysis, see Burnette et al. 2013, Dweck 2012, Molden & Dweck 2006), whereby persistence in the face of difficulties is mainly studied in relation to people’s mindsets about intelligence and within the achievement domain. Considerable empirical evidence suggests that people with a growth mindset display greater persistence than people with a fixed mindset (for reviews, see Burnette 2010, Mrazek et al. 2018, Renaud-Dubé et al. 2015, Robins & Pals 2002). This has been found in experimental studies in the laboratory (e.g., using unsolvable tasks; Mrazek et al. 2018) as well as in everyday life by tracing people’s goal striving longitudinally throughout challenging life transitions (e.g., Blackwell et al. 2007).

With regard to the underlying mechanisms, Dweck and colleagues (Dweck & Leggett 1988, Dweck & Yeager 2019, Molden & Dweck 2006) argue that mindsets form the basis of a coherent meaning system, so that people set goals, attribute failure, and perceive effort in line with their mindsets. More specifically, experimental and longitudinal studies suggest that a growth mindset is associated with setting learning goals (i.e., the goal of improving one’s ability) rather than performance goals (i.e., the goal of proving one’s ability) (Burnette et al. 2013; but see Li & Bates 2019), with attributing failure to lack of effort rather than lack of ability (Hong et al. 1999), and with perceiving effort as useful to grow one’s abilities rather than as a sign of low ability (Blackwell et al. 2007, Hong et al. 1999, Miele et al. 2011). Each of these processes—i.e., learning goals, effort attribution of failure, and positive effort beliefs—has been shown to contribute to persistence (Hong et al. 1999, Mrazek et al. 2018).

Building on this empirical basis, researchers have started to develop and evaluate mindset-based interventions to tackle students’ underachievement (Dweck & Yeager 2019, Yeager & Dweck 2020; but see Burgoyne et al. 2020, Li & Bates 2019). Mindset theory, in contrast to the other theories described so far, highlights interindividual differences, which is also true of the concept of grit.

Grit. Grit is conceptualized as people’s “perseverance and passion for long-term goals” (Duckworth et al. 2007, p. 1087), which encompasses their ability to maintain interests, exert effort, and persist at goals over long periods of time. Grit and the proposed self-report measure consist of two components: perseverance of effort and consistency of interests (Duckworth et al. 2007). Perseverance of effort captures individuals’ tendencies to keep working toward long-term goals (as indicated by statements such as “I finish whatever I begin,” “I am a hard worker”). Consistency of interest represents individuals’ tendencies to pursue the same goals over time (as indicated in reverse by statements such as “I often set a goal but later choose to pursue a different one”).

Much research on grit has focused on its consequences for academic achievement. Studies have consistently found grit to be positively related to student engagement and academic success (Duckworth et al. 2007, Hochanadel & Finamore 2015, Tang et al. 2019). A recent meta-analysis showed that perseverance of effort is the stronger predictor for most criterion variables compared to consistency of interests, and it explains variance in academic performance even after controlling for other related concepts, such as conscientiousness, self-regulation, and engagement (Crédé et al. 2017, Muenks et al. 2017). Of course, academic achievement is only a proximal indicator for students’ persistence as it is affected by many other variables as well. However, grit also positively predicts the time people remain in (presumably) challenging circumstances—such as in military service, at the workplace (e.g., first-year teachers), and in their marriage—over and beyond established context-specific predictors (Eskreis-Winkler et al. 2014, Robertson-Kraft & Duckworth 2014).

More recently, researchers have started investigating the motivational and cognitive mechanisms underlying grit. Research has found grit to be related to more efficient effort mobilization (Silvia et al. 2013) but also to lower cognitive flexibility (e.g., failing to adapt to new task rules; Kalia et al. 2019), nonadaptive task strategies (e.g., keeping trying difficult items instead of skipping them; Lucas et al. 2015), and sustained attention when it is not needed (e.g., paying attention to irrelevant trials; Kalia et al. 2018). It has been concluded that “in situations where the constraints are fewer and the next set of moves may not be as clear, individuals with high grit-perseverance and lower cognitive flexibility would likely fall back on their heuristic strategy of pushing through, which may not always help them succeed” (Kalia et al. 2019, p. 376). Thus, there is some initial indication that under certain conditions grit may cause overpersistence, which may have negative consequences.

Theories with a Focus on Persistence and Disengagement

In the following paragraphs, we present four influential motivational theories that broaden the scope of the analysis by concurrently addressing processes related to persistence and to disengagement. Although personality systems interactions (PSI) theory (Kuhl 2000) and the model of action phases (MAP) (Gollwitzer 2012) are rooted in common origins (i.e., German will psychology; Ach 1935, Lewin 1926), they developed in different directions, focusing on affective and cognitive processes, respectively. The dual process theory of assimilation and accommodation (Brandtstädter & Rothermund 2002) and the motivational theory of life-span development (Heckhausen et al. 2010), in turn, converge in their conception of the life course “as being organized around sequential series of action cycles that involve goal selection, goal pursuit, and disengagement from goals” (Heckhausen et al. 2010, pp. 32–33).

Personality systems interactions theory. PSI theory (Kuhl 2000, 2018; Kuhl et al. 2021) addresses several instances of successful self-regulation: selecting self-congruent goals that satisfy one’s basic needs (Schultheiss & Brunstein 2010), tenaciously pursuing a goal over prolonged

periods of time, and not giving in to one's immediate impulses or when suffering setbacks while also disengaging from fruitless endeavors. PSI theory is a comprehensive, functional theory of self-regulation that integrates affective, cognitive, motivational, and neurobiological processes from an individual difference perspective. PSI theory has its beginnings in action control theory (ACT) (Kuhl 1985), which represents a first culmination point in the then-evolving advancement of classical (achievement) motivation theory into modern volition psychology, which focuses on self-regulation after a goal has been set (Kazén & Quirin 2018).

The core construct is that of action versus state orientation, which describes individual differences in affect regulation competencies. More specifically, ACT differentiates between high versus low ability to self-generate positive affect (prospective action versus state orientation) and high versus low ability to down-regulate negative affect (action versus state orientation after failure). Both types of action/state orientation are measured by the action control scale (Bettschart et al. 2021, Kuhl 1994). By distinguishing between prospective and failure-related action/state orientation, this approach monitors two basic challenges to successful self-regulation: putting intentions into action even if this is difficult while disengaging from futile goal pursuits (i.e., volitional efficiency; Jostmann & Koole 2009) and withstanding negative experiences from setbacks and learning from them (i.e., self-development; Koole et al. 2019). On a behavioral level, prospective action-oriented (versus state-oriented) individuals are more likely to resume interrupted activities (Birk et al. 2020), to adhere to goal pursuits once initiated (Palfai 2002), and to put more of their intentions into action (Kazén et al. 2008), thus achieving higher volitional efficiency. In the same vein, failure-related action-oriented (versus state-oriented) individuals are less prone to uncontrollable ruminative thoughts that are irrelevant to the task after negative events. They also integrate negative experiences into the self more easily by relating these to their values and competencies (i.e., self-development; Kuhl 2018). These basic assumptions of ACT have been refined in PSI theory, which specifies on a functional level the highly complex interplay between cognitive, affective, motivational, and neurobiological processes in goal pursuit (Baumann et al. 2018, Kuhl 2018). In brief, PSI theory contends that it is the regulation of positive and negative affect that governs the interplay between four cognitive macrosystems (i.e., intention memory, intuitive behavior control, extension memory, and object recognition), the dynamic configuration of which determines goal-directed self-regulation in all its facets. ACT and PSI theory have widely diffused to various subdisciplines of psychology—among others, life-span (Hennecke & Freund 2016, Kaschel et al. 2017), educational (Khany & Amiri 2018), clinical (van Randenborgh et al. 2016), organizational (Diefendorff 2004, Wojdylo et al. 2017, Yang et al. 2016), and health (Palfai 2002) psychology as well as neuroscience (Schlüter et al. 2018).

Model of action phases, mental contrasting, and implementation intentions. The MAP (Gollwitzer 2012, Heckhausen & Gollwitzer 1987), which grew out of a prolific intellectual exchange between Julius Kuhl, Heinz Heckhausen, and Peter Gollwitzer in the 1980s, marked a turning point in the history of motivation psychology, whose influence continues to this day. The model brought together the past and future, reviving the old German psychology of the will that addresses the self-regulatory processes emerging when a goal pursuit runs into difficulties (Ach 1935) and Lewin's (1926) theorizing on the dynamics of goals based on expectancy-value concepts, thereby setting the stage for modern concepts of goal-directed self-regulation.

The MAP comprehensively describes the processes “on the long way from wishes to action” (Heckhausen & Kuhl 1985), postulating distinct phases and related passage points. Successful goal pursuit is described “as the smooth transition through the four consecutive action phases” (Keller et al. 2020, p. 79) of weighing one's wishes according to their desirability and feasibility (deliberative phase); taking a decision between them and forming a binding goal as well as planning

when, where, and how to perform goal-directed behavior (planning phase); initiating behavior and acting persistently toward the goal (actional phase); and evaluating the behavioral outcomes after having completed goal striving (evaluative phase).

An initial outgrowth of the MAP was an analysis of cognitive functioning (i.e., mindsets) in the deliberative and implemental (i.e., planning and actional) phases. Deliberative and implemental mindsets were shown to emerge spontaneously when individuals devote themselves to a phase-specific task (i.e., choosing versus implementing a goal) and evince characteristics that support the task (Achtziger & Gollwitzer 2018). Most importantly, in the implemental mindset “the person sees the feasibility of the chosen goal in an overly optimistic way, and views the desirability of the chosen goal in a partial manner (i.e., pros exceed cons)” (Gollwitzer 2012, p. 529), which definitely furthers persistence (Brandstätter & Frank 2002). Obviously, the MAP’s initial focus was on persistent, uninterrupted goal striving and on mindset intended as a quasi-automatic self-regulatory process supporting it. However, subsequent research broadened the scope of analysis. More specifically, mental contrasting (Oettingen 2012) and implementation intentions (Gollwitzer & Sheeran 2006) were proposed as deliberate self-regulatory strategies that can be applied strategically to tackle the challenges of not only (a) committing oneself to desirable and feasible goals, (b) initiating goal-directed behavior, and (c) remaining persistent in the face of difficulties or after inherent interruptions, but also (d) calling unsuccessful goal pursuits to a halt.

Mental contrasting originates in fantasy realization theory (Oettingen 2012) and denotes an imaginative procedure whereby an individual alternates between indulging in positive fantasies about goal attainment (e.g., a long-lasting applause following one’s talk) and thinking of the obstacles that have to be overcome on the way to one’s goal (e.g., preparing the talk under time pressure). Mental contrasting not only brings the desired outcomes before one’s mind’s eye and thereby fuels and energizes action with the anticipation of wish fulfillment, but it also helps to gauge the probability of successful goal attainment given the identification of obstacles. Dozens of lab and field experiments in various domains have shown mental contrasting to be an effective self-regulatory tool that promotes the selection and pursuit of attractive and feasible goals and the distancing from goals out of one’s reach (Oettingen 2012).

Mental contrasting has been combined with implementation intentions, another highly efficient cognitive self-regulatory strategy (Gollwitzer & Sheeran 2006). Implementation intentions are binding plans on when, where, and how to act on one’s goal. Implementation intentions take on the format of a cognitive association between a prespecified opportunity for acting and a specific goal-directed behavior (i.e., “If situation *x* arises, then I will perform behavior *y*”). The use of implementation intentions is extremely flexible, as, on the one hand, the if-component can be an external event (e.g., “If Anna calls. . .”) or an inner state (e.g., “If I feel stressed. . .”), and, on the other hand, the then-component can encompass a behavior (e.g., inviting Anna for dinner) or a specific way of cognitively appraising a given situation (e.g., focusing on the positive aspects of the job interview). In innumerable studies, implementation intentions have proven to support the initiation of goal-directed behavior, allowing individuals to stay on track despite distractions and difficulties but also to let go of an unproductive goal (Achtziger & Gollwitzer 2018). Implementation intentions have proved to be powerful not only on the level of the individual but also on the level of group goal striving (Thürmer et al. 2017, Wieber et al. 2015). Implementation intentions function via a heightened cognitive accessibility and perceptibility of the specified situation, on the one hand, and the automatic implementation of the critical response once a predefined opportunity arises, on the other hand. As such, implementation intentions help individuals to resume goal-directed behavior and support persistence (Moshontz & Hoyle 2021, Ntoumanis & Sedikides 2018). However, they can also be used to support functional disengagement when the individual is confronted with difficulties (Henderson et al. 2007, Legrand et al. 2017, Wieber et al. 2015).

Recently, research has begun to investigate the neural underpinnings of implementation intentions (Wolff et al. 2018). In a task requiring muscular endurance, forming implementation intentions (e.g., “If the task becomes too strenuous for me, then I will ignore the strain and tell myself, ‘Keep going!’”) versus merely adopting the goal (e.g., “I want to persist for as long as possible!”) was associated with lower activation of brain regions associated with effortful self-regulation (i.e., the dorsal lateral prefrontal cortex). Thus, individuals making use of implementation intentions “can strategically switch between the conscious and effortful control of goal-directed behaviors and the automatic control of these behaviors in response to selected situational cues” (Achtziger & Gollwitzer 2018, p. 504). Most importantly, when combining mental contrasting and implementation intentions (MCII) one gets the most out of both self-regulatory strategies: commitment to desirable and feasible goals and their persistent pursuit if circumstances are favorable, or disengagement if the outlook is gloomy.

MCII was eagerly received by health psychologists, because supporting people in changing their health habits (i.e., increasing healthy and decreasing unhealthy behaviors) is a thorny and not always successful endeavor (Hagger et al. 2016, Oettingen & Gollwitzer 2018). Several recent meta-analyses evidence these easily taught, highly effective self-regulatory strategies to promote the persistent pursuit of health goals (e.g., Bélanger-Gravel et al. 2013, Cross & Sheffield 2019, da Silva et al. 2018, Malaguti et al. 2020, Vilà et al. 2017).

Dual process theory of assimilation and accommodation. Originating in life-span psychology, the dual process theory of assimilation and accommodation (Brandtstädter & Rothermund 2002, Rothermund & Brandtstädter 2019) focuses on the dynamic interplay between tenacious goal pursuit (assimilative mode) and flexible goal adjustment (accommodative mode) in personal goals. Both modes are characterized by specific cognitive features and are conceived of as adaptive but antagonistic ways of regulating goal-directed behavior. The default is the assimilative mode, which “largely corresponds to what has been described as persistent goal pursuit” (Rothermund 2006, pp. 220–21). The assimilative mode reigns as long as the individual ascribes high personal importance to the goal and upholds positive expectations of reaching it. This is fostered by goal-focused selective attention on the goal’s desirability and the potential difficulties to be tackled and by suppressing distracting information (Brandtstädter & Rothermund 2002). Nevertheless, once recurrent difficulties arise and frustrations accumulate, leading to a sense of uncontrollability, the accommodative mode sets in. Goal adjustments are now the key, and these might span from lowering one’s level of aspiration (e.g., undertaking hikes in the nearby hills instead of climbing 4,000-m summits) to giving up the goal and committing to new goals (e.g., learning a new language instead of mountaineering). In cognitive terms, the accommodative mode features an unfocused broad attention to all kinds of information, including attention to information that is irrelevant to the goal in question, greater sensitivity to external stimuli (Brandtstädter & Rothermund 2002), and “palliative and self-serving cognitions. . . which in turn [facilitate] processes of disengagement” (Rothermund 2011, p. 62). When goal pursuit runs into difficulties, the decisive factor determining whether to increase commitment and effort or reduce it is the expectancy of control in a given situation: High expectancy spurs the assimilative mode, whereas low expectancy triggers the accommodative mode. Most notably, these processes unfold in an automatic, nonconscious manner, as Rothermund (2011, p. 56) claims: “Although insight and reflection play an important role in action regulation. . . all important action regulation processes also critically depend on automatically operating cognitive and affective mechanisms.”

Besides sophisticated lab experiments on the automatic cognitive processes discussed so far (Rothermund 2011), the bulk of research has focused on individual differences in assimilative/accommodative modes and their downstream consequences on well-being. The individual’s

inclination toward assimilation and accommodation can be measured using Brandtstädter & Renner's (1990) 30-item self-report questionnaire, which has two scales: tenacious goal pursuit (e.g., "If I run into problems, I usually double my efforts"), denoting assimilation, and flexible goal adjustment (e.g., "After a serious disappointment, I soon turn to new tasks"), denoting accommodation. In line with theory, accommodation reduces the adverse impact of impairments (e.g., chronic pain, loss of sight) that jeopardize personal goal striving on well-being (e.g., Boerner 2004, Hajek & König 2020). Recently, Greve and colleagues (Lessing et al. 2019, Thomsen & Greve 2013) have broadened the scope of the model by studying developmental precursors of accommodative coping in childhood and early adolescence.

The motivational theory of life-span development. The motivational theory of life-span development (MTD) (Heckhausen et al. 2010, 2019) starts from the same general assumption as Brandtstädter & Rothermund's (2002) theory of assimilation and accommodation, and it views an individual's life-span development as a continuous balancing of the persistent pursuit of multiple long-term goals in major life domains (e.g., work, social relationships, health), on the one hand, and disengagement from those goals that have become unattainable, on the other hand. However, MTD emphasizes so-called age-graded developmental goals (e.g., undergoing vocational training, entering the labor market, starting a family, retiring from work), individuals' behavioral resources (e.g., strength, vitality, income, social status), and the social ecology that provides opportunities and constraints to the individuals' pursuits. Along a general life-course trajectory, resources and opportunities increase from childhood to midlife and then decrease toward old age, which is also characterized by an accumulation of constraints (e.g., health impairments, social isolation).

Developmental goals are optimally realized within specific "lifetime windows," the closing of which marks a developmental deadline (Heckhausen et al. 2019). Developmental deadlines are constituted by specific biological (e.g., biological clock for having a child), sociostructural (e.g., housing situation), and age-normative (e.g., school age) factors (Heckhausen & Buchmann 2019, Heckhausen et al. 2001, Schoon & Heckhausen 2019). Once a developmental deadline has passed, the pursuit of certain goals is no longer possible (or only at the risk of wasting one's resources). This said, successfully regulating developmental goals hinges on the match between the opportunity structure and the choice of appropriate regulatory strategies. When faced with plentiful resources and opportunities (e.g., as in young age), goal engagement (i.e., overcoming obstacles by mobilizing effort) is the method of choice, whereas when resources and opportunities have faded individuals need to disengage from the respective goals. Empirical research into various core life transitions (e.g., childbearing, transition from university to work, coping with serious health problems) has shown that individuals do indeed engage or disengage according to their current opportunity structure, which has positive downstream consequences for their well-being and health (Haase et al. 2012, Hall et al. 2010).

Theories with a Focus on Disengagement

In this section, we present two theoretical concepts that focus exclusively on processes related to goal disengagement, adopting either an individual difference perspective (goal adjustment capacities; Wrosch & Scheier 2020) or a general approach (action crisis; Brandtstätter et al. 2013).

Goal adjustment capacities. The work by Carsten Wrosch and colleagues on goal adjustment capacities (Wrosch & Scheier 2020, Wrosch et al. 2003) overlaps somewhat with the dual process theory of assimilation and accommodation (Brandtstädter & Rothermund 2002) as it, too, postulates individual differences in "how people manage the experience of unattainable goals

and protect their subjective well-being and physical health” (Wrosch & Scheier 2020, p. 199). According to Wrosch & Scheier (2020), in different life contexts, it is not uncommon for people to face situations in which realizing a personal goal is no longer possible (e.g., critical life effects such as job loss or a serious illness). The theory states that “the psychological distress and emotional turmoil resulting from the pursuit of unattainable goals” (Wrosch & Scheier 2020, p. 204) can have a negative impact on people’s mental and even physical health. The only way to escape from this onerous situation is to disengage from the goal and to reengage with an alternative goal. Notably, goal reengagement is of utmost importance, because simply letting go of a goal would leave the person empty-handed, compromising their personal identity and reason for living (Wrosch & Scheier 2020, p. 202). As important as goal disengagement and goal reengagement may be, Wrosch & Scheier (2020) conceive of them as core self-regulatory capacities, which individuals do not have command of to the same degree. Instead, both goal disengagement and goal reengagement are conceptualized as independent capacities that can be measured using the Goal Adjustment Scale (Wrosch et al. 2003). Four items measure the capacity to withdraw behavioral effort and psychological commitment (e.g., “If I have to stop pursuing an important goal in my life, it’s easy for me to reduce my efforts toward the goal.”). Goal reengagement, on the other hand, is assessed using a six-item scale and is conceptualized as the capacity to identify, commit to, and start pursuing new goals (e.g., “I seek other meaningful goals.”). A recent meta-analysis by Barlow et al. (2020) attests to the reliability and predictive validity of these measures with respect to subjective well-being and physical health. In more concrete terms, both goal adjustment capacities further subjective well-being when people face harsh living conditions that jeopardize the pursuit of their personal goals—e.g., acquired brain injury (Van Bost et al. 2020) or caring for a mentally ill family member (Wrosch et al. 2011). Interestingly, goal disengagement and goal reengagement have differential effects: The former is more strongly related to indicators of negative well-being (e.g., psychological distress, depressive symptomatology), whereas the latter is more strongly related to indicators of positive well-being (e.g., positive emotions, purpose in life). This is fully in line with the theoretical assumption that goal disengagement saves the individual from the experience of repeated failure, whereas goal reengagement orients the individual toward new, meaningful, and more satisfying goals. In the same vein, cross-sectional and longitudinal studies show that both goal disengagement and goal reengagement have a health protecting function when stressful life conditions compromise goal pursuit, as they are associated with fewer health symptoms and smaller disruptions of the endocrine (e.g., diurnal cortisol release) and immune (e.g., chronic inflammation) systems (Castonguay et al. 2017, Jobin & Wrosch 2016, Wrosch & Scheier 2020, Wrosch et al. 2007). Whereas the main focus of pertinent research has been on the downstream consequences of goal adjustment tendencies, interest has more recently shifted to their antecedent conditions. Based on functional accounts of emotion (Heckhausen 2000, Klinger 1975, Nesse 2000), it is hypothesized that a “depressive mood may confer an evolutionary advantage by facilitating the abandonment of goals whose pursuit is likely to result in danger, loss, or wasted effort” (Wrosch & Scheier 2020, p. 219). There is some initial empirical evidence supporting this notion (Koppe & Rothermund 2017, Wrosch & Miller 2009). With respect to affective precursors of goal reengagement, Haase et al. (2021) have shown that positive affect, satisfaction with life, and purpose in life predict increases in goal reengagement capacities over time.

Action crisis. Several theoretical accounts point to the importance of timely goal disengagement for well-being (Brandtstädter & Rothermund 2002, Heckhausen et al. 2010, Wrosch et al. 2003). Yet there has been little research on the actual processes involved in goal disengagement. Should goal disengagement be conceived of as “radical shift. . .analogous to a lion chasing its prey [that] at first goes full speed. . .but when the prey turns out to be too fast. . .the lion will not gradually

slow down but rather stop in his tracks and turn around” (Heckhausen et al. 2010, pp. 40–41)? Or is it better conceptualized as a longer-lasting and wavering process? Klinger (1977), a pioneer in goal disengagement research, was clear about this. He claimed that disengaging from a goal can be a lengthy process and an incisive experience for the individual, one that is accompanied by pronounced behavioral, emotional, and cognitive changes—a kind of “psychic earthquake” (Klinger 1977). Brandstätter and colleagues (Brandstätter et al. 2013, Herrmann & Brandstätter 2015) have adopted Klinger’s stance and focused on a critical phase in this process. They have coined the concept of action crisis, which describes a motivational conflict in which the individual is torn between holding on to and letting go of a personal goal, a situation that typically arises when individuals have already invested a great deal into their goal but suffer repeated setbacks and/or a substantial drop in the desirability of the goal. The intensity of an action crisis with respect to a concrete personal goal is measured using the Action Crisis Scale (ACRISS) (Brandstätter & Schüler 2013). The ACRISS consists of six items (e.g., “I have doubts whether I should continue striving for my goal or disengage from it”) focusing on different aspects of goal striving (i.e., decisional conflict, implemental disorientation, rumination, disengagement impulses). When applied repeatedly, the ACRISS is especially suited to a process-oriented approach aimed at monitoring the dynamics of disengagement with its cognitive, affective, and behavioral concomitants. The concept of action crisis was originally developed with reference to the MAP (Gollwitzer 2012), which postulates that the deliberative (e.g., processing of expectancy-value information) and implemental (e.g., processing of information on the when, where, and how of goal implementation) mindsets preclude one another. However, research suggests that experiencing an action crisis is accompanied by a mindset shift, or a mingling of implemental and deliberate mindsets (Brandstätter & Schüler 2013, Herrmann et al. 2014, Vann et al. 2018). Moreover, an action crisis leads to a decrease in goal desirability and feasibility over time (Brandstätter et al. 2013, Ghassemi et al. 2017), a devaluation that presumably facilitates goal disengagement.

Apart from the cognitive characteristics of an action crisis (i.e., being torn between re-evaluating and pursuing a goal), which are not ideally suited for successful goal pursuit, an action crisis also poses a risk to well-being. For instance, action crises have been found to be accompanied by a decline in psychological well-being as well as in subjective (e.g., sleeping disorders, symptoms) and objective (e.g., cortisol release, recovery during physical therapy) health parameters (Brandstätter et al. 2013, Herrmann & Brandstätter 2013, Herrmann et al. 2019, Holding et al. 2017, Wolf et al. 2019). Moreover, individuals in an action crisis report lower subjective goal progress (Holding et al. 2017) and display lower objective performance (Brandstätter et al. 2013). Taking all these factors together, it is important to understand why it is not uncommon for action crises to last for weeks or even months (Herrmann & Brandstätter 2015). In a recent experience-sampling study that assessed goal-related doubts (one of the core features of an action crisis) five times a day over a period of ten days, the level of doubts fluctuated between and within persons (Ghassemi et al. 2021). Doubts increased (decreased) in response to negative (positive) goal-related events. More importantly, “when action crises are experienced, individuals are not constantly in the same state of mind. Rather, periods of doubt seem to follow upon periods of relative confidence” (Ghassemi et al. 2021, p. 161). This exactly represents the wavering of ups and downs—glimmers of hope and increased effort alternating with frustration and signs of resignation—that is responsible for the intractable nature of an action crisis.

GENERAL DISCUSSION

In this article, we have reviewed motivational theories and empirical research with regard to three main questions (for an overview, see **Table 1**): What makes people persist in pursuing a personal

Table 1 Overview of theories on persistence and disengagement

Theory	Core concepts and mechanisms
Focus on persistence	
Self-determination theory	Basic need satisfaction → autonomous versus controlled motivation
Goal setting theory	Specific, challenging goals → choice of strategies, regulation of effort
Motivation intensity theory	Desirability and feasibility of goal → mobilization of physiological effort
Dynamics of self-regulation	Interpretation of feedback as commitment versus progress
Mindset theory	Growth versus fixed mindset → learning versus performance goals, attribution of failure, perception of effort
Grit	Perseverance of effort, stability of interest → sustained effort and attention
Focus on persistence and disengagement	
Action control theory	Prospective versus failure-related action/state orientation → volitional efficiency, self-development
Personality systems interactions theory	
Model of action phases	Setting versus realizing goals → deliberative versus implemental mindset
Mental contrasting	Mentally contrasting positive fantasies about goal attainment with current obstacles → commitment to desirable and feasible goals
Implementation intentions	Mentally linking a situation (if) to a behavior (then) → salience of opportunity for action, automatization of behavior
Dual process theory of assimilation and accommodation	Assimilative versus accommodative mode → tenacious goal pursuit versus flexible goal adjustment
Motivational theory of life-span development	Developmental goals and developmental deadlines → goal engagement versus disengagement
Focus on disengagement	
Goal adjustment tendencies	Self-regulatory capacities of goal disengagement and goal reengagement → well-being, health
Action crisis	Doubts and conflict between holding on and letting go of a goal → mindset shift, performance, well-being

goal? What makes people disengage from pursuing a personal goal? What helps people decide whether to hold on or let go? We first summarize the answers that we have found to these questions before discussing unanswered research questions.

What Makes People Persist in Pursuing a Personal Goal?

It is almost needless to say that the theories we have reviewed take different perspectives on the question of what makes people persist in pursuing a personal goal. Some approaches focus on general processes and others on individual differences, some on intrapersonal factors and processes and others on the environment or situation, some on cognitive or affective processes and others on physiological ones. Despite this variety, quite a large number of theories refer either explicitly or implicitly to the two traditional motivational variables of value (i.e., desirability) and expectancy (i.e., feasibility). For instance, focusing on the characteristics of the goal itself, GST (Locke & Latham 1990) proposes that challenging, specific goals will bring about higher persistence than, for instance, vague, do-your-best goals. The notion of challenge suggests that goals involving a mediocre level of difficulty (expectancy) are ideal for persistent pursuit. In a similar vein, MIT (Brehm & Self 1989) proposes that people mobilize more effort as the level of difficulty associated with goal pursuit increases, but they do so only up to the point at which the costs of invested resources exceed the importance (desirability) of the goal. Hence, the greater a goal's importance is, the more likely a person will be to continue investing even in the face of serious difficulties.

If value or goal importance is an important factor in persistence, then it is logical to ask why people assign value to a goal. SDT (Ryan & Deci 2019) suggests that people are more persistent when they pursue a goal because it is inherently enjoyable or in line with their own interests and personal values than they are when the goal is pursued for the sake of an external reward or out of a sense of obligation. Recent research suggests that inherent enjoyment of goal pursuit is a better predictor of persistence than personal importance (Woolley & Fishbach 2016, 2017). Thus, the value of a goal can be reflected by different kinds of rewards (i.e., intrinsic, extrinsic) obtained at different points in time (i.e., immediate, delayed). Intrinsic/immediate rewards seem to be better drivers of persistence than extrinsic/delayed rewards.

We started out with the notion that personal goal pursuit is usually accompanied by difficulties or setbacks. Whereas MIT proposes that people mobilize effort in response to difficulties, other theories suggest that difficulties can either facilitate or undermine persistence depending on how they are interpreted or attributed. For instance, research on the dynamics of self-regulation suggests that negative feedback promotes persistence if it is interpreted in terms of lack of progress rather than lack of commitment (Fishbach et al. 2009). Likewise, research on mindset theory (Dweck 2007) indicates that people are more likely to persist if they attribute failure to a lack of effort rather than a lack of ability. Furthermore, people are more likely to make effort-based attributions of failure if they have a growth mindset than if they have a fixed one (i.e., if they believe that human attributes are malleable versus fixed). In addition, people with a growth, rather than fixed, mindset perceive effort as being more positive, because it helps them grow their abilities. Thus, the overarching goal of building competences seems to put difficulties and invested resources in a more positive light in terms of aiding persistence.

With regard to individual differences, research on the concept of grit suggests that some people have more perseverance and passion for long-term goals (Duckworth et al. 2007). As an aside, it is quite conceivable that passion is fueled by the satisfaction of basic needs and the autonomous regulation of behavior, as postulated in SDT. People who score high on the perseverance-of-effort component achieve a more effective mobilization of effort in the face of difficulties and sustained attention (Duckworth et al. 2007, Kalia et al. 2018, Silvia et al. 2013), which can become costly in situations in which flexibility is key (Kalia et al. 2018).

Other lines of research highlight the role of cognitive processes and propose certain deliberate self-regulatory strategies for promoting persistence (Achtziger & Gollwitzer 2018, Oettingen & Reininger 2016). For instance, mental contrasting, implementation intentions, and their combination (MCII) have been shown to be easy and flexible strategies that support persistence via different mechanisms. Mental contrasting helps people to commit to highly desirable and realistic goals, to prepare for possible difficulties, but also to distance themselves from those goals when the obstacles seem unsurmountable (Oettingen & Reininger 2016). Implementation intentions promote initiation and resumption of goal-directed action by automatizing the recognition and seizing of opportunities for action (Achtziger & Gollwitzer 2018, Moshontz & Hoyle 2021, Ntoumanis & Sedikides 2018).

In contrast to these cognitive approaches of self-regulation, PSI theory (Kuhl 2000, 2018) highlights the role of affective processes for persistence (and disengagement). The theory proposes that the flexible downregulation of negative affect and upregulation of positive affect not only foster persistence but also help people to learn from setbacks and to disengage from futile goal pursuits (Jostmann & Koole 2009). Although the theory proposes individual differences with regard to affect regulation (i.e., action versus state orientation), it also regards affect regulation as a general process that should allow people to solve the “stability-flexibility dilemma” (Brandtstädter & Rothermund 2002, p. 120).

What Makes People Disengage from Pursuing a Personal Goal?

Whereas theories with a focus on persistence are concerned with predictors and consequences, research and theorizing on goal disengagement is mainly concerned with the consequences of (un)successful disengagement (e.g., in terms of achievement, well-being, health; Brandstätter et al. 2013, Wrosch & Scheier 2020). As a result, only little is known about the factors that promote goal disengagement, among which self-focused rumination (van Randenborgh et al. 2010) and self-affirmation (Vohs et al. 2013) have been investigated.

Based on the important role of value and expectancy for goal persistence, it might be inferred that people start to question whether to hold on to or let go of a personal goal when the goal has become unfeasible and/or undesirable. Research on the concept of action crisis, however, suggests that low feasibility but not desirability predicts the experience of an action crisis (Ghassemi et al. 2017). In line with these findings, setbacks predict the onset of an action crisis (Bettschart et al. 2019, Ghassemi et al. 2021). Nevertheless, goal desirability plays a crucial role in successful disengagement, because “reducing the importance of a blocked goal” (Rothermund 2006, p. 225) is a prerequisite for goal disengagement and for the affective relief from it (Ghassemi et al. 2017).

An important question is, therefore, how people can reduce the desirability of a personal goal. There is some empirical support for Klinger’s (1975) idea that a phase of depression may help people to dissolve the commitment to a goal (Koppe & Rothermund 2017, Wrosch & Miller 2009). Perhaps, it is the loss of appetite associated with depression that reduces the desirability of formerly valued goals, while the interference with effort mobilization (Brinkmann & Gendolla 2008) may further reduce a goal’s feasibility. These findings suggest that depression plays a functional role in the process of disengagement rather than being merely epiphenomenal (Wrosch & Miller 2009).

In contrast to goal persistence, which can be fostered by intentional self-regulatory processes (e.g., MCII), disengagement from a goal seems to be a matter of automatic, nonconscious processes (Rothermund 2011). There have been some initial attempts to use MCII to successfully distance oneself from futile goals (Achtziger & Gollwitzer 2018, Oettingen 2012); however, so far these endeavors have focused on a change of means when difficulties arise rather than on the actual disengagement from the goal (Henderson et al. 2007).

What Helps People Decide Whether to Hold On or Let Go?

Virtually none of the theories described can provide a satisfactory answer to the crucial question of what helps people decide whether to hold on to a goal or let it go. One exception is the motivational theory of life-span development (Heckhausen et al. 2010, 2019) with its notion of developmental deadlines. Aside from serious resource constraints (e.g., health issues), developmental deadlines over a lifetime are “important markers in this process and guide individuals’ decisions for goal disengagement” (Heckhausen et al. 2010, p. 39). When lack of opportunities or resources make goal attainment impossible, the individual has no choice but to let go of an important endeavor. However, most of the times individuals have sufficient resources and plentiful opportunities to invest them. The question is therefore how the individual reaches a justified and solid decision about whether to keep investing in a goal or abandon it. This is, among other things, the direction in which future research and theorizing on persistence and disengagement needs to put more emphasis.

Open Research Questions

We discuss here several pressing research questions. First, how do individuals tackle “the regulatory challenge. . . [that] lies in identifying when goal pursuit is maladaptive while it is still ongoing

and the individual is fully engaged” (Heckhausen et al. 2010, p. 39)? Thus, how does one find clarity on whether to persist in or disengage from an endeavor if there is no objective indicator of unproductive persistence? As a matter of fact, the processes related to disengagement seem idiosyncratic and dynamic across time (Brandtstädter & Rothermund 2002, Ghassemi et al. 2021), something any explanatory approach would have to account for. The approach of Berkman et al. (2017), which conceives of self-control as value-based choice, seems highly promising in this respect. Continuing an endeavor and stopping it are to be viewed as two response options, each associated with tangible social and self-related attributes that determine the subjective value of both options. Moreover, value is seen as a dynamic concept that might fluctuate across time depending on cognitive (attentional) processes (Rothermund 2011) and that determines the action when an individual’s threshold of subjective value is reached. More generally, issues of persistence and disengagement could effectively profit from decision science—that is, from incorporating both deliberate and automatic processes. The latter seem all the more important in that some researchers hold that “we cannot disengage from blocked goals through a deliberate decision” (Brandtstädter & Rothermund 2002).

A second important issue concerns cognitive, affective, and behavioral processes that are related to disengagement and that might substantially differ depending on whether the goals fare high or low in a person’s hierarchy. A widely held assumption is that “when a goal occupies a central place in a person’s goal hierarchy it cannot easily be substituted by alternative options,” which makes disengagement particularly painful “because it involves a complete restructuring of the person’s motivational structure” (Rothermund 2006, p. 222). Actually, this hypothesis has never been tested empirically. Moreover, one might scrutinize not only the affective processes involved in detaching oneself from high- versus low-ranking goals but also the cognitive processes.

A third question centers on the fact that it is not enough to merely stop acting on one’s goal as long as one still remains cognitively and affectively engaged in it. Complete and successful disengagement needs cessation of behavior, emotional detachment, and cognitive deactivation of goal-related cues.

Fourth and last point, hardly anything is known about how people commit to new goals after a potentially painful disengagement: How do people fill the void that a relinquished goal has inflicted upon them? Some initial evidence suggests that positive affect, satisfaction with life, and purpose in life predict increases in an individual’s goal reengagement capacities in the long term (Haase et al. 2021). More research along these lines and research examining general processes of reengagement is necessary.

To sum up, we believe that the greatest potential for increasing our knowledge about persistence in and disengagement from personal goals resides in a finer-grained analysis of the dynamic processes associated with disengagement. This research would have a plenitude of fruitful connections with diverse fields of psychology (e.g., personal identity, cognitive and affective processing, neurobiology of action control).

SUMMARY POINTS

1. Historically, motivation psychology has strongly emphasized persistence. Only recently have researchers become interested in goal disengagement, as mirrored in the growing amount of pertinent research.
2. The determinants of persistence identified by these different theoretical approaches include forms of motivation (autonomous versus controlled), goal characteristics (i.e.,

specific, challenging), interpretation of goal-related feedback (progress versus commitment), individual differences (e.g., growth versus fixed mindset, grit), and the use of self-regulatory strategies (e.g., mental contrasting, implementation intentions).

3. Research and theorizing on goal disengagement have focused mainly on the consequences of goal disengagement rather than on its predictors. The consequences of successful goal disengagement include increased subjective well-being and better health-related outcomes, or the reverse if people do not manage to disengage from futile goals.
4. The determinants of goal disengagement are individual differences in goal disengagement/reengagement capacities and fluctuations in goal desirability and feasibility. Whereas changes in goal feasibility predict the onset of goal disengagement processes, changes in goal desirability seem to occur within the disengagement process, facilitating successful disengagement and affective relief afterwards.

FUTURE ISSUES

1. Given the importance of reacting flexibly to setbacks and difficulties during goal pursuit, either by stepping up or by letting go of the goal, it is very important to decide what is the right thing to do at any particular moment. In fact, hardly any research exists on the question of how individuals can determine whether to persist in or disengage from an endeavor if there is no objective indicator of (un)productive persistence. Future research ought to take deliberative and automatic processes into account, and this offers a marvelous opportunity for interdisciplinary collaboration between psychologists from different theoretical traditions.
2. Much remains to be discovered about the behavioral, cognitive, and affective processes involved from the very first appearance of disengagement as a viable option to complete disengagement.
3. Hardly anything is known about how people commit to new goals after disengaging from the previous ones, especially if a goal is located relatively high in one's goal hierarchy; that is, much remains to be understood about how individuals accept the loss and fill the void.

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