Persistence as Returning: An Integrative Review of Theory and Research on Continued

Goal Pursuit

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Abstract

Continued goal pursuit despite goal-opponent forces (*persistence*) has long been recognized as essential to achieving long-term goals. Though many causes and correlates of persistence and non-persistence have been identified, no theory offers a comprehensive account of how people persist and when errors in persistence (under-persistence and over-persistence) are likely to occur. This review offers an operational definition of persistence that serves as a framework for integrating existing theories and empirical findings. The act of persistence is defined as returning to goal pursuit following a recess. Consequently, variations in persistence arise from: 1) goal pursuit recesses and 2) re-engagement in goal pursuit. Implications for errors in persistence are explored, and areas needing additional study are identified.

Persistence as Returning: An Integrative Review of Theory and Research on Continued Goal Pursuit

An enduring idea in modern western society is that hard work - especially in the face of failures, doubts, and other setbacks – is inherently valuable and brings objective and subjective success (Son Hing et al., 2011; Weber, 2002). This idea is reflected in adages like “Winners never quit and quitters never win.” Despite the idea’s longevity and popularity, it is not strictly true. Social factors like race and socioeconomic status influence opportunities (e.g., for educational attainment) and limit access to the basic resources on which subjective well-being rests. Even in the context of a single goal, effort does not guarantee goal attainment, and goal attainment is not necessarily a function of effort. Some goals are unattainable and no amount of trying will result in achievement. Other goals are pursued automatically, requiring very little effort (Shah, 2005). Beyond being simplistic, endorsement of the idea that hard work brings success contributes to social inequality. People who believe that the world is fair, the system rewards hard work, and that people deserve what they get and get what they deserve are less supportive of social change and resource redistribution, even when such policies would be personally beneficial (Jost & Hunyady, 2005).

In psychological research, many different terms and phrases are used to describe the kind of hard work associated with success: persistence (e.g., Feather, 1962; Fox & Hoffman, 2002; Ryans, 1939), perseverance (e.g., Duckworth, Peterson, Matthews, & Kelly, 2007), behavioral persistence (e.g., Weiner, 1970), tenacity (e.g., Baum & Locke, 2004), task persistence (e.g., Battle, 1965), and even general terms like self-control, self-regulation, inhibition, effortful control, distress tolerance, and executive function. From here, *persistence* is the preferred term.

Despite the fact that efforts to understand the causes and consequences of persistence have produced a remarkable amount of data and theory, no comprehensive theory or framework specifically addresses the processes that give rise to persistence, broadly construed. Further, the extant research on persistence and related phenomena have not been synthesized in a single review. A thorough literature search for review articles¹ uncovered many narrow syntheses that described trait, state, or situational factors that influence persistence (e.g., “Effects of deliberate and implemental mindsets on persistence in goal-directed behavior,” Brandstatter & Frank, 2002), but only two reviews – each more than 50 years old - that focus on domain general persistence (task persistence, Feather, 1962; measurement of persistence, Ryans, 1939).

A major barrier to integrating research on persistence is inconsistent definitions and measurements of persistence. There is no consensus on what persistence is nor on the processes or behaviors that uniquely characterize persistence versus ordinary goal pursuit. As a result, research on persistence and related phenomena use varied operationalizations, which has resulted in very little accumulated knowledge about a) the processes that result in persistence and non-persistence and b) the etiology of errors in persistence (i.e., under persistence and over persistence).

Aim

The purpose of this review is to propose an operational definition of persistence that serves as a framework for integrating research on persistence and related phenomena. Persistence is typically operationalized as goal attainment - achieving a goal that took years of work - or as a

¹ Searches were conducted using the database PsycINFO. The keyword searches were limited to articles whose methodology was categorized by PsycINFO as either “literature review” or “meta-analysis.” Titles were searched using the keywords “persist*” OR “persevera*”. On 11/13/2016 this procedure yielded 214 results. The majority of articles focused on persistence in the context of a specific phenomenon rather than on persistence broadly construed (e.g., persistent pain; persistent delinquent behavior; academic persistence).

function of cessations in goal pursuit - not giving up on a frustrating puzzle. I argue that persistence is more precisely operationalized as returning to a goal following recesses in pursuit.

What is persistence?

A major barrier to integrating research on persistence is a lack of conceptual and definitional clarity. Persistence phenomena have been studied in many domains and disciplines, and are often defined in terms that are domain or task specific. For example, behaviorists define persistence as learned behavior that continues despite no longer being reinforced (Nation & Woods, 1980), and behavioral economists describe the persistence phenomena of escalation as continuing investment under conditions of failure (McCain, 1986). Feather, in his (1962) review, defined a persistence situation as one in which “a person is confronted with a very difficult or insoluble task” Individual difference researchers define persistence with more mechanistic detail, for example, as a dispositional need to complete difficult tasks (McClelland, 1976). Across variations of use, two basic features consistently emerge. Persistence is: 1) *continued* goal pursuit 2) in the context of one or more *goal-opponent forces*. Accordingly, individual differences in persistence are differences in the tendency or capacity to continue pursuing goals in the context of opponent forces. Goal-opponent forces can be anything that threaten goal progress or attainment, including the behavior of pursuit partners or opponents (Gollwitzer & Oettingen, 2016), setbacks or doubts (Duckworth et al., 2007), poor performance feedback and failure, costs of pursuit, goal difficulty, time pressure, and frustration (Klinger, 1975). They can be objectively observable or subjective, and features of the goal or setting, or related to individual qualities and traits.

Treatments of persistence conceptually narrow in a different way. Consistent with cultural belief in the inherent value of hard work, most research on persistence frames it as an

essentially adaptive behavior (Duckworth & Gross, 2014). Yet persistence can be maladaptive. Persistence leads to wasted time and resources when continued pursuit is unlikely to result in goal attainment (McGuire & Kable, 2016). Persistence is also counter-productive when goal attainment is not valuable enough relative to its costs (Baumeister & Scher, 1988; Klinger, 1975). Persistence can even be harmful; when people confront unattainable goals (e.g., when a health issue renders a goal unattainable) they suffer psychological and physical distress to the extent that they are unable to disengage (Wrosch, Scheier, & Miller, 2013). Furthermore, discontinuing goal pursuit can reflect self-regulatory goal management (Wrosch, Scheier, Miller, Schulz, & Carver, 2003). Goal pursuit resources are limited and it is sometimes necessary to disengage from a focal goal to prioritize other goals. A totally separate set of terms and phrases are used in research to describe maladaptive forms of persistence: escalation (Staw, 1981), rigidity (Wesley, 2002), nonproductive persistence (McFarlin, Baumeister, & Blascovich, 1984), and perseveration (Pyszczynski & Greenberg, 1987; Sandson & Albert, 1984). Additional terms explore adaptive disengagement: flexible tenacity (Gollwitzer, Parks-Stamm, Jaudas, & Sheeran, 2008), goal disengagement (Miller & Wrosch, 2007). Persistence is not an inherently adaptive response, and non-persistence is not an inherently maladaptive response.

Conceptualizations of persistence are also narrow in their treatment of non-persistence phenomena. Non-persistence is typically assumed to be caused by self-control failure (McGuire & Kable, 2016). However, non-persistence can result from many additional events and processes, which vary along a few key dimensions. Non-persistence can be deliberate (e.g., quitting) or non-deliberate (e.g., failing). In addition, non-persistence is often conceptualized as resulting from actions taken during goal pursuit (e.g., disengaging from goal pursuit, giving in to temptations). However, non-persistence can also be passive. Inaction can cause non-persistence,

both in ways that are unnoticed by the pursuer (e.g., forgetting), or in ways that are noticed and may be intentional (e.g., procrastinating, setting a goal aside temporarily). In this way, non-persistence can result from processes that occur *during* goal pursuit but also from processes that occur while pursuers are not engaged in goal pursuit. This view is consistent with several contemporary perspectives on self-control which distinguish the use of control processes and the mobilization of control processes (Hoyle & Davisson, 2016; Kotabe & Hofmann, 2015; Myrseth & Fishbach, 2009). Insufficient attention has been paid in the persistence literature to the role that mobilization processes play in determining persistence and non-persistence. Specifically, variation in persistence (and non-persistence) can be explained by monitoring the environment for pursuit opportunities and initiating pursuit once opportunities are identified.

Though they are treated separately, these adaptive and maladaptive varieties of persistence and non-persistence phenomena are products of the same self-regulatory system. The cognitive algorithms and motivational dynamics that lead people to achieve incredible feats of personal and societal significance also lead people to remain committed to failing courses of action (Staw, 1981). The processes that lead people to quit tasks that they could or should see to completion also enable people to disengage from doomed or unwanted goals (Brandtstädter & Rothermund, 2002). Theories that seek to explain persistence phenomena broadly should encompass adaptive and maladaptive varieties, and should account for non-deliberate, passive, and unnoticed varieties of non-persistence.

Previous research on persistence

Persistence has generally been studied within two isolated methodological traditions. First, persistence has been studied in survey research. In these studies, participants provide self-reports of their skill in persisting, relying on retrospective and heuristic characterizations of their

own behavior or ability. Five measures were identified that capture continued goal pursuit in the context of explicit or implicit opponent forces (see Table 1). None of the existing measures on persistence was specifically developed to measure persistence per se. Instead, items related to persistence emerged as factors during scale development of either broad personality measures or measures of traits related to persistence. Two measures of persistence come from Cloninger and colleagues' work on the temperament and character inventory (TCI; Cloninger, Przybeck, Svrakic, & Wetzel, 1994) and the tridimensional personality questionnaire (TPQ; Cloninger, 1987). Three additional measures related to persistence are sub-factors of other traits: impulsivity (Whiteside & Lynam, 2001); grit (Duckworth et al., 2007); and self-control (Hoyle & Davisson, 2016). Self-report measures of persistence focus on both short-term and long-term goals – some survey items focus on one versus the other, and some survey items are non-specific (e.g., “Once I start a project, I almost always finish it,” Whiteside & Lynam, 2001). Continued pursuit is generally operationalized in survey items as goal attainment (Duckworth et al., 2007), though is sometimes differentiated from attainment (Hoyle & Davisson, 2016). Goal-opponent forces are either specified (e.g., as difficulties, or doubts), implied by the passage of time, signaled by normative information, or not referenced.

Second, persistence is measured behaviorally. In these studies, participants are presented with difficult or impossible tasks of various kinds (sudoku, Barber, Grawitch, & Munz, 2012; mental math, Daughters et al., 2005; trivia questions, Henderson, Gollwitzer, & Oettingen, 2007; puzzles, Hoza, Pelham, Waschbusch, Kipp, & Owens, 2001; anagrams, Lench & Levine, 2008; bicycling task, Ntoumanis, Healy, Sedikides, Smith, & Duda, 2014). During the task, participants receive real (e.g., Hoza et al., 2001) or manufactured (e.g., Ntoumanis, Healy, Sedikides, Smith, et al., 2014) negative feedback on their progress or performance. Crucially, participants are

explicitly told that they may skip or terminate trials (or the entire task) at any time. Task-persistence has also been studied as discomfort tolerance. In these paradigms, participants complete one or more trials that involve tolerance of an uncomfortable, painful, frustrating, or otherwise aversive stimulus (e.g., carbon dioxide enriched air, ice water, a hot light bulb, a difficult puzzle, Zvolensky, Vujanovic, Bernstein, & Leyro, 2010). All of the above described behavioral measures of persistence focus on assigned (versus genuinely held) goals that are pursued in one continuous episode. Continued pursuit is operationalized as latency of terminating task, average or total time spent on impossible or failed trials, total task time, or as a binary measure of whether participants terminated the task before the experimenter intervened. Goal-opponent forces are assumed to be present rather than measured; goals are chosen which are intentionally difficult (e.g., aversive, time-limited) or known by the experimenters to be impossible.

Other studies ostensibly measuring task persistence operationalize it in ways that are inconsistent with the broad conceptual definition (i.e., continued goal pursuit in the context of an opponent force). Instead of engagement in pursuit, quality of pursuit is measured, for example as effort (e.g., time on task and amount written in response to a free-response task, Meriac, Thomas, & Milunski, 2015), willingness to disclose sensitive information (e.g., the number of items completed on a health survey, Jones et al., 2016), or task performance (e.g., performance of sober versus intoxicated participants on a circle-tracing task, Baer, Novick, & Hummel, 1995). Other studies measure difficulty of continued pursuit rather than continued engagement in pursuit, for example, as in raters' observations of a child's behavior during an assessment (Deater-Deckard, Petrill, & Thompson, 2007).

These existing self-report and behavioral approaches to operationalizing persistence are flawed and difficult to meaningfully compare. Crucially, neither the self-report nor the behavioral approach appropriately accounts for goal-opponent forces. In particular, insufficient attention is given to pursuers' idiosyncratic and subjective experiences of challenges. Consider two pursuers who successfully complete a task in the presence of an objective barrier to achievement. One pursuer experiences the barrier as a barrier, but prevails in spite. The other pursuer does not experience the barrier as such, and continues pursuit as if unencumbered. The first of these pursuers has demonstrated persistence, but the second has not. Persistence and related constructs (e.g., resilience) are contingent on opponent forces, so their measures should account for opponent forces specifically. Neither continued pursuit nor goal attainment is sufficient information to determine whether or not a pursuer was persistent. Similarly, discontinued pursuit is evidence of non-persistence only in the context of a barrier that is subjectively experienced as such.

	continued pursuit	discontinued pursuit
barrier subjectively experienced	persistence	non-persistence
barrier not subjectively experienced	not persistence	not persistence

Second, existing approaches to operationalizing persistence use imperfect measures of continued goal pursuit. Survey measures rely on self-report and conflate attainment of goals with

persistence, and non-attainment of goals with non-persistence. Behavioral measures capture persistence in artificially narrow settings where response options are binary (continue vs discontinue), and participants are assumed to hold exactly one goal (namely, the assigned focal goal).

As a result of these weaknesses, these measures provide an incomplete account of persistence. A fundamental problem common to both measures is that whether or not an action demonstrates persistence is judged post-hoc or otherwise varies as a function of time of assessment. For example, in studies of task persistence that define persistence as not quitting before the experimenter interrupts, whether a pursuer is considered persistent or not depends on the arbitrary time at which the experimenter interrupts pursuit. If these tasks were not terminated by the experimenter, there is some time (e.g., 1 hour) by which every participant would have disengaged. If these tasks were terminated immediately (e.g., after 1 second) every participant would have been engaged in the task and therefore persistent. Survey measures similarly define persistence against an arbitrary criterion. Persistence is often defined by the outcome of pursuit (i.e., attainment) rather than the quality of pursuit. Consider the following item: “I have achieved a goal that took years of work,” (Duckworth et al., 2007). Participants’ score on this item depends not on whether they have worked towards a goal for years, but on whether the goal was achieved. Thus, in self-report, continued pursuit is not measured objectively according to a specific operational definition and is instead approximated using heuristics (e.g., achievement = pursuit), and heuristic judgments. Self-report measures are subjective and imprecise measures of persistence.

A final issue with these operationalizations of persistence is that they cannot be meaningfully compared. There are no ecologically valid behavioral measures of persistence that

objectively capture the sort of persistence that people self-report (i.e., persistence in long-term goal pursuit). Consequently, there is no way to validly examine whether the skills that underlie task persistence also underlie persistence in long-term goals. As is, it is not possible to assess the extent to which observed discrepancies between task persistence and persistence in long-term goals are due to measurement error (e.g., inaccurate self-report) and the extent to which discrepancies reflect true differences.

Towards an operational definition of persistence

Before outlining my operational definition in more detail, it is important to establish four major points. First, based on the conceptual definition of persistence as continued pursuit in the context of goal-opponent forces, persistence and non-persistence are types of goal pursuit. Consequently, though goal qualities, qualities of pursuit, and qualities of opponent forces affect persistence, persistence is not conceptually limited to particular types of goals (e.g., concrete, behavioral goals), pursuits (e.g., deliberate pursuit), opponent forces (e.g., objectively present opponent forces), nor is persistence limited to particular types of pursuers. In fact, people who struggle with persistence (e.g., people who are impulsive) actually need to be more persistent in order to attain modest goals than their less impulsive counterparts. Standard conceptualizations of persistence neglect varieties of non-persistence that are sustained by non-deliberate processes (e.g., physical limitations, forgetting, limited time or money). A useful operational definition will capture all varieties of persistence regardless of qualities of goals, goal pursuit, opponent forces, and pursuer qualities. In addition, as a type of goal pursuit, persistence and non-persistence are independent of goal attainment. As such, persistence cannot be reliably determined post-hoc by attainment nor can non-persistence be determined by non-attainment. People can be persistent in

their pursuit of goals that they do not ultimately achieve and people can attain goals without persisting (i.e., if they have not encountered goal-opponent forces).

Second, most goals cannot be continuously pursued. People take intentional or strategic breaks in pursuit and are interrupted by endogenous and exogenous activity, particularly in long-term goals. A given goal cannot be pursued at any time, but instead can be pursued only when opportunities to pursue arise (Shah, Hall, & Leander, 2009). For many goals, pursuit is limited by opportunities and affordances or requires resources, settings, or partners that are not always available. Other goals by their very nature must be pursued in parts. Beyond this, people pursue thousands of goals in a day, and pursuit of any one goal must be balanced by pursuit of each other goal. For example, consider a goal to train for a marathon. This goal requires multiple pursuit episodes (training runs), and each episode is limited by the pursuer's physical capacity and is likely of a predetermined approximate length. The goal to train for a marathon may inform many choices and behaviors in daily life (e.g., waking up early, making healthy meal choices, going to bed early), but it will sometimes be prioritized beneath other goals (e.g., relationship goals, work goals, financial goals), or will be set aside. Thus, for most goals, pursuit is punctuated by periods of recess. Even within a single episode of active goal pursuit (e.g., a training run), pursuit is not necessarily continuous. Though active goals inhibit other goals and information unrelated to the focal goal (Shah, Friedman, & Kruglanski, 2002), pursuit is often derailed, for example, by cues in the environment (that suddenly brings to mind a neglected task), by pulls on exogenous attention (the buzz of a cell phone), by unexpected changes (a twisted ankle), and by subjective responses to pursuit. In addition, pursuit episodes are often book-ended by other goals (meals, scheduled meetings). Sometimes goal pursuit recesses are

unplanned interruptions, other times they function as strategic or necessary breaks in goal pursuit.

Third, our most valued goals tend to be abstract and ambitious (Duckworth & Gross, 2014). These goals can take years to achieve, and pursuit is necessarily dynamic. Motivation and commitment may wane during the lifespan of the goal. Other goals may take priority, complementary goals that facilitate the focal goal might be adopted, social relationships might help or hinder the goal, and changed life circumstances may render the goal irrelevant or unattainable. Throughout the life span of a goal, the means by which the goal is pursued may vary, as will qualities of pursuit (Henderson et al., 2007). For example, the deliberateness of goal pursuit is likely to change as time passes. At first, goal pursuit behaviors are executed with intention and sometimes with effortful control, but they slowly become easier and more automatic (Ouellette & Wood, 1998). Sometimes, goals become so automatic that a pursuit episode can be initiated, pursued, and accomplished non-consciously (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel, 2001). Other times, a goal pursuit behavior that is ordinarily automatic (e.g., brushing one's teeth) involves deliberate intentionality (e.g., when routine or environment are disrupted). As a result, in the context of our most meaningful goals, pursuit resists simple characterization; qualities of the goal vary (e.g., proximity, difficulty, motivations for goal pursuit), the means by which a goal is pursued vary, and goal pursuit qualities vary (e.g., automatic vs deliberate).

Finally, there are many different ways that pursuit (and non-pursuit) can be measured, and therefore there are many ways that continued pursuit can be measured in the context of persistence and non-persistence. In some settings, objectively measurable, continuous behavioral engagement in goal pursuit reliably signals that someone is pursuing a goal, and disengagement

from pursuit reliably signals non-persistence. In studies of task persistence, continuing to work on the task signals engagement in goal pursuit, and quitting the task signals non-persistence (i.e., disengagement from the goal). In other contexts, however, goal pursuit cannot be reliably operationalized as continuous behavioral engagement in pursuit. Behavioral pursuit of the goal and more subjective, abstract properties of pursuit (e.g., motivation, commitment), as well as cognitive means of pursuit (e.g., planning) can operate independently. As discussed previously, many goals are necessarily pursued via repeated episodes separated in time. For these goals, discontinued engagement in goal pursuit can and often does occur in the context of active, valued goals. Therefore, goal-related activity (e.g., commitment, motivation) can remain in the absence of behavioral pursuit (Ntoumanis, Healy, Sedikides, Duda, et al., 2014). The opposite is true for goals that are pursued automatically (e.g., brushing one's teeth). For these goals, behavioral pursuit can occur in the absence of commitment and motivation for the goal. In such instances, engagement in goal pursuit does not signal persistence. Therefore, a lapse in goal pursuit is an inadequate metric of non-persistence and behavioral engagement in goal pursuit is an inadequate metric of persistence.

Persistence-as-returning

In order to account for the variety and complexity of goal-pursuit, persistence is defined as returning to a goal following a recess in goal pursuit. As a result, persistence is a function of: 1) goal pursuit recesses and 2) re-engagement in goal pursuit, which itself is a function of goal activation and goal pursuit initiation.

Whereas in the conventional conceptual definition, people can only be persistent in the context of goal-opponent forces, in the *persistence-as-returning* model, goal-opponent forces are not explicitly operationalized. This avoids the challenging task of determining what constitutes goal-opponent forces during goal pursuit. In the proposed operational definition, goal-opponent forces affect persistence to the extent that they impede goal pursuit. By this definition, if an objective goal-opponent force is present, but goal pursuit is not interrupted, then continued pursuit is not persistence. However, if an objective goal opponent-force is present and goal pursuit is interrupted, then failing to re-engage in pursuit is non-persistence and re-engaging in pursuit is persistence. In addition, pursuers are not penalized for discontinuous goal pursuit; persistence is a function of whether or not pursuers return to goals, rather than whether or not their pursuit is continuous. The persistence-as-returning framework allows us to more precisely examine idiosyncratic opponent forces. For example, some people experience ephemeral, pervasive goal-opponent forces (e.g., impulsivity) that transform simple tasks into feats requiring persistence. The persistence-as-returning model accounts for such idiosyncrasies and enables

more precise identification of persistence. Without accounting for the degree to which an individual is experiencing frustration, we cannot know whether persistence on a frustrating puzzle is due to skill in pursuing despite frustration or due to a lack of frustration. Similarly, without accounting for the particular goal-opponent forces an individual has experienced, we cannot know whether someone who scores high on individual difference measures of persistence is truly resilient to goal barriers or whether they have simply experienced relatively few.

Variations in persistence

The persistence-as-returning model implies that factors influence persistence to the extent that they affect: 1) recesses in goal pursuit and 2) re-engagement in goal pursuit. Goal pursuit is conceptualized broadly here, and can be thought of in terms of behavioral metrics of pursuit engagement (e.g., attention, time on task) as well as self-reported qualities of engagement in pursuit (e.g., commitment). For each of the two main sources of variation in persistence, I outline goal qualities, pursuit qualities, and individual differences that affect each.

Goal pursuit recesses

Recesses in goal pursuit do not themselves signify non-persistence according to the persistence-as-returning model. However, the frequency and intensity of recesses in goal pursuit affect persistence. Recesses are generally of two types: *breaks* in goal pursuit and *interruptions* to goal pursuit. Breaks in goal pursuit occur after a goal pursuit episode is complete, for example after a sub-goal has been achieved. Interruptions to goal pursuit are internal or external processes or events that occur during a goal pursuit episode and end the episode or goal before it is complete.

Breaks in goal pursuit

Most goal pursuit is punctuated by breaks. Breaks in goal pursuit can be influenced by aspects of the goal and goal pursuit context, as well as the self-regulatory skills of the pursuer. All else being equal, more breaks in pursuit make persistence more challenging, and less likely by providing more opportunities to fail to persist. However, it is not necessarily true that variables associated with more breaks are also associated with less persistence. For example, people who are particularly skilled in self-regulation may break tasks up into smaller, sub-tasks. As a result, after each task is completed, they will experience a break in pursuit. However, people skilled in self-regulation are also more likely to return to pursuit following breaks, and therefore are more likely to persist despite frequent breaks in pursuit.

Goals differ in the extent to which they require or foster breaks. Some goals must necessarily be pursued in distinct goal pursuit episodes, for example because pursuit must take place at a particular time, or because pursuit opportunities are fleeting. Other goals can be strategically pursued in distinct episodes which optimize pursuit in some way. For example, though it is possible to cram for a final exam in one sitting, students benefit by practicing for a test in multiple, spaced study sessions ($d = 0.71$; Hattie, 2009). More difficult and complex tasks are also likely to require more breaks. Contextual goal qualities also affect pursuit. The more goals managed simultaneously, the greater the need to switch between goals. In addition, the extent to which multiple goals are in conflict affects breaks. Some goals cannot be pursued simultaneously with other goals. For example, it is possible to run on a treadmill and also watch television but not possible to swim laps and also watch television. However, while running on a treadmill and while swimming, it is possible to plan for other goals (e.g., make a list for the grocery store). This is not so for goals that require more focused attention (e.g., writing). The

relative importance of conflicting goals also influences how conflict affects breaks in goal pursuit, like which goal is broken into sessions and which is pursued in more condensed episodes.

Qualities of goal pursuit also affect breaks. For goals whose pursuit relies on limited resources, more intense pursuit requires more frequent breaks in pursuit to allow resources to replenish. For example, some goal pursuit is physically exhausting. For such goals, resting and recovering between episodes is necessary. In fact, for these goals, resting is so essential that it can be conceptualized as pursuit. Less efficient pursuit also affects breaks; the less that is completed during a given session, the more sessions are required to complete a task.

Individuals also differ in ways that make them more likely to take planned breaks in pursuit. Individual differences in self-regulatory skill affect breaks in goal pursuit, as described previously. People skilled in self-regulation manage multiple goals better, which is likely to involve planned breaks in pursuit in some contexts and completing goals during one continuous pursuit episode in others. In addition, they may conceive of goals in terms of sub-goals in ways that introduce more breaks in pursuit.

Interruptions to goal pursuit

Recesses in goal pursuit occur not just due to planned breaks, but also due to unplanned interruptions. Properly functioning self-regulatory systems manage goal pursuit, tracking the rate of progress and adjusting or interrupting pursuit when progress is insufficient (Carver & Scheier, 1990). Self-regulatory systems are sensitive to the expectancy that a goal will be achieved. When enough failure or negative feedback accrues, people experience an action crisis in which they contemplate disengaging from pursuit (Brandstätter & Schüler, 2013). When pursuers judge that continued pursuit will not result in attainment, they disengage (McGuire &

Kable, 2016). People disengage when they judge pursuit to be unhelpful to goal attainment, but also when they judge goal attainment itself to be unhelpful. Thus, self-regulatory systems are sensitive to both expectancy and the utility of a goal, intervening when goals are not useful or valued (relative to their costs) as well as when they are of low expectancy (Klinger, 1975; Carver & Scheier, 2005; Brehm & Self, 1989; Shah & Higgins, 1997). Different models propose more precise mechanisms by which self-regulatory systems make utility judgments and disengagement decisions (e.g., affect-based tracking; Carver & Scheier, 1990; Bayesian updating; Gilroy & Hantula, 2015).

Note that people can disengage from goal pursuit and from goals. Previous theoretical research on disengagement has not distinguished pursuit disengagement from goal disengagement. Though they are distinct, the same basic dynamics are likely to regulate both. However, disengagement from pursuit and disengagement from goals have different consequences for persistence. Though disengagement from pursuit may result in non-persistence, it may not. Sometimes, disengagement from pursuit (breaks in pursuit) can facilitate goal progress. For example, people are often better off disengaging from tip-of-the-tongue states (i.e., when information is temporarily unavailable but in memory). In these states, access to the desired information is temporarily inhibited and the best way to remember the desired information is to stop trying and return a few minutes later (Anderson, Bjork, & Bjork, 1994).

It is in the context of these dynamics of self-regulatory disengagement that goal qualities, pursuit qualities, and individual differences affect interruptions to goal pursuit. Interruptions to ongoing goal pursuit are not alone enough to merit the label of non-persistence (or a failure in persistence) in the persistence-as-returning model, but more interruptions provide more opportunities to fail to persist.

Goal qualities can affect disengagement and other types of goal interruptions in a number of ways. Broadly, variables that affect a goal's actual or apparent progress, attainability and value, and variables that affect how aversive pursuit is will affect interruptions to pursuit. For example, variations in feedback (e.g., valence, timing, specificity) affect disengagement decisions (for a detailed review, see Fishbach & Finkelstein, 2012). Goal difficulty affects disengagement, though in somewhat complex ways. Challenges can undermine autonomy, interfere with performance, and exhaust people but can also inspire more zealous goal pursuit (Koole, Jostmann, & Baumann, 2012).

Like goal qualities, goal pursuit qualities affect interruptions. The reasons that people are engaged in pursuit (i.e., their motivation) can affect their judgments of value, expectancy, and progress as well as their thresholds for disengagement. When pursuers have a "good" reason for pursuit, they maintain interest in pursuit and are less likely to stop pursuit, given the option (Sansone & Smith, 2000). Pursuers who have autonomous (versus controlled) reasons for pursuit are less likely to disengage from demanding goal pursuit (for a detailed review see Deci & Ryan, 2000). Aspects of the goal pursuit context can also affect interruptions. For example, chaotic and loud environments will present many more interruptions to pursuit than quiet and predictable environments, for example. Disengaging from pursuit and from goals is also affected by the availability of alternatives (Aspinwall & Richter, 1999) as well as past investments (i.e., sunk costs; Arkes & Blumer, 1985). Finally, goal pursuit itself can facilitate interruptions. Sometimes, people disengage from goals when they are making good progress. This can be maladaptive or it can suggest adaptive goal shifting and self-regulatory goal management (Fitzsimmons, Friesen, Orehek, & Kruglanski, 2009).

Individual differences also affect interruptions to pursuit. Individuals differ in their capacity to sustain goal pursuit over time (Hoyle & Davisson, 2016). People who score lower in self-control by continuation (Hoyle & Davisson, 2016), lower in grit (Duckworth et al., 2007), and those who score higher in impulsivity (Cloninger, 1987; Cloninger et al., 1994) will be more likely to experience interruptions in goal pursuit. In addition, other individual differences can have indirect effects on interruptions. Individuals differ in how they assess goal progress, goal expectancy, goal value, and the other variables that affect disengagement. For example, people who are more optimistic in their judgments are less likely to disengage from pursuit. People high in trait self-esteem continue to work on tasks despite failure both when doing so is beneficial to performance (e.g., Di Paula & Campbell, 2002), and when doing so is not (McFarlin et al., 1984). People also differ in their thresholds for disengagement. Some are more tolerant of slow progress, low expectancy, low value, and unpleasantness than others. For example, people's implicit beliefs about themselves and the nature of goal pursuit affect their tolerance for and response to negative feedback (Job, Dweck, & Walton, 2010). People also differ in the extent to which they monitor progress. Monitoring progress is a fundamental self-regulatory skill (Hoyle & Gallagher, 2015), and people who reliably accomplish goals (e.g., those high in conscientiousness) tend to pay more attention to how they are doing, and are more likely to disengage when necessary.

Re-engagement in goal pursuit: goal activation

The second major implication of the persistence-as-returning model is that persistence is a function of re-engagement in goal pursuit following recesses. Re-engagement in goal pursuit is in turn a function of goal activation – people cannot engage in pursuit if they are not thinking

about a goal – and goal pursuit initiation. Both of these can be influenced by goal qualities, pursuit qualities, and individual differences of pursuers.

Goal activation

Goal activation is a necessary but not sufficient requisite of re-engagement in goal pursuit. Goal activation (also called goal priming) is a state in which a goal and related information are relatively more available. Activation of goals prepares organisms to act (Bruner, 1957) and makes them more sensitive to goal-relevant opportunities. Goals can be activated by cues in the environment, as well as from memory and by spreading activation from related goals or means (Kruglanski et al., 2002).

Goal and pursuit qualities affect the propensity of a goal to be activated. Goals that are strongly associated with attainment means (i.e., the context, people, objects, actions associated with the goal) are automatically primed by those means (Shah, 2005). Strong associations are forged by recent and frequent prior activation (Higgins & King, 1981) as well as the number of means associated with the goal and the number of goals associated with the means (Shah & Kruglanski, 2000). Cues in the environment (aside from means) can also prime goals, and people can leverage this process to facilitate prospective memory (i.e., remembering an intention in the future, McDaniel & Einstein, 2000). The properties of these cues (e.g., their distinctiveness) similarly determine the strength of their connection to the to-be-remembered intention (i.e., the goal), and therefore determine their effectiveness (Rogers & Milkman, 2016). Many more goal qualities affect activation (for a detailed review see Förster, Liberman, & Friedman, 2007). Goal-related information is more accessible than non-goal information (Goschke & Kuhl, 1993), and some goals are more accessible than others. Unfinished goals, for example, are given cognitive priority (Zeigarnik, 1927), which can have both adaptive and maladaptive consequences (e.g.,

rumination, Martin, Tesser, & McIntosh, 1993). Information related to uncompleted goals is more available than information related to completed goals, as measured by lexical-decision latencies (Marsh, Hicks, & Bink, 1998). Goals associated with identity are more chronically available and more easily activated. The extent to which goals fulfil basic needs also affects activation. Anecdotally, many survivors of starvation report being consumed by obsessive food-related thoughts and fantasies. Goals are also sometimes inhibited, making them less likely to be activated. For example, during goal pursuit, unrelated goals are less cognitively accessible (for a detailed review of goal shielding see Shah et al., 2002).

Individual differences also affect goal activation. In particular, some individuals more carefully monitor their environment for goal-related opportunities (Myrseth & Fishbach, 2009; Kotabe & Hoffman, 2015). In addition, people high in trait self-control are thought to employ preventative strategies to avoid temptations that will be difficult to resist (Kotabe & Hofmann, 2015). Thus individuals can intentionally manipulate the extent to which a goal is activated depending on whether activation is desired or undesired.

Goal pursuit initiation

Once goals are activated, pursuit requires effortful initiation or enactment. Little attention has been paid to the unique challenges of initiating pursuit (Freitas, Liberman, Salovey, & Higgins, 2002), though research on procrastination, or the avoidance of initiation, offers evidence about conditions that make avoidance of pursuit likely. In addition, the properties of goals, pursuit, and pursuers that affect goal progress, attainment, and disengagement (e.g., expectancy, value, motivation) should similarly affect initiation of goals. Just as people tend to disengage from goals that are unrealistic, of low value, of high cost, uninteresting, and unpleasant, they are also less likely to initiate work towards those goals. Therefore, many of the

variables discussed in the context of disengagement affect initiation as well. In this section, I outline some unique ways in which goal qualities, pursuit qualities, and individual difference variables affect goal pursuit initiation.

Goal qualities known to affect pursuit, like proximity and specificity (for a review see Latham & Locke, 1991), likely affect initiation similarly. For example, it is easier to start a task related to a goal that is nearly complete than it is to start a task related to a goal whose attainment is more distant. In addition, the timing of pursuit consequences matters in determining how likely someone is to initiate pursuit. Consistent with the idea that a goal's value affects initiation, and consistent with the tendency to undervalue distant rewards, people tend to procrastinate when the rewards and consequences of pursuit are far off (Steel, 2007). Though goals do differ in the amount of effortful control required to initiate them, very little else is known about what specific goal qualities affect initiation.

Qualities of goal pursuit – such as the context in which pursuit occurs - affect initiation as well. If someone is engaged in pursuit of a different goal, initiation often requires inhibiting one's current behavior (Hoyle & Davisson, 2016); getting out of bed in the morning requires inhibiting the temptation to stay in bed. The subjective experience of pursuit also affects how likely people are to initiate pursuit. People tend to procrastinate tasks that are unpleasant (Steel, 2007). People are likely to engage in pursuit that is enjoyable or that results in immediate rewards, even when there are costs. In fact, the primary function of enjoyment is to motivate goal-directed behavior (Ferguson & Bargh, 2004). Other aspects of the goal pursuit context affect initiation. Sometimes, we'd like to pursue a goal, but cannot, either because we are engaged in another goal or because means are not available. Individuals also differ in ways that affect initiation of goal pursuit. Hoyle and Davisson (2016) recently identified that the capacity

for inhibition and initiation are independent; some people have a particularly hard time getting started on tasks.

Persistence and automatic goal pursuit

Much goal-directed behavior – from simple tasks like brushing teeth to complex tasks like driving home from work – can be activated and accomplished without effortful control (Dijksterhuis & Aarts, 2010). Repetition of goal pursuit in the same context fosters habit-formation, a process by which many routine goal-pursuit behaviors automatized (Ouellette & Wood, 1998). Habitual and automatic goal pursuit are fundamentally different from effortful goal pursuit in that they do not require behavioral control (Neal, Wood, & Drolet, 2013). In this sense, habits do not constitute goal pursuit. Therefore, automatic behavioral engagement in goal-directed behavior (e.g., brushing one's teeth) is not re-engagement in goal pursuit, nor is it demonstrative of persistence. Similarly, when behaviors have unintended consequences or facilitate an un-held goal (e.g., commuting by bike can incidentally result in weight loss), behavior that appears to be goal pursuit is not demonstrative of goal pursuit nor of persistence. However, people can be persistent in the context of a goal whose pursuit is typically habitual. As established previously, long-term goal pursuit is complex and dynamic and can involve both automatic and deliberate means. Following a break in habitual goal pursuit (e.g., when on vacation and removed from the cues ordinarily associated with habitual goal pursuit), effortful initiation of goal pursuit is demonstrative of persistence. In addition, the act of re-establishing a habit after a lapse is demonstrative of persistence.

Implications for errors in persistence

Persistence and non-persistence are types of goal pursuit and are not inherently adaptive or maladaptive. However, each can be maladaptive to the pursuer. The persistence-as-returning framework can help us understand different reasons that people persist too long (over-persistence or maladaptive persistence) or disengage prematurely (under-persistence or maladaptive non-persistence). Specifically, there are two major sources of variation in maladaptive persistence and non-persistence: recesses in goal pursuit and re-engagement in goal pursuit.

Errors related to recesses in goal pursuit

Errors in persistence can be caused by variations in recesses in a number of ways. First, breaks in recess can affect errors in persistence. The more breaks there are in goal pursuit, the greater the opportunity for non-persistence (i.e., not returning to the goal). Therefore, more breaks can result in passive under-persistence, or premature disengagement. However, it is also possible that more breaks can result in continued goal pursuit beyond the point of use, due to

habit formation. For some goals, pursuit occurs in regular intervals that lend themselves to habit formation. For these goals, when habits form, they may continue despite changes in context and motive and render them counter-productive (Neal, Wood, Wu, & Kurlander, 2011).

Interruptions (e.g., disengagement from goal pursuit) are another sources of errors in persistence. Specifically, errors in the regulatory processes that produce disengagement will result in errors in persistence. In particular, errors in feedback sensitivity will result in errors in persistence. For example, if people ignore or misinterpret consistent negative feedback and fail to disengage, they will be over-persistent. Some people (e.g., perfectionists, O'Connor & Forgan, 2007) struggle to recognize when goals have been sufficiently achieved, and therefore over-persist past the point of goal attainment. Other times, types of goals (e.g., avoidance goals) lack the specificity needed to judge attainment and can facilitate over-persistence. Under-persistence can result from inappropriate feedback processes as well. If people are hypersensitive to feedback that they are not making progress or that progress has slowed, they will be under-persistent and disengage from a goal that is attainable. These same dynamics should apply regardless of the mechanism of disengagement (i.e., whether signals related to attainability, value, affect, cost, or fatigue are ignored or over-interpreted). Furthermore, when people fail to monitor progress on any of these important metrics, they are likely to err.

Errors related to re-engagement in goal pursuit

Errors in persistence can be caused by variations in re-engagement in goal pursuit. Sometimes, errors in persistence will result from goal activation. Over-persistence largely occurs in chronically active goals, particularly those with low barriers to initiation (e.g., where pursuit is well-learned or strongly associated with pleasure). For example, one reason that compulsive behaviors associated with eating disorders (e.g., bingeing and purging) are difficult to stop is that

they are associated with goals and means that are essential to survival and therefore chronically activated. Similarly, among recovered substance abusers, relapse is a sort of over-persistence in that it is an unwanted or harmful continuation of goal-directed behavior (Köpetz, Lejuez, Wiers, & Kruglanski, 2013). A source of errors in over-persistence among both recovered and current addicts is the activation of use goals; cues associated with substance use trigger unintentional and unwanted use and avoiding cues is an effective strategy to avoiding use (Bernheim & Rangel, 2004). Goal activation can also lead to under-persistence; goal failures are due in part to failures to recognize opportunities for goal pursuit (e.g., Myrseth & Fishbach, 2009). Anecdotal evidence suggests that sometimes people fail to achieve goals because they forget about the goal entirely (e.g., in New Year's resolutions). More research on such passive errors due to (lack of) goal activation is needed.

Errors in persistence can also be caused by variations in the initiation of goal pursuit. Though habitual goal pursuit is not considered persistence in this framework, compulsive habitual behaviors are conceptually similar to over-persistence. These can be thought of as resulting from automatic initiation of goal pursuit following activation (e.g., in addictions, Köpetz et al., 2013). Under-persistence can also be traced to errors in initiation. People can under-persist by failing to initiate pursuit (e.g., procrastination, Steel, 2007). Such failures can be avoided by encouraging initiation (e.g., via the use of precommitment devices, Ariely & Wertenbroch, 2002). An interesting possibility suggested by the persistence-as-returning model is that some instances of non-persistence are caused by intentional delays in goal pursuit. Pursuers may choose not to initiate pursuit intentionally, correctly or incorrectly thinking that they are setting the goal aside temporarily and will resume pursuit in the future.

Discussion

The ability to continue goal pursuit despite goal-opponent forces like doubts, failures, and setbacks is a culturally valued skill. People who are skilled in persistence enjoy success in a broad range of domains (Eskreis-Winkler, Gross, & Duckworth, 2016). People who struggle with persistence seem to suffer as a result. Low scores on the UPPS-P (Whiteside & Lynam, 2001), which measures individuals' capacity to continue goal pursuit without interruption are associated with obsessive thoughts and behaviors (Zermatten & Van der Linden, 2008). People who continue to work on difficult, frustrating, and impossible tasks tend to do better in unrelated domains than those who give up. For example, cigarette smokers who are more skilled in behavioral task persistence are more likely to be successful in their quit attempts. Performance on a breath-holding task (endurance in seconds) correlates with successful abstinence from cigarettes during a four-week cessation course ($r = .44$, Hajek, Belcher, & Stapleton, 1987), and continued effort on a tedious and confusing shape-tracing task predicts sustained abstinence over a 12-month period (for each additional second endured, odds of relapse decrease by .2%, Brandon et al., 2003).

Though individuals' capacity for persistence is consequential, little is known about the specific behaviors that constitute persistence. No previous theory or framework specifically addresses persistence (including errors in persistence) and integrates extant evidence and theory. In addition, no theory of persistence specifically addresses the mechanisms by which goal pursuit is sustained in the long term (i.e., involving multiple sessions over time). As a result, little is known about why people fail to persist and why people make errors in persistence: continuing goal pursuit too long (over-persistence) and terminating goal pursuit prematurely (under-persistence).

The present review proposed an operational definition of persistence that is useful for a) integrating previous research on persistence and related research on goal pursuit processes more broadly and b) understanding why people fail to persist and where they go wrong when they make errors in persistence. Persistence is defined as returning to a goal following a recess. Consequently, people fail to persist when they fail to return to a goal after their pursuit is interrupted or after a pursuit episode ends. People may fail to return to a goal because they forget (i.e., the goal is not activated) or because they cannot or do not initiate pursuit. Pursuit may be interrupted by intentional disengagement from pursuit or from a goal, or pursuit may lapse because the goal or goal context requires that the goal be pursued in distinct episodes separated in time. In addition, errors in persistence can be due to excessive or insufficient breaks in pursuit, under or over activation of a goal, and absent or overzealous pursuit of activated goals.

A major advantage of this framework is that it accommodates persistence in long-term goals. In long-term goals, successful acts of persistence contain interruptions and “crises.” In one study, one hundred twenty-nine runners completed surveys as they ran a marathon. Though none of the participants disengaged from pursuit (i.e., they all completed the marathon), the majority of participants reported that they wanted to quit or that they consciously deliberated quitting (Schüler & Langens, 2007). In addition, overcoming addictions typically requires multiple failed attempts (e.g., cigarette addiction, Vangeli, Stapleton, Smit, Borland, & West, 2011). The persistence as returning framework accommodates these lapses in pursuit.

Limitations

The persistence-as-returning framework provides a more specific, useful definition of persistence that can be used to interpret and integrate existing research and that can guide future research on persistence. However, it leaves some definitional issues unresolved. In the context of

continuously pursued goals, recesses in pursuit are difficult to define conceptually and measure concretely. Future research should explore methods of capturing lapses or downward trends in goal pursuit using both objective measures (e.g., eye-tracking), as well as self-report. In addition, the persistence-as-returning model relies heavily on the goal construct and thus inherits its definitional problems. In particular, the construct of a goal is unstable across contexts and perspectives (e.g., a focal goal can always be conceptualized as a means to a higher-order goal). This instability makes it difficult to conclusively identify persistence. For example, if someone abandons a weight loss goal and begins again months later, have they demonstrated persistence by re-engaging in the old goal, or have they set a new goal? How do changed means of pursuit affect persistence? If someone abandons one diet and starts another, have they demonstrated persistence with respect to their weight-loss goal?

Remaining questions

Another advantage of the proposed framework is that it elucidates two central topics that remain relatively unexplored in the persistence literature. First, it helps us understand and prevent errors in persistence. Until now, our understanding of errors in persistence has been somewhat unsophisticated. Consequently, there was little theoretical basis for interventions that target errors in persistence. The current framework suggests that there are multiple sources of errors of persistence. Interventions that target specific sources of errors will be most effective. For example, someone who is not persisting because they do not recognize opportunities for goal pursuit (which they might experience as forgetting about their goal) should use strategies that help activate the goal (e.g., reminder cues, Rogers & Milkman, 2016). Someone who fails to take advantage of pursuit opportunities despite recognizing them should use different strategies (e.g., precommitment devices, Ariely & Wertenbroch, 2002). Interventions targeted at over-persistence

(e.g., addiction) might be most effective if focused on lengthening recesses rather than on engaging in goal pursuit (i.e., inhibition), by intervening before the goal is activated and the pursuer is engaged in a self-control conflict.

The persistence-as-returning model also helps us understand individual differences in persistence. Understanding the etiology of skill in persistence is valuable in identifying mechanisms of persistence and in identifying possible liabilities associated with skill in persistence. Though skill in persistence is often adaptive, numerous neurological and psychopathological conditions are characterized by over-persistence in behavior or thought (Köpetz et al., 2013). In the non-pathological, trait persistence can also be maladaptive. Persistence can operate on maladaptive goals, enabling people to harm themselves and others (Eskreis-Winkler et al., 2016). For example, people who engage in non-suicidal self-injury with high scores on the UPPS-P, indicating skill in sticking with tasks that are difficult or boring, are more likely to attempt suicide with clear intent to die than those with low UPPS-P scores (Anestis & Selby, 2014).

There are two major possibilities regarding how people might come about skill in persistence. First, skill in persistence may be homogenous. A specific set of tendencies or abilities may enable people persist. If so, our framework suggests that people who demonstrate persistence might be particularly skilled in managing recesses in goal pursuit (e.g., shifting between goals skillfully) and skilled in re-engaging in goal pursuit (e.g., recognizing opportunities for pursuit, initiating pursuit once opportunities are recognized). Second, it is also possible that the mechanisms of consistent skill in persistence are more heterogeneous. Some people may be skilled in persistence despite deficits in fundamental skills or despite tendencies (e.g., impulsivity) that introduce interruptions to pursuit. If this is the case, people who are

skilled in persistence may have a motivational advantage that drives them to negotiate their particular skills and deficits in service of their goals. Consistent with this view, the perseverance subscale of grit correlates strongly to the extent to which people are driven to seek meaning and engagement (Culin, Tsukayama, & Duckworth, 2014). People who are skilled in persistence may want to persist more, or may find more value in persisting.

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Table 1. Self-report measures of persistence.

Measure	Original Source	Description	Selected Items
UPPS Impulsivity scale - (lack of) Perseverance subscale	Whiteside & Lynam (2001)	The ability to remain focused on a boring or difficult task	“Unfinished tasks really bother me.” “I tend to give up easily.” (R) “Once I start a project, I almost always finish it.”
Grit- Perseverance subscale	Duckworth et al. (2007)	Passion and perseverance for long-term goals	“I am a hard worker.” “I have overcome setbacks to conquer an important challenge.” “I finish whatever I begin.”
Capacity for Self-Control - Continuation subscale	Hoyle & Davission (2016)	The ability to maintain self-control over time	“When I commit to doing something difficult, I see it through to the end.” “I find it hard to continue doing something I don’t want to do” (R) “After I have started a challenging task, I find it easy to stick with.”
Temperament and Character Inventory (TCI) - Persistence subscale	Cloninger et al., (1994)	Measure of trait task-persistence (e.g., Kalman, Hoskinson, Sambamoorthi, & Garvey, 2010)	“I am usually so determined that I continue to work long after other people have given up.” “I usually push myself harder than most people do because I want to do as well as I possibly can.”
Selected items from the Tridimensional Personality Questionnaire (TPQ)	Cloninger (1987)	Measure of trait task-persistence (e.g., Brandon et al., 2003)	“I will keep trying the same thing over again even when I have not had success the first time.” “I will often continue to work on something, even after other people have given up.”