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### From Readiness to Action: How Motivation Works

**Abstract:** We present a new theoretical construct labeled motivational readiness. It is defined as the inclination, whether or not ultimately implemented, to satisfy a desire. A general model of readiness is described which builds on the work of prior theories, including animal learning models and personality approaches, and which aims to integrate a variety of research findings across different domains of motivational research. Components of this model include the Want state (that is, an individual's currently active desire), and the Expectancy of being able to satisfy that Want. We maintain that the Want concept is the critical ingredient in motivational readiness: without it, readiness cannot exist. In contrast, some motivational readiness can exist without Expectancy. We also discuss the role of incentive in motivational readiness. Incentive is presently conceived of in terms of a Match between a Want and a Perceived Situational Affordance. Whereas in classic models incentive was portrayed as a first order determinant of motivational readiness, here we describe it as a second order factor which affects readiness by influencing Want, Expectancy, or both. The new model's relation to its theoretical predecessors, and its implications for future research, also are discussed.

**Key words:** motivation, want, expectancy, incentive

#### The Concept of Motivational Readiness<sup>1</sup>

Motivational readiness is the willingness or inclination to act in the service of a desire, whether or not this inclination ultimately culminates in action. Notions akin to motivational readiness have fascinated major psychological theorists for years, as this topic addresses a question which arguably lies at the core of all motivational research: how the forces which determine action arise. Hull wrote about "reaction potential" (a behavioral tendency which may or may not lead to action; Hull, 1951); Spence discussed "excitatory potential" (the tendency of a stimulus to evoke the response of approaching it; Spence, 1937, pp. 430-432), and Atkinson described the "tendency to act" (the readiness of an organism to engage in a given behavior; Atkinson, 1964, pp. 274-275). What all of these previous formulations have in common is their aim to elucidate the conditions under which readiness to act translates into actual behavior. Our theory is formulated to offer novel insights into this problem. Specifically, we outline a general model of how motivational readiness is formed, as well as its relationship to goals and action. We begin by defining

and describing the components of motivational readiness, follow by presenting our dual-threshold model that ties readiness to goal formation, and end by situating the concept of motivational readiness within the broader framework of cognitive energetics that ties goals to action. Although the current model is rooted in prior attempts to address the question of what motivates behavior, it goes beyond them in a number of ways elaborated in what follows.

#### Ingredients of Motivational Readiness

The motivational readiness construct consists of two first-order ingredients, Want and Expectancy; and one second-order component, Match. The Want is an outcome that an individual desires at any given moment. The Expectancy is the subjective likelihood (conscious or implicit) that the individual has assigned to the gratification of his or her Want. Finally, the Match is the degree of correspondence between a particular Want and the situation ally available items (or situational affordances) which can offer the potential to fulfill that Want. We will address each of these in turn.

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<sup>1</sup> For a more complete version of the current theory, see our paper On Motivational Readiness, in press at the *Psychological Review*.

## Want

The Want construct refers to an outcome that the individual desires at a given moment. In our model, the Want concept includes all types of desires, regardless of their source. Thus, our conception of Want includes desires of the approach and avoidance variety (e.g., Elliot, 1999); it also includes desires that are based on internal physiological deficits (e.g., Hull, 1951) as well as desires stemming from broad psychogenic needs (e.g., Deci & Ryan, 1985). Many previous paradigms fall under our broad heading of Want: for instance, in our model, motivations induced via semantic priming manipulations in social cognition experiments (e.g., Bargh & Barndollar, 1996), induced hunger and thirst in animal learning studies (e.g., Hull, 1951), and induced forces within field theory (Lewin, 1935, 1951) would all fall under the category of Wants. Even Wants described as situationally induced (e.g., Murray's 1938 discussion of "environmental presses" that elicit action) are instances of external pressures activating internal Wants. In our paradigm, whether the Want is chronic (e.g., a dispositional need for achievement), induced by prior conditions (e.g., hunger in an animal which has been deprived of food for 24 hours), or situationally primed (e.g., a semantically primed goal), it remains an internal state—a feeling of desire—that is experienced by the individual.

Our analysis does not imply that personality differences, physiological needs, and semantically primed motivations are the same in every way. All of these types of Wants obviously differ in many important details, such as how they come about, how they are experienced, and which individuals they are applicable to. However, in spite of their surface differences, each of the aforementioned sources of Want plays the same role in motivational readiness (see Equation 1). As such, their contributions to motivational readiness are assumed to be functionally equivalent.

Lastly, it is useful to divide the Want concept into two essential aspects: its *content* and its *magnitude*. The Want content describes what it is the individual desires, while the *Want magnitude* addresses how much he or she desires it. In other words, the content of a Want refers to the genre of any given desire (whether that be to sleep, read, find everlasting love, or climb Mount Kilimanjaro). Want content can vary in its level of specificity, ranging from very broad (e.g., the desire to feel loved and accepted by others) to very narrow (e.g., the desire for a chocolate chip cookie). The magnitude of a Want, on the other hand, refers to the strength or intensity of an individual's wish to fulfill his or her desire—that is, *how much* he or she wants to sleep, read, find everlasting love, or climb Mount Kilimanjaro. Separating the magnitude and content of a Want allows us to more precisely describe its impact on motivational readiness.

There is evidence that magnitude of *motivational readiness* generally tends to increase with the magnitude of an individual's Want state. Perin (1942) showed that rats who were experiencing a higher degree of hunger exhibited more motivation (actualized as bar-pressing). Hillman, Hunter, and Kimble (1953) demonstrated that depriving an animal of food or water increased its running speed toward

a goal box that contains the desired object. In the realm of achievement motivation, Atkinson (1954) interpreted Lowell's (1952) finding that high achievers performed an addition task faster as evidence that having a high degree of a particular motive (or Want) serves an energizing function. These and other empirical findings suggest that, unsurprisingly, the magnitude of a Want matters.

When a Want has been satisfied (that is, when its magnitude has been set to zero), any extant motivational readiness tends to vanish as well. When animals are satiated in learning studies, their performance on rewarded tasks declines to negligible levels; the reward has become meaningless to them (Koch & Daniel, 1945; Kimble, 1951). Ferguson and Bargh (2004) showed that participants who were non-thirsty exhibited significantly less accessibility of objects that were related to satisfying thirst (when compared to participants who were thirsty); their low Want state gave them no reason to be interested in objects that would satisfy that Want. Such findings imply that a lack of Want engenders a lack of motivational readiness, which point we will discuss later in the paper.

## Expectancy

Expectancy refers to the subjective likelihood an individual assigns to the gratification of a particular Want. This Expectancy can be conscious, but does not have to be. Expectancy is always tied to a specific Want; thus, it is defined as the individual's belief that he or she will be able to satisfy that Want by some means available to them. Much like Want, Expectancy can stem from a wide variety of sources. It can refer to the perceived probability of an outcome, such as one's assumed chances of winning a raffle (Edwards, 1951). It can be based upon one's self-efficacy in a particular domain (Bandura, 1977), or the extent to which one believes that his or her actions can produce a desired effect (Rotter, 1966). Expectancy can also take the form of a "generalized outcome expectancy," known as a trait level of optimism (e.g., Scheier & Carver, 1985; Carver & Scheier, 2001; Rotter, 1966; Segerstrom, Taylor, Kemeny, & Fahey, 1998; Wrosch & Scheier, 2003). Expectancy can be derived from one's perception of the difficulty involved in gratifying the Want in question (Vroom, 1964), as well as from lay theories or beliefs about the general nature of personal attributes (Dweck, 2006). Our notion of Expectancy thus differs from past models in that it encompasses many different types of Expectancy, whereas previous formulations (e.g., Atkinson's 1964 model of motivation and Tolman's 1955 theory of behavior) limited their definitions of Expectancy to the belief that a *specific act* will result in a specific reward or punishment.

## Perceived Affordance

Perceived Affordance concerns a feature of the environment which can be used to satisfy a particular Want. Gibson defined an affordance as what "the environment... offers the animal, what it provides or furnishes, for either good or ill" (Gibson, 1979, p. 127). Whereas Gibson viewed affordances as objective features of the environment, our term of Perceived Affordances admits environmental

inputs but also the influence of individuals' schemas and motivations. In other words, a Perceived Affordance is a tool within an individual's environment which can be used to gratify a Want. Almost any feature of a given environment can serve as an Affordance to some individuals under some circumstances: a cup of tea, a fishing rod, a computer, or even another person can all constitute Perceived Affordances which correspond to unique Wants. A cup of tea can satisfy one's thirst, a fishing rod one's desire for recreation, and a computer one's need to do work, while another person can fulfill one's desire for love or friendship. The motivational significance of an Affordance is that its realization—that is, the utilization of an Affordance for the satisfaction of a particular Want—calls for action. To obtain a cup of tea one has to boil water or visit a tea shop; to meet another person an individual has to venture out of his or her apartment; and so on. In summary, for a feature of the environment to function as an Affordance, it must correspond to an extant Want. This notion will be discussed further in the following section on Match.

### Match

As noted earlier, a perceived Affordance must match a particular Want in order for it to be motivationally relevant. This point was somewhat neglected in prior motivational models that defined situational incentives independently of the individual's desires. For instance, in Hull's (1951) or Spence's (1956) models *incentives* were operationally defined in terms of the amount of food in a goal box whereas Drive (corresponding to the Want construct in the present formulation) was defined in terms of the hours of food deprivation, without *formally* realizing that food in the goal box will not possess incentive value unless the animal is hungry. By contrast, in the present model incentive value is proportionate to the degree of Match. Finally, although motivational readiness can exist without a situational Match, the presence of Match will serve to augment motivational readiness (through its influence on either Want or Expectancy, as discussed later).

Match can exist in varying degrees as it depends on the extent of correspondence between a Perceived Affordance and a Want. An individual's Want contents can differ in their level of specificity (or dimensionality): for instance, a starving man can have the broad desire to eat anything that will provide sustenance, whereas a college student can have the very specific urge to obtain the newest Apple laptop in bright pink. Affordances can thus correspond to Wants on a number of dimensions. The starving man's Want has only one dimension (to find any type of food), and any Affordance which matches it on that dimension (e.g., a baked potato or a package of cookies) will provide a full Match; any Affordance which does not match it on that dimension (e.g., a picture frame or a shoe) will provide no Match at all. On the other hand, the college student's Want has multiple dimensions (she wants a computer that is made by Apple; it also has to be a laptop, and may need to be bright pink as well). An Affordance could provide either a full Match (if she finds an item with all three of the attributes she is looking for), a partial Match (if she finds a

laptop that is made by Apple, but is lime green), or no Match at all (if she arrives at the computer store but finds that it is closed for the day). Thus, the dimensions of both the Want and the Affordance play a role in determining the degree of Match between them.

A significant amount of empirical evidence attests to the notion that Match matters for motivation. Higgins' (2003, 2005) research on regulatory focus shows that individuals are more engaged in an activity, and more motivated to take part in it, if their manner of pursuing it *matches* their regulatory preferences. Individuals react with similarly heightened motivation when there is a Match between their preferred regulatory mode and their manner of pursuing an activity (Kruglanski et al., 2000; Kruglanski et al., 2013). In the realm of industrial-organizational psychology, research has shown that person-job fit (that is, the Match between an individual's wants or needs and the characteristics of the job; Kristof-Brown, Zimmerman, & Johnson, 2005, p. 284) leads to a variety of positive consequences for employees and organizations. More specifically, a high degree of person-job fit is associated with more career success and better performance on the job (Bretz & Judge, 1994; Caldwell & O'Reilly, 1990). Kristof-Brown, Zimmerman, and Johnson (2005) also find that intent to quit one's current job is highly negatively correlated with person-job fit, attesting to the power of Match to motivate an individual to remain at his or her current position.

**Match quest.** Whereas in prior motivational models, especially those of Hull (1943) and Atkinson (1964), incentives, presently defined as Matches, are indispensable to motivation in that they are assumed to *multiply* Wants (Drives, Motives) and Expectancies—in the present model, there can be motivational readiness even if the current situation does not offer a Match to one's Want. In such a situation one may simply engage in a search for a situation in which there is a higher chance of finding a Match. In other words, under these conditions, the person may engage in what we are referring to as a Match Quest. An individual who has a high degree of need or Want is likely to leave a current situation if it does not promise the Affordance he or she needs. If a hungry person finds that her refrigerator is empty, she will search elsewhere for food: her friend's refrigerator, the grocery store, or a restaurant. Schneider's (1987) work on how "the people make the place" showed that individuals with certain desires are attracted to organizations that meet their needs. Organizations, in turn, select individuals whose needs are able to be fulfilled by working at the company. Finally, individuals whose needs are not filled by the organization tend to leave the company in search of a better fit (representing a Match Quest). In the realm of animal research, Amsel's (1958) experiments demonstrated that if an incentive is given to an animal, and subsequently taken away, the animal will be *more* motivated to run in the absence of the incentive. That animal—and the individuals in the aforementioned examples—are engaging in a Match Quest because their current situation does not fulfill their needs. These findings, and others like them, suggest that (a) motivation can still exist without a present

incentive (or Match), and (b) the lack of incentive can actually lead to a heightened level of motivation, as it may instigate an effort to find a situation which will contain an appropriate incentive (or Match).

**Match as a second order determinant of motivational readiness.** We assume that incentives or Matches do not exert a direct effect on motivational readiness. Rather they work by increasing in some conditions the Expectancy factor or augmenting the Want factor, both of which are first order determinants of readiness. For instance, if cake is served at a party one's expectancy of satisfying one's Want for the same would rise, illustrating the effect of Match on expectancy. Similarly, noticing an attractive object at a store window may activate the Want for that object, illustrating an effect of Match on Want priming, etc. In that sense, the effects of Matches on motivational readiness are indirect or mediated via their impact on the two primary determinants of readiness that are Want and Expectancy.

**An Exponential Model**

Our model of motivational readiness can be formally expressed in the following equation:

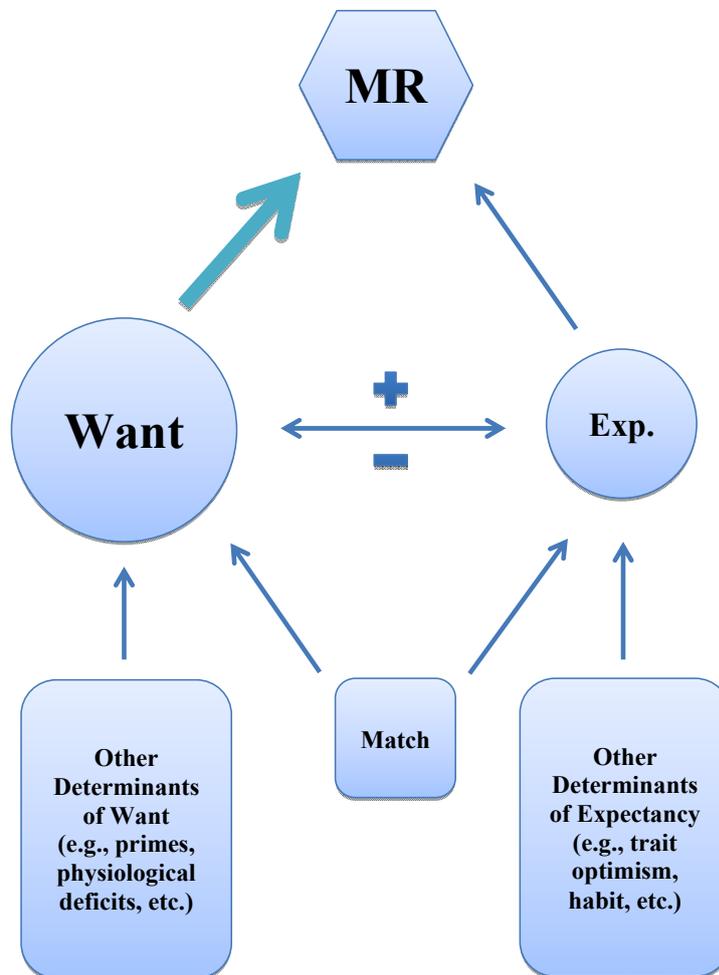
(1)  $MR = W^{E+1}$ , where  $0 \leq E \leq 1$

This equation serves to make clear two fundamental aspects of our theory. First, it shows that when Want is set to zero, motivational readiness will be zero regardless of one's level of Expectancy. Second, it demonstrates when Expectancy is set to zero, Want (and therefore motivational readiness) can still be present. In other words, when  $E = 0$ , motivational readiness will be equal to Want. Want is the crucial ingredient without which motivational readiness cannot exist, whereas Expectancy serves only to augment the present Want (which must first be there before it can be augmented). Importantly, incentive (or Match) is not included as an ingredient in this motivational readiness formula. This is due to the fact, elaborated above, that Match does not have a direct effect on motivational readiness; rather, it functions by activating or increasing either Want, Expectancy, or both (see Figure 1).

**Relation to Past Theories**

The present model grows out of the plethora of prior attempts that psychological theorists have made to identify the core determinants of motivated behavior. Our analysis builds on these important insights, while also departing from them on a number of significant points. Our theory differs from previous models in two noteworthy

Figure 1. Determinants of Motivational Readiness.



ways: by assigning unequal weight and function to Want and Expectancy, and by assuming that Match (or incentive) plays a secondary—as opposed to primary—role in motivational readiness. We will address each of these points in turn.

### Weight of Want and Expectancy

Past models have commonly described a multiplicative relationship between Want and Expectancy (or their theoretical counterparts). For example, Hull (1951) wrote that “reaction potential” is a product of Drive, Habit, and Incentive. Similarly, Atkinson (1964) wrote that the “tendency to act” is a product of Motive, Expectancy, and Incentive. In these formulations, Want and Expectancy are treated as functionally equivalent, as they are both assumed to contribute equally to motivation. All of the components of the formula are presumed to be necessary in order for readiness to occur; given that the models are multiplicative, if one of the aforementioned ingredients is missing, there can be no motivational readiness. In the present theory, however, we argue that Want and Expectancy play very different roles in motivational readiness. More specifically, Want is assumed to be crucial to motivational readiness, whereas Expectancy is not. Want is the driving force behind motivation, whereas Expectancy serves to merely amplify an existing Want.

This suggests that if Want exists, motivational readiness will exist as well, regardless of whether or not an Expectancy of Want satisfaction is present. A prisoner who has not been fed in days may be extremely motivated to eat, even if her current hope of attaining food is nil. A seafarer stranded on a desert island will be extremely motivated to scream at an airplane passing overhead, even if he has zero Expectancy of the people on that plane hearing him. On the other hand, Expectancy alone cannot create motivational readiness if there is no Want. A high expectancy of being able to write a novel will not motivate an individual to start typing unless some wish to do so is present as well. Thus, the asymmetry between Want and Expectancy is one important way in which the present model differs from past theories of motivation.

### The Role of Incentive

As already noted, incentive has played a major role in the classic models of motivation (e.g., Hull, 1951; Spence, 1956; Atkinson, 1964). However, our notion of incentive differs in three substantial ways from the definitions of it found in older models. (1) Prior models generally conceptualized incentive as independent of the Want state. However, we claim that it is the Match between a Want and a perceived Affordance that creates incentive value; it is impossible for an object in the environment to have an incentive value to an individual which is separate from the person’s desire for that object. (2) Atkinson’s (1964) and Hull’s (1951) theories of motivation assumed that incentive was critical to motivational readiness, and that motivational readiness therefore could not exist unless an incentive was present. We, on the other hand, argue that appreciable amounts of motivational readiness can occur even in the absence of a situational incentive, since the lack

of a present incentive can cause an individual to initiate a Match Quest. (3) Lastly, past models have treated incentive as an element in motivational readiness which functions at the same level as all of the other elements (e.g., Hull’s 1951  $D \times H \times K$  formulation, in which Drive (D), Habit (H), and Incentive (K) had to all be present in order for motivation to exist). In contrast, we do not claim that incentive contributes directly to motivational readiness; rather, we contend that it functions through its influence on Want and Expectancy. In what follows, these differences will be discussed in greater detail.

The concept of incentive found in older models (e.g., Hull, 1951; Tolman, 1949, 1955; Spence, 1956; Atkinson, 1964) generally refers to a feature of a situation that will motivate an individual; the relationship of that feature to one’s Want is not discussed. To reiterate, Hull (1943, 1951) and Spence (1956), for instance, described incentive as the amount of food in a goal box; the animal’s drive for food is portrayed as a wholly separate construct. Atkinson’s notion of incentive was described as “the value of a particular goal relative to other goals of that class” (Atkinson, 1964, p. 275); again, this makes no reference to the relationship between the concept of incentive and one’s Want or motive state. In contrast, we specifically define incentive as the Match between a Want state and situationally available opportunities for satisfying that Want state (i.e., Affordances). Food placed in a goal box will not serve as an incentive if the animal’s hunger drive is completely satiated.

The multiplicative formulas that Hull (1951) and Atkinson (1964) delineated assumed that incentive was a critical ingredient in motivational readiness. Hull’s (1951) formulation, in which reaction potential is a product of Drive, Habit, and Incentive, supposed that if any of the ingredients were set to zero, motivation would be at zero as well. Similarly, Atkinson’s (1964) model posited a multiplicative relationship between Motive, Expectancy, and Incentive. Here again, if any of the ingredients were at zero, motivation could not exist. We, on the other hand, do not assume that the absence of incentive will eliminate motivational readiness entirely. Rather, the absence of incentive (in a current situation) may cause an individual to initiate a Match Quest and find a situation that affords a better Match; such circumstances may even lead to an increase in motivational readiness.

Finally, past theories have described incentive as a primary component of motivation (cf. Atkinson, 1964; Hull, 1943, 1951). However, we posit that the Match component is of secondary importance to motivational readiness. Want and Expectancy, of their own accord, can create motivational readiness even when there is no incentive present—we described precisely such a situation earlier when we discussed the notion of Match Quest. Finally, we have argued that incentive (or Match) functions through activating a Want (for instance, when the sight of an advertisement makes one want the item in question; Story & French, 2004; Hastings et al., 2003) or an Expectancy (for instance, when the sight of dinner on the kitchen table heightens one’s Expectancy of eating soon). Because of

this, incentive (or Match) does not need to play a separate role in motivational readiness; its role is encompassed in its contributions to Want and Expectancy.

### From Readiness to Goals: The Dual-Threshold Model

The same factors—Want and Expectancy—combine to create both motivational readiness and goals. (Want and Expectancy are closely related to the desirability and attainability aspects involved in goal formation; see Kruglanski, 1996, for an overview of the goal construct). The main difference between motivational readiness and goal magnitude, then, are the *levels* of Want and Expectancy involved in each one. In our formulation, a minimum level of Expectancy—the Expectancy threshold—must be met before motivational readiness can transform into a goal. Similarly, a minimum level of motivational readiness—the motivational readiness threshold, to which both Want and Expectancy contribute—must be met in order for motivational readiness to be converted into a goal. In other words, motivational readiness that is determined exclusively by the Want factor will not suffice to translate readiness into goal formation. Rather, it is incumbent that the expectancy too be at or beyond threshold level for goal formation to be initiated. A level of motivational readiness which has not reached goal status is captured in Gollwitzer's (1990) notion of a *deliberation mindset*, in which an individual considers a goal without having yet decided to commit to it.

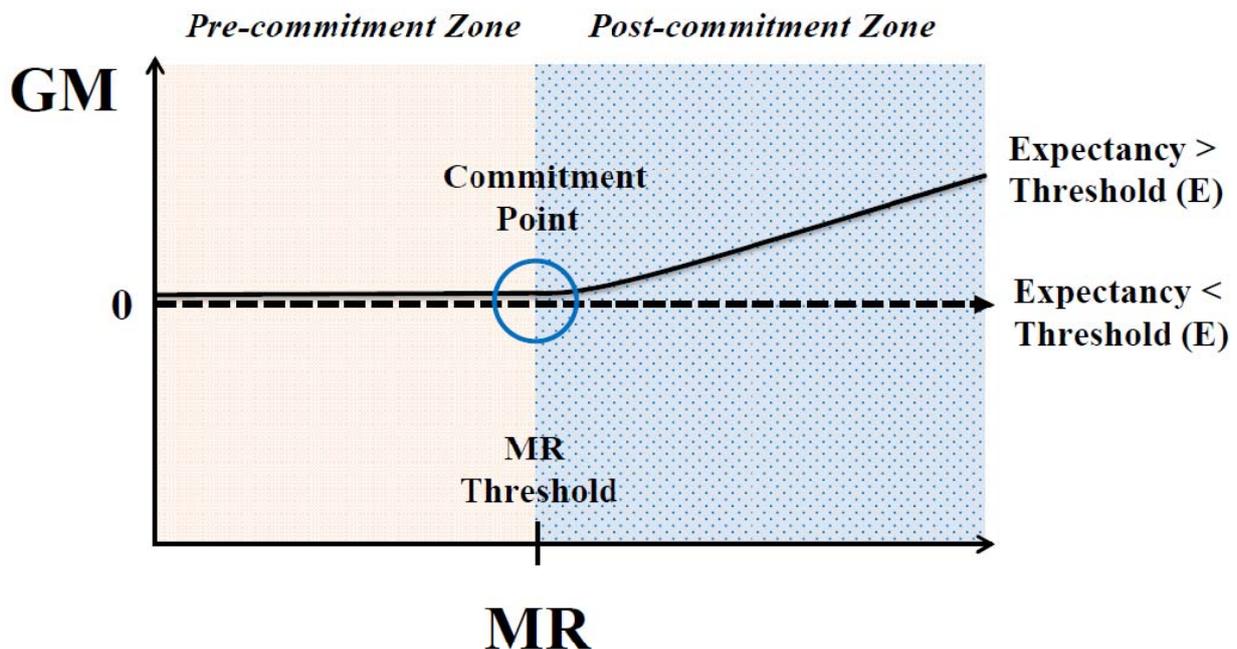
The function of the Expectancy and motivational readiness thresholds is illustrated in the following two equations:

- (2)  $GM = f(MR)$ , where  $MR \geq MR_t$  and  $E \geq E_t$
- (3)  $GM = 0$ , where  $MR < MR_t$  or  $E < E_t$

In the equations above, GM represents goal magnitude, MR represents motivational readiness, MR<sub>t</sub> represents the motivational readiness threshold, and E<sub>t</sub> represents the Expectancy threshold. These two equations are included in order to get across several important points. First, Equation 2 shows us that goal magnitude will be a function of motivational readiness only when each of the following conditions is met: MR must exceed the motivational readiness threshold, and E must exceed the Expectancy threshold. Equation 3 describes what happens if either of those conditions is not met: if MR is lower than the motivational readiness threshold, or E is lower than the Expectancy threshold, goal magnitude will be zero (though motivational readiness can still be above zero). See Figure 2 for a graphic representation of the dual-threshold model of goal commitment.

As a corollary to this, we assume that motivational readiness is divided into two essential regions: the pre-commitment region and the post-commitment region, which are separated by a commitment point. (See Figure 2.) The pre-commitment region occurs when MR is not high enough to meet the motivational readiness threshold, Expectancy is not high enough to meet the Expectancy threshold, or both. However, when both MR and Expectancy are above their respective thresholds, motivational readiness is pushed into the post-commitment region. Once past the commitment point and in the post-commitment region, motivational readiness becomes imbued with commitment and transforms into a goal.

Figure 2. The Dual-Threshold Model of Motivational Readiness.



### From Readiness to Action: Cognitive Energetics Theory

Of course, even goals which are imbued with commitment still only describe the *potential* for action, as opposed to actual behavior. Even the formation of goals does not specify when and under what conditions they will be actually pursued. For instance, one may have a goal of attending college but postpone it until the prior goal of advancing one's athletic career is accomplished, etc. But how exactly does motivational readiness undergo the transformation from readiness to action? Beyond goal importance the tendency to engage in goal driven behavior may depend on the actor's available pool of mental resources, the difficulty of executing such behavior, other competing goals, etc. These relations are specifically described in Cognitive Energetics Theory (CET; Kruglanski et al., 2012).

Specifically, CET is a theory of motivated cognition which addresses the distinction between goals and action. In the CET, purposeful cognitive activity is propelled by a driving force and hampered by a restraining force. The magnitude of the (potential) driving force is determined by one's amount of available mental resources and the importance of one's goal; the magnitude of the restraining force, on the other hand, is determined by the resource demands of the activity, the extent of one's tendency to conserve resources (the degree of one's cognitive miserliness), and other goals that may be competing for the available pool of resources. In order for action to occur, the magnitude of the *driving force* (of which goal importance—that is 'motivational readiness' in the post *commitment* zone—is one ingredient) must equal or exceed the magnitude of the *restraining force*. In other words an increase in post commitment motivational readiness, that is, increase in goal magnitude, will culminate in overt action if, and only if, the overall extent of the driving force is enough to match the restraining force. If the overall driving force is less than the restraining force, motivational readiness will exist without it translating into action.

### Operationalizing Readiness

Given that motivational readiness sometimes, but not always, culminates in action, the question of how to assess readiness is an important one. Prior theorists have measured the *tendency* to act (as opposed to action) in numerous ways. Libet, Gleason, Wright, and Pearl (1983) measured "readiness potential," or sustained scalp-recorded negativity that begins several hundred milliseconds before action commences; this is an intriguing instance of motivational readiness being measured prior to its culmination in behavior. Hull discussed potential indications of the intensity of a tendency to perform a particular act, including "the intensity of struggling movements (in grams), or the amount of salivary secretion (in cubic centimeters) produced by hungry organisms when presented with not-quite accessible food" (Hull, 1951, p. 13); these measurements, too, seem to provide a proxy for readiness that has not quite yet become action.

On those occasions when motivational readiness *does* culminate in action, one option for gauging its magnitude is to measure the intensity of behavioral engagement. Brown (1948) quantified motivational readiness of rats by measuring the tendency of the rats to pull at a harness when they were prevented from running down a runway to reach food. Higgins (2012) looked at the strength of individuals' engagement in an activity by measuring the amount of arm pressure they exerted during the activity. Indices of cardiovascular effort (e.g., Wright, 1998) may also offer an insight into the magnitude of an individual's motivational readiness. Of course, more precise empirical work, and more fine-grained methods of investigation, are necessary before the intensity of motivational readiness can be accurately pinned down in the pre-action phase.

### Discussion

The present model builds on prior formulations and goes beyond them in addressing the fundamentals of motivation. Although past theories touched on much of what our theory addresses, they tended to be limited to specific empirical paradigms (e.g. of animal learning, personality traits, or semantic priming procedures). In contrast, the present formulation offers an integrative approach applicable across paradigms. Thus, our notion of Want includes any currently felt desire, regardless of its source, and our concept of Expectancy refers to the subjective likelihood of Want satisfaction, however it is determined. We build on the seminal insights of past researchers (e.g., Atkinson, 1964) in assuming that the notions of Want and Expectancy are the building blocks of motivational readiness. However, we also go beyond classic models in several important ways. First, we claim that the Want construct is critical to motivational readiness, whereas Expectancy is not as essential. Second, our Match construct replaces and refines the notion of incentive found in previous literature. First, incentive is not independent of Want but rather is determined by a correspondence between a Want and a Perceived Affordance. Furthermore, incentive does not contribute to motivational readiness directly; rather, it functions through its influence on (and activation of) either Want or Expectancy. Lastly, an absence of incentive (or Match) does not imply that motivational readiness will be set to zero; rather, its absence may lead an individual to instigate a Match Quest in search of a situation that may offer a greater likelihood of want fulfillment. Evidence for the present model, cited in the preceding pages, has been culled from a variety of research domains and paradigms.

### Directions for Future Research

The present model of motivational readiness offers several new pathways for future research. First, it would be important to test the model as a whole. Prior research has offered piecemeal evidence to support various aspects of the model (such as that Want, Expectancy, and Match have some effects). However, future research work must also look at how the components of the model fit together and function as a whole. Global model-testing studies, carried

out via computer simulations, offer an interesting possibility along this line. Studies which simultaneously test the relationship between every component of the model (i.e., Want, Expectancy, and Match) would be another possibility.

Another area of interest for future research would be to investigate how Expectancy and Want are differentially weighed in different circumstances and across different individuals. Research has already shown that certain psychological states (e.g., regulatory focus and regulatory mode; Shah & Higgins, 1997; Orehek, Mauro, Kruglanski & van der Bles, 2012) lead individuals to place more or less of a focus on either Expectancy or value (here conceptualized as Want). It would be of interest to examine how other variables (e.g., need for closure or need for cognition; Kruglanski, 1996; Cacioppo & Petty, 1982) can affect individuals' tendency to weigh either Want or Expectancy more highly: for instance, perhaps a high level of need for closure would lead one to have more of a preference for high-expectancy outcomes, as those types of outcomes would be more likely to result in completion and a sense of closure.

There has already been much research on regulatory fit (Higgins, 2012), and it would be useful to investigate how this construct relates to, as well as differs from, our more broad and general notion of the Match between Want and Expectancy. For example, does a lack of fit affect individuals in the same way that a lack of Match does? Along the same lines, the potential effects of mismatch (that is, low or no degree of Match), and the cases in which it would lead to *lowered* motivational readiness by its impact on the Want and/or the Expectancy could fruitfully be explored in further research.

Another potential research direction would include investigating the extent to which the dimensionality of a Want is dependent upon its magnitude. For example, a greater degree of Want magnitude may lead that Want to become less dimensional. An individual who is dying of thirst will not care much about what he or she drinks, as long as it is liquid; on the other hand, an individual who is only slightly thirsty can still be selective and wait until he can find the particular brand of drink (s) he likes in order to satisfy his thirst. Future research could explore the different personality traits and situational variables which affect the dimensionality of various Wants, and the relation between Want dimensionality and Expectancy of Want attainment.

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