# Chapter 13 Motivations: The Entrepreneurial Mind and Behavior

Alan Carsrud, Malin Brännback, Jennie Elfving, and Kristie Brandt

## 13.1 Assumptions and a Brief History

In this chapter we address the complex roles that "motivations" play in entrepreneurial cognitions, intentions, and behaviors and suggest various models and theories that might be useful in the study of entrepreneurial motivations. We do not assume that somehow entrepreneurs are "unique" in their type of motivations from non-entrepreneurs, as did many earlier entrepreneurship researchers. We do, however, believe that entrepreneurial motivations impact entrepreneurial activity and the success of their ventures as demonstrated by Carsrud et al. (1989) and Elfving (2008). We also believe that the individual entrepreneur's motivations can directly impact the performance of their firm, even beyond the start-up phase. That impact, however, will be complex and moderated by a number of factors, including those found in a resource-based view of the firm. We assume that how motivations are expressed and the foci of those motivations differ for entrepreneurs in various situations and at different stages of their venture's development.

While we believe emotions are a form of motivation and are clearly related, we refer the reader to the chapter in this book directly addressing emotions and their

A. Carsrud (⋈) • M. Brännback

Åbo Akademi University, School of Business and Economics,

Henriksgatan 7, 20500 Åbo, Finland

e-mail: dralancarsrud@hotmail.com; malin.brannback@abo.fi

J. Elfving

Centria University of Applied Sciences, Talonpojankatu 2, Kokkola 67100, Finland

e-mail: jennie.elfving@centria.fi

K. Brandt

Åbo Akademi University, School of Business and Economics, Henriksgatan 7,

Åbo 20500, Finland

e-mail: kristiebrandt@hotmail.com

© Springer International Publishing Switzerland 2017 M. Brännback, A.L. Carsrud (eds.), *Revisiting the Entrepreneurial Mind*, International Studies in Entrepreneurship 35, DOI 10.1007/978-3-319-45544-0\_13

role in entrepreneurial cognitions and behaviors. In addition, while traditional researchers in emotion would not consider "passion" an emotion, the concept of "entrepreneurial passion" is obvious and often referred to by anyone who has interacted with entrepreneurs. Thus, there is a chapter in this book on passion as well.

The study of motivation can be traced to the early works of Freud (1900, 1915) in which his use of the term "instincts" operates a great deal like "drives" or "motivations" (Deutsch and Krauss 1965). For Freud (1915), "instincts" were persistent pressures to change an internal state by external activities, often via "unconscious mental activity" (Deutsch and Krauss 1965). To Freud, instincts (or motivations) influenced behavior on both conscious and unconscious levels.

Given that one's most fundamental drivers are biologically based, it follows that obtaining what is necessary for survival is a strong human motivation. That basic motivation is inherent in all humans and makes achieving success and avoiding failure a necessity. Since the beginning of time we, as the collective human race, are motivated to survive. In its most basic form, motivation, as defined by Maslow (1946), is the human drive to satisfy the body's need for survival, with its highest form reflected in achievement motivation (Ach). Achievement motivation is a research stream initially fostered by Atkinson (1957, 1964). A unidimensional approach was taken by McClelland and Winter (1969), and a multi-dimensional approach was also taken by Spence and Helmreich (1978) and Carsrud et al. (1989). For example, Atkinson (1957, 1964) builds his model of achievement motivation on his prior theory, levels of aspirations (clearly something entrepreneurs often do and yet which few entrepreneurship researchers have directly studied). Could aspiration level explain why some people choose to build high growth firms and others choose life-style firms? His theory addresses the tendency of individuals to both achieve success (creating a successful venture) and avoid failure (starvation). We will continue to discuss achievement motivation later in this chapter.

#### 13.2 Motivations to Survive Versus Motivations to Grow

Survival-oriented motivation can be seen in the "necessity entrepreneur" identified in the Global Entrepreneurship Monitor (GEM) studies (Reynolds et al. 2002). This type of entrepreneur is more concerned with avoiding the failure of starvation than other types of entrepreneurs. We have evolved a long way from the days of cavemen (and cavewomen) and in our modern world, we obtain what we need for survival by working to obtain the monetary means required to purchase what we need and want, thus the evolution of motivation. Most people do this by working as an employee for a corporation or other types of organization. They have a particular role to play within that setting and specific tasks they must fulfill in order to be rewarded a predetermined amount of money (hence work or task motivation) (Pinder 1984, 1998). Whether or not the individual likes the job that he or she must perform or the company in which he or she works can sometimes take a backseat to the more pressing issue of making money in order to support one's self and family.

However, not everyone fits into the role of an employee working for another person within an organization. Some decide to blaze their own trail through the

business world as entrepreneurs, hence the "opportunistic entrepreneur" of the GEM studies (Reynolds et al. 2002) who is focused on the achievement of success through exploiting an opportunity for some form of gain. Here the intention of the entrepreneur and the pursuit of the recognized opportunity are critical. Obviously, the question of what motivates the pursuit of an opportunity should be of interest to researchers, entrepreneurs creating ventures, and policy makers wishing to foster entrepreneurial behaviors. Researchers have spent a great deal of time looking at opportunity recognition, but not the motivation behind the search. For more on opportunity, the reader is referred to the chapters in Part IV.

Clearly, commercially oriented entrepreneurs are working to earn money, power, prestige, and/or status. But these might not be the only "rewards" or "motivations" they are striving for, as anyone working with either social or biotechnology entrepreneurs will attest to. The search for a disease cure may be a far more powerful motivator than making money, especially if it is the entrepreneur's child that has the disease. Entrepreneurs have the same motivations as anyone for fulfilling their needs and wants in the world; however, they use those motivations in a different manner—they create ventures rather than just work in them.

In this chapter, we examine the role of various types and theories of motivation in conjunction with cognition, intentions, and behaviors of entrepreneurs. We continue to highlight the fact that entrepreneurs do not necessarily possess motivations that are distinct from others, but rather it is how they use those motivations that help determine the ultimate success or failure of their ventures. This chapter assumes that there is a complex interactive model of entrepreneurial cognitions and behaviors that is consistent with the nature of the other chapters in this book, particularly the chapters on locus of control, intentions, emotions, and passion.

We still have much to learn about the entrepreneur, especially with respect to the role of motivation in the entrepreneur. The sociologist Homans (1961) proposed the motivational principles of hedonism and the theory of the "economic man," which still have relevance to the study of mankind, especially the entrepreneur. The utilitarian emphasis on the role of "reward," "drive reduction," "pleasure," "reinforcement," or "satisfiers," as proposed by psychological theories of motivation in learning (Deutsch and Krauss 1965), can still inform the entrepreneurial researcher and guide their research endeavors. McClelland (1985) summed up the role of motives, values, and skills as those factors that determine what people do in their lives. We believe that entrepreneurship researchers have yet to adequately tie those three factors together although social values clearly impact the development of social ventures and not-for-profit organizations.

#### 13.3 Drive Theories and Incentive Theories

Traditionally, motivation has been studied in order to answer three kinds of questions: (i) What activates a person? (ii) What makes him, or her, choose one venture over another? and (iii) Why do different people respond differently to the same stimuli? These questions give rise to three important aspects of motivation: *activation*,

selection-direction, and preparedness of response (Perwin 2003). Existing motivational theories can be divided roughly into drive theories and incentive theories. Drive theories suggest that there is an internal stimulus, e.g., hunger or fear, driving the person and that the individual seeks a way to reduce the resulting tension. The need for tension reduction thus represents the motivation (Freud 1924; Murray 1938; Festinger 1957). On the other hand, incentive theories emphasize the motivational pull of incentives, i.e., there is an end point in the form of some kind of goal, which pulls the person toward it, such as achievement motivation in the entrepreneur (Carsrud et al. 1989). In other words, in drive theories the push factors dominate, while in incentive theories the pull factors dominate. The cognitive approach to personality psychology has traditionally emphasized the pull factors and the incentive nature of motives (Perwin 2003).

## 13.4 Diversity and Complexity of Motivational Theories

Fisher (1930) noted that there are fundamentally two schools of motivational theories, one based in economics and the other rooted in psychology. These have been in conflict with each other for decades. Recently, Steel and König (2006) and Wilson (1998) called for the use of *consilience*, which they describe as the linking of facts and fact-based theory across disciplines to create a common framework between the two schools. We also see this lack of *consilience* in entrepreneurship research with respect to its view of the entrepreneur. This might account for the lack of progress in our understanding of the entrepreneurial mind and how it ties to the venture creation process. If the multi-disciplinary nature of entrepreneurship research is to return to looking at motivation as an explanatory factor in entrepreneurial behavior, it must also bridge the wide variety of theories of motivation and tie them to environmentally oriented theories like RBV (Penrose 1959). Likewise, any motivational and resource-based models adopted by entrepreneurship researchers must also have some temporal components as there is an inherent time dimension in opportunity recognition and firm creation.

Entrepreneurship could become indebted to the recent work of Steel and König (2006) on motivation. They have brought together various theories of motivation as applied in economics, management, and psychology (with a time dimension) into what they call temporal motivational theory (TMT). In addition, Locke and Latham (2002, 2004) have married task motivation and goal setting in their recent commentaries. What is interesting is that these two approaches to motivation have yet to be adopted by entrepreneurship researchers. This is despite the fact that entrepreneurs are both time constrained, as in Steel and König's (2006) model, and goal focused, as in the Locke and Latham (2002, 2004) approach. Perhaps it is time for the research community to take a new look at this reality.

Another advantage of both of these theoretical approaches is that they can also be used to look at group motivation and in turn be used to study entrepreneurial teams. We take the view that there is cognitive control of motivation as well as motivational impact on cognitions, building on the work of Freud (1900, 1915),

Zimbardo (1969), and others. This concept of reciprocal effects is important in understanding entrepreneurial motivations and has also been shown to be true for entrepreneurial intentions (Brännback et al. 2007).

## 13.5 Motivation, Cognitive Dissonance, and Risk

The complexity of motivations is exhibited in cognitive dissonance and risk avoidance, both of which are strong motivators for humans. Research on cognitive dissonance and the need to avoid failure (Cohen and Zimbardo 1969) can be used to explain why entrepreneurs will often do anything to avoid failure in their venture, such as persisting when any non-entrepreneurs would have quit. It is important to remember that cognitive dissonance has much to offer the study of entrepreneurs as well as the behavior of venture capitalists and angel investors.

For example, people high in success motivation, who voluntarily commit themselves to a task promising failure (this would be true of most opportunistic entrepreneurs aiming at high growth firms), will show greater cognitive dissonance the greater the probability of failure (Cohen and Zimbardo 1969). To reduce dissonance, the entrepreneur would be expected to either lower their success motivation or their motivation to avoid failure. It is possible that entrepreneurs use very different processes of dissonance reduction than say, managers. It is interesting that this kind of research has not been done to see which dissonance reducer the entrepreneur would enact. Furthering this point, Atkinson (1957) has shown that these two motivations are separate and have different implications for behavior.

However, when risk was previously studied by entrepreneurship researchers, this distinction seems to have been forgotten. Risk was looked at as a risk-taking propensity, or a personality trait, and not seen as two parts of a motivational paradigm that included dissonance. Even the recent commentaries on risk-taking behavior (Lumpkin and Erdogan 2004) (Segal et al. 2005) have not used this approach. Atkinson (1957) also saw the need for success as a basic motivational process to feel competent and self-determining in relation to one's environment. This will later be discussed in more detail in conjunction with multi-dimensional achievement motivation.

Building on Atkinson (1957) and Deci (1975), further discussion on the relationship between success and risk can include the motivation of success  $(M_s)$ . This motivation is constant in an individual and has an incentive value  $(I_s)$ , with the achievement of a difficult goal (such as starting a new firm) having more incentive value than a less difficult goal. The incentive value is equal to one minus the probability of success  $(I_s+1-P_s)$ . Thus, the tendency to approach starting a firm  $(T_s)$  would be seen as

$$T_{\rm s} = M_{\rm s} \times P_{\rm s} \times I_{\rm s}$$
.

Therefore, a person with a strong tendency to start a venture which is moderately risky will be the most pronounced in entrepreneurs with a high motive for success.

Another motivation, fear of failure (F), is also present. That is, the fear of failure is a motive to avoid such failure. There are also expectancies about failure and an incentive value for failure as well. The motive to avoid failure (F) is relatively stable (Deci 1975) and the emotions of shame and embarrassment accompanying failure as an entrepreneur are greater the easier the task: the greater the shame, the greater the incentives to avoid failure. Thus we have  $I_f = -(1 - P_f)$ . The tendency to avoid failure ( $T_{af}$ ) becomes

$$T_{\rm af} = (F \times P_{\rm f} \times I_{\rm f}).$$

Combining these formulas, we can say that the tendency to approach or avoid an entrepreneurial venture (E) is equal to the tendency of approach success plus the tendency to avoid failure (the latter being a negative number) (Deci 1975). Thus

$$E = (M_s \times P_s \times I_s) + (F \times P_f \times I_f).$$

This kind of modeling could be useful in helping us understand how individuals go about choosing one venture over another or, conversely, in making the decision to stop undertaking a venture.

#### 13.6 Memories as Motivators

Memories of past risks and failures are also related to the issue of risk. Through his review of the motivation to succeed and the role of failure memories, Schlachet (1969) could provide us with a useful model about the impact of serial entrepreneurship on the motivation to start, or not start, subsequent ventures. The motivation of serial entrepreneurs remains unexplored, especially with respect to the impact of memories of risk and prior successes and failures. This may explain why serial entrepreneurs perceive risk differently from less-experienced individuals.

# 13.7 Intrinsic and Extrinsic Motivations in Entrepreneurs

Although motivation can exist in many forms, it ultimately comes from two places: from inside one's self and from one's outside environment. Motivation could come internally from the emotional high one feels when launching a firm or externally from the admiration of society or money received from the venture. That is, motivation can be *intrinsic* and *extrinsic*. Intrinsic motivation refers to a personal interest in the task, e.g., achievement motivation (Carsrud et al. 1989), and extrinsic motivation refers to an external reward that follows certain behavior (Perwin 2003; Nuttin 1984). Therefore, intrinsic motivations include a large proportion of

self-development and self-actualization. Note, however, intrinsic and extrinsic motivations are not mutually exclusive; one can be motivated by both to perform an act (Nuttin 1984; Elfving 2008).

Ryan and Deci (2000) view motivation as the core of biological, cognitive, and social regulation. They further state that it involves the energy, direction, and persistence of activation and intention. To help better understand the role of both intrinsic and extrinsic motivations, Ryan and Deci (2000) take into account selfdetermination theory (SDT). SDT spotlights the importance of one's inner-evolved resources for personality development and behavioral self-regulation. Through this theory, Ryan and Deci (2000) empirically identified three inherent psychological needs that are necessary for self-motivation and personality integration. These are the need for competence, relatedness, and autonomy. If these needs are satisfied within an individual concerning a particular act, they will be more inclined to persist at completing the task with intrinsic motivation. Conversely, if these needs are not fully met, they will be more likely to be extrinsically motivated by external factors (Ryan and Deci 2000). Of course, extrinsic and intrinsic motivations can occur together, but Ryan and Deci point to SDT in helping to determine the primary motivator. Applied to entrepreneurs, the extent to which their venture fulfills the needs defined by SDT will contribute to their intrinsic and extrinsic motivation levels.

Entrepreneurial motivation is tied to both internal and external factors (Elfving 2008). Internally, entrepreneurs may be motivated to succeed and accomplish a goal, while externally they may be motivated to be their own boss and obtain wealth. One's need for success is another way of looking at need for achievement (Ach) where one tries to match some standard of excellence, for example, an icon of entrepreneurship such as Bill Gates of Microsoft. More likely, entrepreneurial motivations may be learned or influenced by role models of successful entrepreneurs in one's own family. Directly related to one's intrinsic motivation is one's locus of control. For a more detail discussion on locus of control of motivation, which has a long tradition of research, the reader is referred to the chapter in this book on the topic. Likewise, achievement motivation (Ach) is a special form of intrinsic motivation (Deci 1975; Elfving 2008) and is discussed in detail later in this chapter.

Perhaps no psychologist has had greater impact on the study of intrinsic and extrinsic motivations than Edward Deci (1975) and more recently with the work of Quigley and Tymon (2006) and Elfving (2008). While most entrepreneurial research assumes the entrepreneur is motivated by external rewards such as money, power, status (an economic view of human motivation), we are left with the reality that some people engage in entrepreneurial activities as ends in themselves. This classic definition of intrinsic motivation (Deci 1975) could certainly play a role in why social entrepreneurs start social ventures even when there is no apparent reward for doing so other than some internally generated satisfaction. The idea that an individual engages in entrepreneurial behaviors because of the need for stimulation (a form of intrinsic motivation) is not revolutionary, but the fact that serial entrepreneurs do this habitually may provide some interesting insights into such behavior. That is, once an entrepreneur has had the stimulation of starting a firm, they frequently return

to that behavior because of intrinsic motivation and the internal and external rewards they received doing that behavior in the past. They might persist in trying for internal reasons even if they have never been rewarded externally through a successful venture. They reduce the cognitive dissonance of perceived possible failure by believing they can be successful this time.

## 13.8 Obsession, Passion, and Entrepreneurial Motivations

Likewise, entrepreneurs have often been described as being fully absorbed in their ventures and even overcommitted to the point of obsession. Koch (1956) pointed out that those engaged in tasks by intrinsic motivation were more highly organized and energized. This might explain why the panel studies (Reynolds et al. 2002) on entrepreneurs found that even those who did not successfully start a business said that they would try again with a new venture. To have ceased starting a venture and yet want to try again is an indication of intrinsic motivation, which needs to be better understood in addition to the role of that motivation in relation to entrepreneurial intentions. This is a part of what we might call "entrepreneurial passion." For a longer discussion on passion, the reader is referred to the chapter on that topic within this book. Finally, external motivations or rewards would include relatively intangible things such as status, power, social acceptance, with the more tangible eternal rewards being money, stock options, and other forms of compensation.

#### 13.9 Final and Instrumental Motivation

Moreover, it is sometimes appropriate to separate between *final* and *instrumental* motivation (Nuttin 1984; Elfving 2008). When one is doing something to reach a certain goal, one has a final motivation. However, when one is doing something that indirectly leads to the final goal, one has an instrumental motivation. For example, one might have a final goal of losing weight and therefore one attends a cooking class in order to learn how to make healthier food. Attending the cooking class is an instrument to reach the actual goal and thus, the cooking class acts as an instrumental motivation.

As noted, when looking at different kinds of motivations we can understand a person's behavior only when we put it into a context. We have to look at how he perceives his initial position, i.e., his construction of the behavioral world, and what goals he sets. We can understand his motivation and behavior only in that context. In other words, the behavior or the motivation has to be put in relation to something else, which Nuttin (1984) argues in his relational model of motivation. He suggests that we should study motivation in the context of the individual—environment relationship. How a person behaves and what is perceived as motivating depends on the

person's cognition of the environment and his interaction within it. Motives, goals, and plans do not arise from empty nothingness; they are shaped by their interaction with the environment (Huuskonen 1989).

According to Nuttin (1984), motivation is rooted in a state of need. We can feel a need to have more independence or a need to be loved and this need motivates us to act. Through a cognitive process, the state of need is gradually processed into a more focused orientation, i.e., we make a plan and set goals. Thus, we have taken the step from phase 1 to phase 2 in the behavioral process. These needs cause some tension, but it is worth noting that in this case we are not talking about the type of purely negative tension which occurs in drive theories. According to Nuttin (1984), people want to have a certain amount of tension in their lives. Consequently, in this case, tension should be viewed mainly as a positive challenge as in the case of the entrepreneur building a new venture. Nuttin (1984) points out that once we have reached one goal, i.e., released the tension, we tend to set a new goal immediately, i.e., deliberately create a new tension.

#### 13.10 Life, Work, Career Satisfaction as Motivators

Another way to look at intrinsic and extrinsic motivations is to look at satisfaction in one's life and work; these are very motivating forces for most individuals. Dissatisfaction at one's current job can propel an employee to attempt to become an entrepreneur. One does not have to lose a job to become an entrepreneur, as in necessity entrepreneurship. One can quit a job and become an opportunistic one. If the outcomes of one's work climate are not meeting their needs or are causing excessive amounts of stress and unhappiness, motivation to change those circumstances can flourish. Hence, this serves to motivate or drive opportunity recognition and propels the venture creation process. Of course, corporate downsizing, economic conditions, or other forces outside of one's control can force motivation through the necessity to continue supporting one's self (Elfving 2008), but it is also true that people leave safe and secure employment to become entrepreneurs. This is often because they perceive some other combination of internal and external rewards outside of working for someone else to be more valuable and motivating.

The role of the need for success, power, status, and affiliation (Wainer and Rubin 1967) by entrepreneurs has yet to be fully explored. If entrepreneurship is not viewed positively in a society, it is hard to imagine that entrepreneurs are motivated by power or status in these conditions (Brännback et al. 2007). Could such variables differentiate between entrepreneurs focused on growth-oriented ventures and lifestyle entrepreneurs? Entrepreneurs who set out with a particular vision of their future success can be motivated through the goal of potential future rewards, even though the present work might not be as satisfying or externally rewarding. They may perceive opportunities in very different ways because of their underlying motivations. A longer discussion on perception can be found in another chapter in this book.

#### 13.10.1 Career Motivations

Also related to work satisfaction are the motivational factors related to career motivation. Internal and external forms of motivation are clearly evident in work motivation. Work motivation, as described by Pinder (1984, 1998), is the combination of internal and external factors that initiate work-related behaviors, and determine its form, direction, intensity, and duration (Ambrose and Kulik 1999). For entrepreneurs, it is important that they have a high level of work motivation. While work motivation has been applied to employees and managers, it seems to be lacking in the study of the entrepreneur. The classic work of Hackman and Oldham (1976) on work design has never been applied to how entrepreneurs design their work (or firm), yet it is clear that entrepreneurs are motivated by the kinds of firms they build. It is interesting that entrepreneurship researchers have seemingly avoided the extensive literature on work motivation (Pinder 1984, 1998) which can link to the literature on intentions, goals, goal setting, leadership, and even job enrichment. Recent researchers Gächter and Falk (2000) and Quigley and Tymon (2006) have continued this research stream.

## 13.11 Goal and Goal Setting

Goals and goal setting are clearly parts of any entrepreneurial activity and often serve as motivators for behavior. It is a critical part of any planned behavior as we will note later in this chapter. Setting and working toward goals is a driving motivational force for entrepreneurs. Improving one's life and the lives of their family members can also be a very motivating goal. In addition, many entrepreneurs self-report that they are motivated to be their own boss and work for themselves instead of being just another face within an organization.

Motivation in relation to goals, however, is not a static state: entrepreneur's motives change throughout their life as their goals change. Something started for one reason may continue for another (Nurmi and Salmela-Aro 2005). The importance and impact of goals has gained a lot of attention in motivational research (see, for example, Locke and Latham 2002; Bagozzi and Warshaw 1990, 1992; Bay and Daniel 2003). In fact, being capable of changing goals and motives is a way for people to adjust to changing situations. As Nuttin (1984) points out, motivation is shaped in the individual–environment context. If environmental factors change, entrepreneurs need to be able to alter their motives in order to cope with and make sense of the new situation (Salmela-Aro et al. 2005).

#### 13.12 Achievement Motivation

One motivational construct that received considerable attention early in the process of understanding the entrepreneur is achievement motivation (Ach) (McClelland et al. 1953; McClelland 1961, 1965; Brockhaus 1980, 1982; Gasse 1982; Carland

et al. 1984; Carsrud et al. 1989), with all studies cited here finding varying results. Interestingly, it was Carland et al. (1984) who said that the small business owner sees their business as an extension of their personality, while the entrepreneur is characterized by innovative business behavior. However, McClelland and Winter (1969) did find that achievement motivation was the differentiating factor between small business entrepreneurs and other business leaders. Recently, there has been renewed interest in this motivational concept (Collins et al. 2004; Langen-Fox and Roth 1995; Tuuanaen 1997; Steward and Roth 2007; Lumpkin and Erdogan 2004; Hart et al. 2007).

One thing that drives that innovative business behavior of the entrepreneur is certainly a motivational characteristic of any successful individual: achievement motivation (Ach). Carsrud et al. (1989) used a multi-dimensional measure of Ach and clearly demonstrated the significant impact of a multi-dimensional measure of Ach on the productivity of a group of retail building supply firms that were started by their owners and ranged from small firms (four employees and revenues of \$550,000) to medium size firms (156 employees and revenues of \$18,000,000). While one could argue these were small business owners and not really innovative growth-oriented entrepreneurs, the fact remains that they all started their firms and their levels of achievement motivation did significantly impact the subsequent success of those firms. It is not that motivations differ between entrepreneurs and nonentrepreneurs, but instead that motivations can impact the resulting performance of the firm, most likely via the intentions and goals of the entrepreneurs.

McClelland (1961, 1965) used a projective technique, thematic apperception test or TAT, and found achievement motivation in men but not in women. Today's entrepreneurship researcher would be hard-pressed to administer the TAT, but if McClelland's findings were true, then there is the issue of why male entrepreneurs have such motivation and female ones do not when we know from common experience that this is not the case. Much of the research problems in the initial measurement of Ach centered on assuming it as a unidimensional concept initially studied via projective clinical techniques. Komives (1972) saw Ach as a lifestyle value quite similar to the conceptualization and measurement process of Mehrabian (1968). It is also important to note that how a concept is operationally measured affects its usefulness in the study of a given phenomenon.

One such approach to a multi-dimensional measure of Ach is the *Work and Family Orientation Inventory* (WOFO) (Helmreich and Spence 1978). It contains three sub-scales that may have particular resonance with the study of entrepreneurship that go beyond the "lifestyle" concerns of the more unidimensional scales of Mehrabian (1968) and Komives (1972). The WOFO sub-scales refer to "mastery needs," "work orientation" (Protestant work ethic), and "interpersonal competitiveness." These dimensions of Ach are assessed through questions such as "I like to work hard" (work orientation), "I prefer to work in situations that require a high level of skill" (mastery needs), and "I feel that winning is important in both work and games" (interpersonal competitiveness). It should be clear from the above questions that these scales are tapping into some underlying motivational characteristics of the entrepreneur. Consider the typical observations about entrepreneurs: they work hard, they have to master any number of different skills and tasks, and they have to

be able to work with others in their team. It should also be obvious that the motivational concept of "mastery" has a great deal in common with the concept of self-efficacy (Krueger et al. 2000; Bandura and Locke 2003; Zhao et al. 2005; Wong et al. 2006). For more on self-efficacy, one is referred to the cluster of chapters on intentions and the chapter on self-efficacy in this book.

A series of studies (Spence and Helmreich 1978; Helmreich and Spence 1978; Helmreich et al. 1978, 1980, 1986; Helmreich 1982; Carsrud et al. 1982, 1989) demonstrated that the quality and quantity of academic and vocational performance can be significantly predicted by varying combinations of multi-dimensional factors of Ach as measured by the WOFO. These studies indicate that the best performance is typically exhibited by those individuals scoring *high* in mastery needs and work orientation, but *low* in interpersonal competitiveness. This combination of factors could also be used to describe self-efficacy. These vocational situations, including entrepreneurial ventures (Carsrud et al. 1989), are ones in which having to interact and motivate others is a necessity. Interpersonal competitiveness, which may be popularly considered a trait of entrepreneurs and Type A personalities, is in fact not a trait of those that are successful (Carsrud et al. 1989).

Finally, if it is correct that McClelland and Winter (1969) found Ach to be a differentiating factor between small business owners and entrepreneurs, such a result could be the outcome of the differences in the interactions of "mastery," "work orientation," and "mastery needs," rather than the presence or absence of overall Ach. This might also explain the observed Ach differences between men and women found by McClelland using the TAT.

# 13.13 Personality Factors and Motivation

Given that we all have basic, primal motivation, let us consider the influence of specific personality types on how that motivation is cultivated.

# 13.13.1 Type A and Type B Personalities

In psychological research, personality types can be classified into two subgroups: Type A and Type B. People with Type A personalities tend to be extremely driven, focused, high-strung, and goal-orientated. Type A's are characterized as excessive and competitive, with a strong sense of urgency. Additionally, they are seen as possessing a sustained drive for success, a willingness to compete, and habitual actions associated with mental and physical functions (Liao and Welsch 2004). Price (1982) suggested that this is a learned set of behaviors and is more likely in competitive and open economies where success is a function of individual effort and progress is seen in tangible forms.

Individuals with Type B personalities are more laid back and easygoing. Little research has examined whether individuals with certain types of personalities end

up forming different types of firms. For example, do Type A's develop technology firms while Type B's build lifestyle ventures? Likewise, there is research to show differences in optimism versus pessimism in entrepreneurs (Manove 2000), which might be beneficial in predicting bankruptcy or failures. An additional area of personality traits that remains to be explored is gender-related traits, which have been shown to have "motivational qualities."

## 13.13.2 Masculinity and Femininity

Another way of looking at personalities is to look at differences between groups of entrepreneurs. While there are going to be motivational differences between men and women, many of these may be associated not with gender per se, but with sex-role orientations that reflect more masculine and feminine behaviors: hence, masculinity and femininity (Spence and Helmreich 1978). These traits show predominance of one gender over the other, but both genders can demonstrate these characteristics.

For example, a positive masculine trait with motivational characteristics is instrumentality—the desire to make things work and understand their operation. A negative masculine trait that has motivational impact is hostility—the desire to dominate through physical action in order to bring harm to another. While both men and women can possess these traits, men tend to show them to a greater degree than women. Certainly instrumentality is a trait one would expect to see in technology-based entrepreneurs, which might explain why even today males outnumber women in engineering professions and subsequently in new technology-based firms.

Positive feminine traits such as expressivity—the desire to be sensitive to others and their feelings and to be sensitive to one's own feelings have positive implications for marketing. Being able to listen to what customers need, want, and fear may be far easier for women than it is for men. However, a negative side of femininity, which has motivational implications, is verbal aggression. This tenacity to be aggressive verbally toward others can have significant impact on both organizational performance as well as staff morale within new ventures. Again, while both men and women can possess these traits, women tend to show them to a greater degree than men.

## 13.14 Motivations, Attitudes, and Behaviors

We know that in order to understand people's behavior, we have to understand their cognitive processes and their perceptions of the particular behavior or act. Accordingly, people make decisions to undergo a certain act, such as becoming an entrepreneur. While cognitive processes involves beliefs, desires, intentions, and

198 A. Carsrud et al.

motives, Perwin (2003) argues that special attention needs to be paid to the motives themselves or any underlying motivations. In an entrepreneurial context, it is assumed that people form intentions to perform an entrepreneurial act when they possess positive attitudes toward that very act, i.e., entrepreneurship. Why do these attitudes emerge and how do they subsequently affect behavior?

## 13.14.1 The Impact of Motivation on Behavior

According to Nuttin (1984), there are three phases in every behavioral process. These are (i) the construction of a behavioral world, (ii) processing of the person's needs into goals and plans, and (iii) carrying out the behavioral operations needed in order to reach the goal or fulfill the plan. The first phase has to do with the situation in which the individual finds himself. Before he can do anything, he starts by processing the informational data into a meaningful picture. In the second phase, he decides what he wants to do, i.e., which goal to reach, and in the third phase he executes his plans. From the point of view of understanding human behavior, we have to understand how people perceive a certain situation and what goals they set.

Nuttin also argues that motives are what take people from one phase to another. Nuttin (1984, 14) defines motivation as "the dynamic and directional (i.e., selective and preferential) aspect of behavior. It is motivation that, in the final analysis, is responsible for the fact that a particular behavior moves toward on category of objects rather than another." Here motives and motivation are used synonymously.

#### 13.15 Goal-Directed Behavior, Motivation, and Intentions

Goals can be seen as mental representations, or schemes, of what the future could be like, enabling people not to give up (Perwin 2003). As previously mentioned, goals are central units in Bandura's social cognitive theory. According to Bandura, self-efficacy partly determines what people intend to achieve and what kind of goal they set for themselves (Bandura 1989). Goals activate people and in that way often serve as the important link between intention and action (Perwin 2003; Nuttin 1984). This indicates that goals play a role in predicting human behavior. In fact, the importance of goals when studying human behavior has been considered so important that it has led to its own field of research: the *theory of goal setting* (see, for example, Locke and Latham 2002; Latham and Locke 1991; Locke et al. 1988; Baum et al. 2001; Baum and Locke 2004; Shane et al. 2003).

<sup>&</sup>lt;sup>1</sup>Throughout this chapter the authors have chosen to use the pronoun he when referring to an individual, but this has been only for ease or reading and in no way implies that women cannot be entrepreneurs

Locke and Latham (2002) propose that goals impact both performance and behavior through four different mechanisms. First of all, goals have a directive function. They help us to turn our attention and efforts toward activities relevant to the goal and ignore activities which are irrelevant. Second, goals serve as energizers. The higher the goals, the greater efforts we make to achieve them, as stated in Bandura's (1989) theory of self-efficacy. Third, goals affect persistence. The higher the goal, the longer we are willing to work for it. Finally, goals can lead to arousal, discovery, and emergence of strategies. The relationship between goals and performance is stronger the more committed people are. How committed individuals are depends on the importance of the outcome (how important is it to succeed) and how likely their success is in their own estimation (self-efficacy). The existence of feedback is another important factor in goal theory. People need to be able to check where they stand in relation to their goal so that they can determine whether they need to make adjustments in their behavior in order to attain the goal (Locke and Latham 2002; Lent et al. 1994). Social cognitive theory implies there is a reciprocal relation between self-efficacy, outcome expectations, and goal systems (Bandura 1986).

Behavior goals are neither entirely ignored nor explicitly included in the work of Ajzen and Fishbein (1977). Essentially, all behaviors can be labeled as goals in the theory of planned behavior. Goals can be defined as every positive outcome that one seeks to gain through reasoned behavior (e.g., Ajzen and Fishbein 1977). For example, if an entrepreneur goes to venture capitalists in order to raise funds, the act of going to the venture capitalist constitutes a planned behavior and gaining money for the venture is the goal. However, Bagozzi and Warshaw (1990, 1992) have opposed this definition of goals and claim the theory of planned behavior is designed to explain only performances which are solely dependent on an intention, i.e., volitional behavior where no impediments prevent the implementation of the intention. Thus, in effect, ignoring the fact that impediments may have an effect on whether the performance will be successful or not. For example, one may have the intention to buy a business, but the intention may not be acted upon because of a lack of financing or a lack of suitable firms for sale. An intention does not always lead directly to an action (Bagozzi and Warshaw 1990). As noted earlier, Ajzen (1985) did add behavioral control into the model in order to include the influence of external factors, but this addition did not satisfy Bagozzi and Warshaw, who subsequently developed their own model called the theory of trying (Bagozzi and Warshaw 1990). This model is illustrated in Fig. 13.1.

While Ajzen and Fishbein's theories treat action as a single performance, Bagozzi (1992) preferred to view action as an attempt, or a sequence of attempts, through which to achieve a final performance. Bagozzi made a critical remark with respect to the nature of entrepreneurial venture creation: *Sometimes there is a significant time-lag between when the decision is made and an opportunity to act on it* (Bagozzi et al. 2003; Shane 2008). This was emphasized by using the words "goal striving" or "trying."

Bagozzi and Warshaw (1990) distinguish between *intermediate goals* and *end-state goals*. For example, one might buy a house (intermediate goal) in order to achieve a higher standard of living (end-state goal). Applying the theory of planned

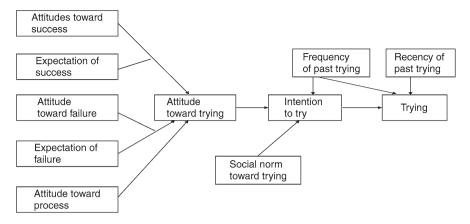


Fig. 13.1 Theory of trying (Source: Bagozzi and Warshaw 1990, 131)

behavior might be useful when deciding which house to buy, but the theory of planned behavior fails to predict whether the end-state goal is achieved or not.

In the theory of trying, an attitude toward a reasoned action is replaced by an *attitude toward trying* and an intention is restricted to an *intention to try*. Moreover, Bagozzi and Warshaw (1990) added the impact of past behavior and some additional background factors. In the theory of planned behavior, intentions and performance are influenced by past behavior only through background factors (Ajzen and Madden 1986; Ajzen and Fishbein 2005). However, Bagozzi and Warshaw (1990) argued that past behavior could make a substantial contribution to understanding future behavior and could also possibly influence behavior directly without impacting the formation of intention. Frequently occurring behavior is often mindless and therefore its performance is determined by cognitive schemes.

In the theory of trying, the impact of past behavior is divided into the *frequency of* past behavior and how recently that past behavior occurred, representing the role of memories in affecting future intentions. The frequency of past behavior is assumed to impact the *intention to try* as well as the *trying directly*. It is also believed to impact the intention to try even when intentions are not yet fully formed on a cognitive level. Consider, for example, asking an entrepreneur if he is going to attend a trade fair within the next year. Perhaps he has not yet planned which trade fair to attend, but if he knows that he usually attends two trade fairs each year, he is most likely to answer that he will probably attend one within the next year even though he does not yet have a clear plan which trade fair to attend. The frequency of past trying affects trying directly as in habitual behavior. Moreover, how recent the past trying occurred is also believed to have an impact because of the increased likelihood of recalling and reporting more recent behavior rather than behavior which happened in the more distant past. Recent behavior is therefore assumed to be overweighed in the formation of an intention. For example, if one has just succeeded in starting a company, one is likely to believe one can do it again. Likewise, if one has just failed in something, one is probably not very keen to try again immediately (Bagozzi and Warshaw 1990).

The determinants of attitudes toward trying in the theory of trying are adapted from Lewin's early work on goals (Lewin et al. 1944). Lewin suggests attitudes toward trying were the result of an individual weighing success against failure. In the theory of trying, self-efficacy is present through the subject's subjective assessments of the probability of success (Bay and Daniel 2003).

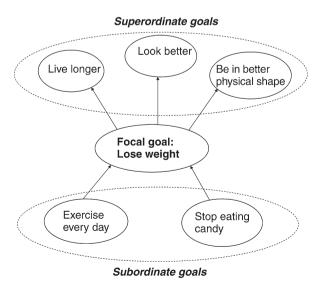
In the original test of the theory of trying, attitudes were not significantly predicted by the attitudes toward failure and the expectations of failure. Later work proved the usefulness of the model, but concurrently draws attention to the fact that the significance of the attitude variables fluctuates (see, for example, Bagozzi and Kimmel 1995; Bagozzi et al. 1992; DeHart and Birkimer 1997). Both Bagozzi and Dholakia (1999) and Bay and Daniel (2003) picked up on this shortcoming and introduced *the concept of the hierarchy of goals*, which should be used in addition to the theory of trying. Bay and Daniel (2003, 669) state

Individuals develop "programs" intended to implement their principles and life goals. Within these programs, goals are arranged in a hierarchical order depending on how close they are to the overall goal of the program. Lower-level goals are intended to set the stage for the achievement of higher level-goals.

As seen in Fig. 13.2, Bagozzi and Dholakia (1999) suggest that goals can be divided into three levels: focal goals, lower level subordinate goals, and higher level superordinate goals. The focal goal is located in the center of the hierarchy and answers the question "What is it that I strive for?" Lower level subordinate goals answer the question "How can I achieve what I strive for?" and higher level superordinate goals answer to the question "Why do I want to achieve what I strive for?"

Most empirical tests of the theory of trying are carried out on a fairly low level of goals, such as losing weight or mastering a new piece of software. Bay and Daniel (2003) wanted to show that if the goal is of a higher level, it may have a different

**Fig. 13.2** Hierarchy of goals (Source: adapted from Bagozzi and Dholakia 1999, 24)



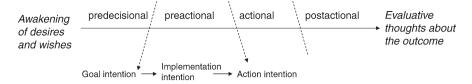


Fig. 13.3 Goal intentions and implementation intentions (Source: adapted from Gollwitzer and Brandstätter 1997)

impact on behavior. It is clear that this theory has much to offer the study of entrepreneurship, which is consistent with Locke and Latham's remark on the importance of the goal and the commitment of the actor (Locke and Latham 2002). It is fair to assume, for example, that one relates differently to purchasing an ice cream cone than to finding one's life partner. To test their assumption, Bay and Daniel (2003) choose to study the decision of high school students to complete their education. In that study, both the attitude toward success and the attitude toward failure were significant predictors of the attitude toward trying. As noted earlier, the attitude toward failure had rarely been found significant in earlier tests of the theory of trying. The results supported the assumption that goal-directed behavior can be placed on a continuum and that goals affect behavior differently depending on their position in the hierarchy.

The idea of a hierarchy of goals is also found in the work of Lawson (1997a, b). Similar to Bagozzi and Dholakia (1999), he proposes that goals can be organized at three different levels: system, principle, and program. The system level is the highest level and reflects the idealized self but does not lead to direct action. The principle level reflects a harmonious life and although it too does not lead to direct action, an understanding is formed at this level of what action could be taken. Finally, the program level results in action. At the two highest levels intentions are still ill-formed. Only at the lowest level (the program level) are well-formed intentions incorporated (Lawson 1997a, b).

The work of Gollwitzer and Brandstätter (1997) contributes to the discussion by illustrating the link between intentions, motivation, and goals and by presenting the ideas of *implementation intentions* and *goal pursuit*. As seen in Fig. 13.3, they describe people's goal pursuits as a continuum including four action phases. The first phase, the *predecisional phase*, is an awakening of desires and wishes. In the second phase, the *preactional phase*, goal-directed behavior is initiated. In the third phase, the *actional phase*, the goal-directed actions are brought to a successful ending. Finally, in the fourth phase, the *postactional phase*, the outcome is evaluated by comparing what has been achieved to what was originally desired.

The four action phases are connected through crucial transition points. Gollwitzer and Brandstätter (1997) label the first transition point *goal intention*. A goal intention, for example, can be "I intend to become an entrepreneur." However, as was previously stated, an intention is not enough to lead to an action as there might be several impediments along the way. There may also be different ways of achieving the goal that one may have to choose between in order to avoid the risk of failing to seize a specific opportunity. An *implementation intention* can then function as a mediator and take the goal pursuit one step further. It serves to translate the goal

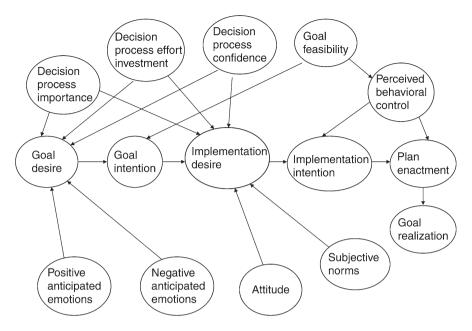


Fig. 13.4 Model for effortful decision making and enactment (Source: Bagozzi et al. 2003, 276)

state from a higher level of abstractness to a lower level and to link a certain goal-directed behavior to a situational context. An implementation intention could be, for example, "I intend to start my own company when I have finished my studies." An implementation intention results in a commitment to perform a specified goal-directed behavior once a critical situation has occurred. Furthermore, people who have formed an implementation intention should possess the cognitive structures needed to recognize opportunities when they emerge. Thus, Gollwitzer and Brandstätter (1997) conclude that a goal is more likely to be achieved if an implementation intention exists. Gollwitzer and Brandstätter (1997) also succinctly mention the connections to Ajzen's theory of planned behavior and imply that the theory of planned behavior is a good framework when applying their theoretical ideas. Evidently noticing this suggestion for improvement, Ajzen (2001) emphasizes that translating intentions into action is a complex process which needs more research.

More recently, Bagozzi et al. (2003) have added the implementation into their original model (Bagozzi and Warshaw 1992). The resulting model, called a model for effortful decision making and enactment, is designed to explain the mechanisms through which decision making influences goal striving and enactment (see Fig. 13.4).

The model suggests that behavioral decisions are made on two levels. First at the level of goals (or goal intention), and second at the level of the action needed to attain the goal (implementation intention). The mediating role of motivational constructs (goal and implementation desires), emotional constructs (positive and negative anticipated emotions), and attitude constructs (attitudes, social norms, feasibility, confidence, and perceived behavioral control) are also taken into

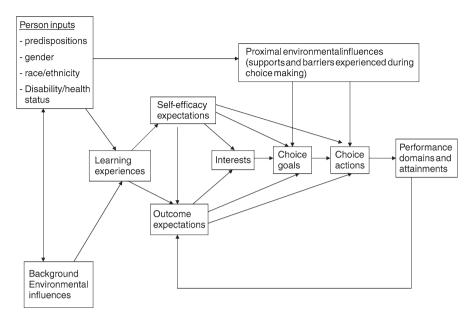


Fig. 13.5 Social cognitive career theory (Source: Lent et al. 1994, 93)

account in the model. Desires are believed to be sufficient antecedents of intentions. Anticipated emotions include the assessment of the prospect of both success and failure. How one feels about succeeding and failing will, according to Bagozzi et al. (2003), affect which goals are set. The role of attitude constructs responds to the arguments presented in the theory of planned behavior.

Since goals impact our decisions and decisions are made frequently in our lives, our chosen goals will influence many aspects of our lives, including career choices. The importance of goals when choosing a career has been studied through social cognitive career theory (Lent and Brown 2006; Lent et al. 1994). The model developed by Lent and Brown and their associates includes variables related to the core person (e.g., self-efficacy, outcome expectation, interest, goals) as well as variables related to the contextual setting (e.g., support, barriers, background). The model is illustrated in Fig. 13.5.

This model implies that people develop a career interest in fields they view themselves to be efficacious in, and in which they anticipate a positive outcome. Personal interests further affects which goal one sets and which actions one chooses to undertake. Outcome expectations and self-efficacy expectations can also directly impact goal and action choices (Lent et al. 1994). It is noteworthy that there are no obvious dependent variables in the model. Lent and Brown (2006) argued that social cognitive variables can be viewed as dependent or independent, depending on whether one intends to study what shapes the variables, or the outcome that the variables foster.

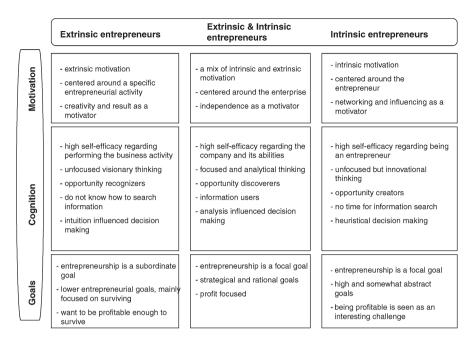


Fig. 13.6 Characteristics of different types of entrepreneurs (Source: Elfving 2008, 144)

# 13.16 Tying Motivation to Cognitions and Goals

If we take the discussion on intrinsic and extrinsic motivations and merge it into the discussion on goals and cognitions, we can create a description of the characteristics that different types of entrepreneurs have (Elfving 2008). In this chapter, we have attempted to cover a broad range of concepts that have strong motivational properties that could impact entrepreneurial cognitions and behaviors. We have also tried to show how various motivations are tied to entrepreneurial intentions and attitudes, as seen in Fig. 13.6. We have also suggested several potentially fruitful areas of research using motivational concepts that could reveal a lot about what drives entrepreneurs. In turn, this could potentially help us better design programs and policies to support such motivations and subsequent behaviors.

#### References

Ajzen I (1985) From intentions to actions: a theory of planned behavior. In: Kuhl J, Beckmann J (eds) Action control: from cognition to behavior. Springer, New York, pp 11–39

Ajzen I (2001) Nature and operation of attitudes. Annu Rev Psychol 52:27-58

Ajzen I, Fishbein M (1977) Attitude-behavior relations: a theoretical analysis and review of empirical research. Psychol Bull 84:888–918

Ajzen I, Fishbein M (2005) The influence of attitudes on behavior. In: Albarracin D, Johnson B, Zanna M (eds) The handbook of attitudes. Lawrence Erlbaum Associates, Mahwah, pp 173–221

- Ajzen I, Madden TJ (1986) Prediction of goal-directed behavior: attitudes, intentions, and perceived behavioral control. J Exp Soc Psychol 22:453–474
- Ambrose ML, Kulik CT (1999) Old friends, new faces: motivation research in the 1990s. J Manag 25:231–292
- Atkinson JW (1957) Motivational determinants of risk-taking behavior. Psychol Rev 64:359–372 Atkinson JW (1964) An introduction to motivation. Van Nostrand, New York
- Bagozzi R (1992) The self-regulation of attitudes, intentions, and behavior. Soc Psychol Q 55:178-204
- Bagozzi R, Dholakia U (1999) Goal setting and goal striving in consumer behavior. J Mark 63:19-32
- Bagozzi R, Kimmel P (1995) A comparison of leading theories for the prediction of goal-directed behaviours. Br J Soc Psychol 34:437–461
- Bagozzi R, Warshaw P (1990) Trying to consume. J Consum Res 17:127-140
- Bagozzi R, Warshaw P (1992) An examination of the etiology of the attitude-behavior relation for goal-directed behaviors. Multivar Behav Res 27:601–634
- Bagozzi R, Davis F, Warshaw P (1992) Development and test of a theory of technological learning and usage. Hum Relat 45:659–686
- Bagozzi R, Dholakia U, Basuroy S (2003) How effortful decisions get enacted: the motivating role of decision processes, desires, and anticipated emotions. J Behav Decis Mak 16:273–295
- Bandura A (1986) Social foundations of thought and action: a social cognitive theory. Prentice Hall, Englewood Cliffs
- Bandura A (1989) Regulation of cognitive process through perceived self-efficacy. Dev Psychol 25:729–735
- Bandura A, Locke EA (2003) Negative self-efficacy and goal effects revisited. J Appl Psychol 88:87–99
- Baum J, Locke EA (2004) The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. J Appl Psychol 89:587–598
- Baum J, Locke EA, Smith K (2001) A multidimensional model of venture growth. Acad Manag J 44:292–303
- Bay D, Daniel H (2003) The theory of trying and goal-directed behavior: the effect and moving up the hierarchy of goals. Psychol Mark 20:669–684
- Brännback M, Carsrud A, Kickul J, Krueger N, Elfving J. (2007) Trying to be an entrepreneur? A goal-specific challenge to the intentions model. Babson conference entrepreneurship research, Madrid, Spain, 7–9 June 2007
- Brockhaus RH (1980) Risk taking propensity of entrepreneurs. Acad Manag J 23:509-520
- Brockhaus RH (1982) The psychology of the entrepreneur. In: Kent CA, Sexton DA, Vesper KH (eds) Encyclopedia of entrepreneurship. Prentice-Hall, Englewood, NJ, pp 39–55
- Carland JW, Hoy F, Boulton WR, Carland JAC (1984) Differentiating entrepreneurs from small business owners: a conceptualization. Acad Manag Rev 9:351–359
- Carsrud AL, Dodd BG, Helmreich RL, Spence JT (1982) Predicting performance: effects of scholastic aptitude, achievement motivation, past performance, and attributions. Paper presented at the convention of the American Psychological Association, Washington, DC.
- Carsrud AL, Olm KW, Thomas JB (1989) Predicting entrepreneurial success; effects of multidimensional achievement motivation, levels of ownership, and cooperative relationships. Entrep Reg Dev 1:237–244
- Cohen AR, Zimbardo PG (1969) Dissonance and the need to avoid failure. In: Zimbardo PG (ed)
  The cognitive control of motivation: the consequences of choice and dissonance. Scott
  Foresman and Company, Glenview, IL
- Collins C, Hanges P, Locke EA (2004) The relationship of achievement motivation to entrepreneurial behavior: a meta-analysis. Hum Perform 17:95–117
- Deci EL (1975) Intrinsic motivation. Plenum Press, New York

DeHart D, Birkimer J (1997) Trying to practice safer sex: development of the sexual risks scale. J Sex Res 34:11–28

Deutsch M, Krauss RM (1965) Theories in social psychology. Basic Books, New York

Elfving J (2008) Contextualizing entrepreneurial intentions: a multiple case study on entrepreneurial cognitions and perceptions. Åbo Akademi förlag, Turku, Finland

Festinger L (1957) A theory of cognitive dissonance. Row, Peterson, Evanston, IL

Fisher I (1930) The theory of interest. Macmillan, New York

Freud S (1900) The interpretation of dreams. Standard editions. Hogarth Press, London, 1953

Freud S (1915) Instincts and their vicissitudes. In: Freud S (ed) Collected papers, vol 4. Basic Books, New York, pp 60–83

Freud S (1924) A general introduction to psychoanalysis. Permabooks, New York

Gächter S, Falk A (2000) Work motivation, institutions, and performance. In: Zwick R, Rapoport A (eds) Advances in experimental business research. Kluwer Academic Publishers, Dordrecht

Gasse Y (1982) Elaborations on the psychology of the entrepreneur. In: Kent CA, Sexton DA, Vesper KH (eds) Encyclopedia of entrepreneurship. Prentice-Hall, Englewood Cliffs, NJ, pp 57–66

Gollwitzer P, Brandstätter V (1997) Implementation intentions and effective goal pursuit. J Pers Soc Psychol 73:186–199

Hackman JR, Oldham GR (1976) Motivation through the design of work: test of a theory. Organ Behav Hum Perform 16:250–279

Hart JW, Stasson MF, Mahoney JM (2007) The big five and achievement motivation: exploring the relationship between personality and a two-factor model of motivation. Individ Differ Res 5:267–274

Helmreich RL (1982) Pilot selection and training. Paper presented at the meeting of the American Psychological Association, Washington, DC

Helmreich RL, Spence JT (1978) The work and family orientation questionnaire: an objective instrument to assess components of achievement motivation and attitudes towards family and career. JSAS Catalog Select Doc Psychol 8:35 (Ms. No. 1677)

Helmreich RL, Beane WE, Lucker GW, Spence JT (1978) Achievement motivation and scientific attainment. Personal Soc Psychol Bull 4:22–226

Helmreich RL, Spence JT, Beane WE, Lucker GW, Matthews KA (1980) Making it in academic psychology: demographic and personality correlates of attainment. J Pers Soc Psychol 39:896–908

Helmreich RL, Sawin LL, Carsrud AL (1986) The honeymoon effect in job performance: temporal increases in the predictive power of achievement motivation. J Appl Psychol 71:185–188

Homans GE (1961) Social behavior: its elementary forms. Harcourt, Brace&World, New York

Huuskonen V (1989) Yrittäjäksi ryhtyminen motivoitumis- ja päätöksentekoprosessina. Publications of the Turku School of Economics, Turku

Koch S (1956) Behavior as "intrinsically" regulated: work notes toward a pre-theory of phenomena called "motivational". Neb Symp Motiv 4:42–87

Komives JL (1972) A preliminary study of the personal values of high technology entrepreneurs. In: Cooper AC, Komives JL (eds) Technical entrepreneurship: a symposium. Center for Venture Management, Milwaukee, WI, pp 231–242

Krueger N, Reilly M, Carsrud AL (2000) Competing models of entrepreneurial intentions. J Bus Ventur 15:411–532

Langen-Fox JL, Roth S (1995) Achievement motivation and female entrepreneurs. J Occup Organ Psychol 68:209–218

Latham GP, Locke EA (1991) Self-regulation through goal-setting. Organ Behav Hum Decis Process 50:212–247

Lawson R (1997a) Consumer decision making within a goal-driven framework. Psychol Mark 14:427–449

Lawson T (1997b) Economics and reality. Routledge, London

Lent R, Brown S (2006) On conceptualizing and assessing social cognitive constructs in career research: a measurement guide. J Career Assess 14:12–35

Lent R, Brown S, Hacket G (1994) Toward a unifying theory of career and academic interests, choice, and performance. J Vocat Behav 45:79–122

Lewin K, Dembo L, Sears P (1944) Level of aspiration. In: Hunt M (ed) Personality and the behavior disorders. Ronald, New York, pp 333–378

Liao J, Welsch H (2004) Entrepreneurial intensity. In: Gartner WB, Shaver KG, Carter NM, Reynolds PD (eds) Handbook of entrepreneurial dynamics: the process of business creation. Sage, Thousand Oaks, CA, pp 186–195

Locke EA, Latham GP (2002) Building a practically useful theory of goal setting and task motivation. Am Psychol 57:705–717

Locke EA, Latham GP (2004) What should we do about motivation theory? Six recommendations for the twenty-first century. Acad Manag Rev 29:388

Locke EA, Latham GP, Erez M (1988) The determinants of goal commitment. Acad Manag Rev 13:23–39

Lumpkin GT, Erdogan B (2004) If not entrepreneurship, Can psychological characteristics predict entrepreneurial orientation? – a pilot study. ICFAI J Entrep Dev 1:21–33

Manove M (2000) Entrepreneurs, optimism and the competitive edge. Boston University and CEMFI, Boston

Maslow AH (1946) A theory of human motivation. Psychol Rev 50:370-396

McClelland DC (1961) The achieving society. D. Van Nostrand Company, Princeton

McClelland DC (1965) Achievement motivation can be developed. Harv Bus Rev 43(November-December):68

McClelland DC (1985) How motives, skills, and values determine what people do. Am Psychol 40:812–825

McClelland DC, Winter DG (1969) Motivating economic achievement. Free Press, New York

McClelland DC, Atkinson JW, Clark RA, Lowell EL (1953) The achievement motive. Appleton, New York

Mehrabian A (1968) Male and female scales of the tendency to achieve. Educ Psychol Meas 28:493-502

Murray HA (1938) Explorations in personality. Oxford University Press, New York

Nurmi J-E, Salmela-Aro K (2005) Motivaatio elämänkaaren siirtymissä. In: Nurmi J-E, Salmela-Aro K (eds) Mikä meitä liikuttaa: modernin motivaatiopsykologian perusteet. PS-Kustannus, Jyväskylä, pp 54–66

Nuttin J (1984) Motivation, planning, and action. Leuven University Press and Lawrence Erlbaum Associates, Leuven

Penrose E (1959) The theory of the firm. Basil Blackwell, Oxford

Perwin L (2003) The science of personality. Oxford University Press, Oxford

Pinder CC (1984) Work motivation: theory, issues, and applications. Scott, Foresman, Glenview, IL Pinder CC (1998) Work motivation in organizational behavior. Prentice Hall, Upper Saddle River, NJ Price VA (1982) Type a behavior pattern: a model for research and practice. Academic, New York

Quigley NR, Tymon WG Jr (2006) Toward an integrated model of intrinsic motivation and career self-management. Career Dev Int 11:522–543

Reynolds PD, Bygrave WD, Autio E, Cox L, Hay M (2002) Global entrepreneurship monitor: 2002, executive report. Kauffman Center for Entrepreneurial Leadership, Kansas City, MO

Ryan RM, Deci EL (2000) Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. Am Psychol 55:68–78

Salmela-Aro K, Saisto T, Halmesmäki E, Nurmi J-E (2005) Motivaation merkitys siirryttäessä vanhemmuuteen. In: Nurmi J-E, Salmela-Aro K (eds) Mikä meitä liikuttaa, 2nd edn. PS kustannus, Jyväskylä, pp 84–104

Schlachet PJ (1969) The motivation to succeed and the memory for failure. In: Zimbardo PG (ed)
The cognitive control of motivation: the consequences of choice and dissonance. Scott
Foresman and Company, Glenview, IL

Segal G, Bogia D, Schoenfeld J (2005) The motivation to become an entrepreneur. International Journal of Entrepreneurial Behaviour and Research 11:42–57

Shane S (2008) The illusions of entrepreneurship. Yale University Press, New Haven

Shane S, Locke EA, Collins C (2003) Entrepreneurial motivation. Hum Resour Manag Rev 13:257–279

Spence JT, Helmreich RL (1978) Masculinity and femininity: their psychological dimensions, correlates, and antecedents. The University of Texas Press, Austin

Steel P, König CJ (2006) Integrating theories of motivation. Acad Manag Rev 31(4):880-913

Steward WJ Jr, Roth PL (2007) A meta-analysis of achievement motivation differences between entrepreneurs and managers. J Small Bus Manag 45:401–421

Tuuanaen M (1997) Finnish and US entrepreneurs' need for achievement: a cross-cultural analysis. In: Ann J, Carland J (eds) The proceedings of the academy of entrepreneurship. Academy of Entrepreneurship, Inc., Cullowhee, NC, pp 8–20

Wainer A, Rubin IM (1967) Motivation of R&D entrepreneurs; determinants of company success. Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Cambridge

Wilson EO (1998) Consilience: the unity of knowledge. Knopf, New York

Wong P-K, Lee L, Leung A (2006) Entrepreneurship by circumstances and abilities: the mediating role of job satisfaction and moderating role of self-efficacy. MPRA Paper No. 596

Zhao H, Seibert SE, Hills GE (2005) The mediating role of self-efficacy in the development of entrepreneurial intentions. J Appl Psychol 90:1265–1272

Zimbardo PG (1969) The cognitive control of motivation: the consequences of choice and dissonance. Scott Foresman and Company, Glenview, IL