Chapter 12
Anxiety and the Approach of Idealistic Meaning

Mike Prentice and Ian McGregor

In this chapter, we review our research on meaning-related motivational processes. Specifically, we outline our Reactive Approach Motivation theory of anxiety and meaning regulation. Along the way we highlight some of our methodological approaches. Our research draws on humanistic-existential thought and sympathizes with some of the initial resistance to mainstream quantitative methodologies. However, we are also sympathetic to the promises of mainstream scientific method and propose that multimethod research, inspired by humanistic premises, can help to capture and understand human experiential processes and provide a way forward for a mutually satisfying future of humanistic-existential and positive psychological fields. We recommend that positive and humanistic psychologies can continue to advance our knowledge of meaning by forging new methodologies that may bridge gaps toward a more consilient science of human meaning, a recommendation we largely echo from a common ancestor of both humanistic and positive psychology, Rogers (1969; see also Greenwald 2012).

Historical Background

Existential and positive psychology are often compared and contrasted in oversimplified terms. Positive psychological commentators have long criticized existential thinkers for "harping on dread, on anguish, on despair, and the like" (Maslow 1969, p. 57),

and criticism in the other direction has accused the positive psychology movement of being too "Pollyanna" and "succumbing to our culture's tyranny of the positive attitude" (Robbins 2008, p. 101). While these overly general criticisms obscure legitimate similarities, simply pointing to the broad, shared goal of promoting well-adjusted and happy people (May 1969; Seligman 2002) glosses over legitimate differences and implicit assumptions. We can gain a better understanding of the divide by examining the historical, methodological, and epistemological differences between the fields.

Humanistic-Existential Psychology

The humanistic-existential movement in the North America proceeded on the shoulders of practicing clinical psychologists and humanists during the late 1950s and early 1960s (May 1969). At that time psychoanalysis had lost favor, the cognitive revolution had barely begun, and behaviorism was popular in part because of its attempt to identify psychology as a more systematic, objective science not to be bogged down in metaphor and empirically dubious constructs. The rejection of unwieldy psychoanalytic theory and behaviorism's dismissal of anything experiential left clinicians with the practical problem of having few tools in the toolbox to help thinking and experiencing persons. Many began to agree that the "present dominant images of man in psychology and psychiatry are inadequate and do not give us the foundation we need for our psychotherapy and research" (May 1969, p. 7). Humanistically oriented psychologists wanted a non-reductionistic framework that focused on personal experiences relevant to people in therapy (May 1969). They saw this as necessary to address uniquely human and personal anxieties over choices, identities, and values.

With its emphasis on the whole person, the "third force" (Bugental 1964) humanistic-existential movement chided mainstream psychological science for its aggregation-based, reductionistic approach to scientific progress with the reticence that this mode risked "taking the wonderful richness and complexity of concrete human lives and reducing their meanings to oversimplified formulas" (Robbins 2008, p. 106; cf. May 1969[1]). Humanistic-existential psychology accordingly placed a priority on case studies, phenomenology, and qualitative data. During this formative time, leading figures of humanistic thought in North America, such as Rogers and Maslow, did not advocate wholly abandoning the "objective" methods germane to the quantitative orientation for "existential" methods (Rogers 1969; distinguishing terms are Rogers' originals[2]). However, the humanistic-existential

[1] This reticence is often well-founded when it comes to developing a personalistic understanding of individual lives (Lamiell 2013); however, it is also not necessarily impossible to understand individual-level processes from aggregated approaches (Molenaar and Campbell 2009).

[2] We use the objective versus existential, quantitative versus qualitative, aggregated versus person-centered dichotomies interchangeably throughout as they all point to the same underlying distinction in orientation that drives fields apart (i.e. "hardness", see Simonton 2011).

ȧeld has since tended to lean a way from strictly quantitati ve approaches to data and inference (Friedman 2008).

Positive Psychology

Positive psychology arose around four decades after the humanistic-e xistential psychology mo vement with the goal of balancing the o ver-focus on psychopa - thology that had long dominated psychological science. Lik e the humanistic-existential mo vement before it, the positi ve psychology mo vement sa w its approach "prepar[ing] the way (for the ȧrst time) for a *psychology of mankind*" (Allport 1969, p. 94) by appreciating a broader swath of human existence and functioning (Seligman and Csikszentmihalyi 2000). Thus, positi ve psychology , like humanistic-existential psychology, sought to establish a ne w ȧeld for a more ennobled view of humans. Where positive psychology dif fers mark edly, however, is that it seeks this richer vie w via those mainstream quantitati ve methodologies humanistic-existential psychology had previously found inadequate. Thus, positive psychology makes "no claim of originality" in terms of its research questions, b ut it lar gely dismisses humanistically oriented research methods as unable to gener - ate a scientiȧc body of knowledge (Seligman and Csikszentmihalyi 2000).

Moving Forward

The positions stak ed out by the ȧelds reA̧ect a commonplace di vision in psychol - ogy whereby quantitati ve and qualitati ve orientations are tak en to be antithetical (Simonton 2011; see also Waterman 2013). Territories are mark ed, each group sees itself as that of the *truly True* scientist of the phenomena, and progress is stymied by conA̧ict and a lack of cooperation. Despite these inter group dynamics (Tajfel and Turner 1979), some humanistic psychologists ha ve expressed gratitude for positi ve psychology playing a "T rojan horse" and sneaking humanistic con - cerns back into the front door of mainstream psychology (Robbins 2008). This reconciliation process recalls the one that Rogers (1969, p. 88) had attempted 40 years prior when he suggested that "scientiȧc method itself pro vides a basis for rapprochement" between objecti ve and e xistential approaches. This inte gra- tive w ay forw ard is e xempliȧed by the emer ging ȧeld of e xperimental e xisten- tial psychology (Greenber g et al. 2004), which probes e xistential questions with an emphasis on e xperimental methods. This kind of approach narro ws the di vide between the ȧelds with a willingness to appreciate both the richness of human- istic-existential ideas and the po wer of di verse empirical and e xperimental meth - ods to capture that richness. We have tak en this approach in our o wn research on motivational mechanics of human meaning. We begin with a deep appreciation for existential humanistic ideas and their absorption in experiential-cultural narratives.

We then use diverse empirical methods to probe and better understand the richness of those ideas.

Reactive Approach Motivation Perspective on Meaning and Anxiety

Human Meaning

For as far back as historical records of human culture reach, the problem of meaning is a central concern. Indeed, a core focus of the world's religious and spiritual traditions is on meaning and meaninglessness. From mighty Gilgamesh's despair about becoming like mud, to King Solomon's lament about the folly of life, the question of meaning is a perennial human concern. More recently, psychotherapist Frankl (1959) placed the discovery of one's own meaning in life as the core task of contemporary humans. His work was both a continuation of humanity's philisophico-religious traditions of meaning and a formative moment for the humanistic-existential movement. Frankl's efforts both reflected and helped to drive a trend for the human quest for comprehending meaning to reach out of the humanities and into the social sciences.

Since Frankl's emphasis, correlational and qualitative research alike has demonstrated empirical links between lacking meaning and psychological ill-being (Crumbaugh and Maholick 1964; Yalom 1980) and between the experience of meaning and positive circumstances such as positive affect (King et al. 2006), need satisfaction (Prentice 2013), and coherence among self elements (McGregor and Little 1998; Sheldon and Kasser 1995). It is also higher after rising to challenging circumstances (Joseph and Linley 2005) and lower with national affluence (Oishi and Diener 2013).

In our own research, we build on these research trends and proceed from a social-ecological perspective (see Little 1983) that views humans as goal-seekers for both concrete and abstract goals (e.g., values and ideals). We use multiple methods (idiographic and normative correlational, experimental, and biological) to capture motivational processes of human meaning-making in a way that we hope might make humanistic-existential theorists wince less than they have at past, more myopic empirical approaches.

Our approach to meaning places a heavy emphasis on the importance of meaning for action. This approach to meaning differs from many researchers and theorists who often consider meaning primarily to be the outcome of some (potentially effortful) process, an assumption embedded, for example, in the term "meaning making." Although we do not deny that people can undertake certain actions in the attempt to cultivate a meaningful life or restore meaning (in fact, we approach these processes as well), what has proven particularly useful for us is to consider meaning as required for acting effectively in the first place, rather than as a goal per se.

Part of why we have focused on meaning in this way draws on a tradition of defining meaning as a feeling that arises from a kind of holistic coherence. This notion is based on understandings of meaning as the connectedness and continuity of one's self and experience, "the interlocking of life-links" (Simmel 1919; see also Dilthey 1910/2002). Following this line of thinking, we and our colleagues have defined meaning as a kind of cognitive coherence, as "mental representations of relationships between committed propositions" (Proulx and Heine 2010, p. 8; cf. Festinger 1957), or as a kind of self-elemental coherence, as "consonance among the temporally extended and contextually distributed elements of the self" (McGregor and Little 1998, p. 496). We have most recently defined meaning as "coherence between beliefs, salient goals, and perceptions of the environment that provides a foundation for our interactions with the world" (Tullett et al. 2013, p. 402). As a foundation for action, meaningful coherence facilitates optimal functioning, and the lack of it produces a worrisome signal about the status of one's pursuits. Further, under this view meaning becomes more of a by-product of putting the self together and moving effectively toward desired ends than an end per se.

Meaning Arises from the Pursuit of Approach-Motivated Ideals

William James suggested that "inner meaning can be *complete* and *valid*… only when the inner joy, courage, and endurance are joined with an ideal" (James 2010/1899, p. 177). Reactive approach motivation (RAM) theory echoes this contention that approach-related processes (i.e., joy and endurance) will confer their greatest benefit to our sense of meaning when they are in the service of idealistic goals. Approach motivation initiates or guides behavior toward desirable possibilities and events (Elliot 1999). We have recently provided evidence for propositions that support aspects of James' claim. Specifically, we have shown that idealistic goals are typically approach motivated, that both approach motivation and idealism surrounding goals facilitate meaning in life, and, further, that idealistic pursuit can both ward off and allay anxiety and existential malaise.

Support for the link between approach motivation and idealistic goal pursuit comes from a number of directions. One common measure of dispositional approach motivation is the Promotion Focus scale (Lockwood et al. 2002). Its items emphasize attentiveness to information related to moving toward personal ideals, e.g., "I typically strive to accomplish my ideals." It has been theoretically and empirically linked to approach motivation (Higgins 1997; Summerville and Roese 2008), and we have found that it is significantly correlated with various facets of approach motivation. Notably, it is more strongly related to persistence in pursuing desired goals than seeking fun (McGregor 2012). Why is it that a common measure of approach motivation focuses on approaching ideals and correlate least strongly with the approach of fun? Hedonic fun may be an unreliable lever of approach motivation because it is so easily frustrated, or because

hedonic fun appeals more to satisfaction upon consummation than the appetitive component of incentive motivation (Berridge 2004). The kinds of incentives that best maintain vigorous pursuit and meaning may therefore be the more idealistic kind because they can best energize and sustain approach. Further supporting the link between goal approach and idealism, in a recent study (McGregor 2012, Study 1) participants listed their four most salient personal goals in life, and then rated each on eight dimensions, four related to Idealistic Integrity and four related to Approach Motivation. Thus, this study employed an ideographic/nomothetic approach whereby participants are able to define their goals with their own meanings, and then rate them according to researcher-generated dimensions. The Idealistic Integrity dimensions were related to value congruence, conviction, self-identity, and idealism, which were all intercorrelated at 0.5 or greater. The Approach Motivation dimensions related to approaching incentives, determination to overcome obstacles, confidence in success, and perceived competence, and were also all intercorrelated at 0.5 or greater. Idealistic Integrity (alpha = 0.87) and Approach (alpha = 0.86) composites comprised of the averages of the four relevant dimensions correlated at $r = 0.71$, and they cohered in a single factor in a principal components analysis. Further evidence that the idealistic integrity of personal projects is approach motivated comes from other studies showing that participants' self-ratings of the extent to which personal projects have idealistic integrity are highly correlated with self-ratings of the extent to which they are approach motivated (McGregor et al. 2007, Study 3; McGregor et al. 2010a, Study 3; McGregor et al., 2013, Study 2). Together, these results support the notion that approach motivation and idealism are intimately linked in people's goal pursuit.

Research has also pointed to the important role of approach-motivation for inspired goal pursuit and meaning. In one study, we found that six dispositions related to approach motivation (Approach Motivation, Reward Sensitivity, Drive, Fun Seeking, Power, and Action Control) predicted Hope with an average $r = 0.41$. In two other studies three of four of approach-motivation-related variables (Approach Motivation, Reward Sensitivity, and Drive) predicted Presence of Meaning in life with an average $r = 0.22$ (McGregor 2012). As with Idealistic Integrity, the only aspect of Approach Motivation that did not significantly predict Presence of Meaning was Fun Seeking. The difficulty of fun in sustaining meaning is consistent with Klinger's (1977) view of concrete incentives as being vulnerable to frustration and habituation. Repeated hedonic pleasures are notorious for becoming boring after the repetition makes people blasé. People still seem to gravitate toward them, however, perhaps due to difficulties in affective forecasting beyond the first blush of excitement (cf., Sheldon et al. 2010), or perhaps because of the closer association of fun with "liking" upon consummation rather than "wanting" in appetitive pursuit (Berridge 2004), as mentioned above. Whatever the case, it is clear that approach-motivation is generally associated with confident goal pursuit and feelings of meaning.

Approach motivation constrains attention to incentive-relevant perceptions (E. Harmon-Jones and Gable 2009) and downregulates anxiety (Corr 2008; Nash et al. 2012). It is also associated with relative left-hemispheric and dopaminergic

activity characterized by feelings of vitality and conȧdence (Coan and Allen 2004; Harmon-Jones and Allen 1997; Pizzagalli et al. 2005). Together, the motivational clarity and freedom from anxious uncertainty can support a vivid, resonant sense of vigor (cf., Biswas-Diener et al. 2009; Kashdan et al. 2008). People label these coherent approach motivated experiences as meaningful (and not just merely happy) because, upon reẠection, the vigorous goal engagement feels supported by the (selective) subset of clear perceptions, purposes, and justiȧcations.

These studies underline the important role of approach motivation in feeling meaning, and research has also lent support to James' claim that meaning derived from approach-motivated pursuit is more complete and inspired when joined with ideals. McGregor and Little (1998) drew on Dilthey's (1910/2002) theorizing that people will experience meaning in life provided their goals have idealistic integrity across time and context. In two studies, McGregor and Little demonstrated that the extent to which people rated their self-generated personal projects (Little 1983) as being important, something they were committed to, and reẠecting their guiding values and own identity was positively associated with meaning in life.

Meaningful Ideals and Anxiety

Part of why idealistic approach to goals confers its beneȧt to feeling that one has a meaningful life may be due to the fact that it is antithetical to the experience of anxiety. Studies have demonstrated that everyday idealistic convictions are dispositionally associated with neural indices of reduced anxiety (i.e., amplitude of event related negativity in the anterior cingulate cortex; Inzlicht et al. 2009). Moreover, we directly tested whether idealistic religious devotion or concrete incentive motivation would be more strongly associated with reduced anxiety, as indexed by muted activity in the Anterior Cingulate Cortex. Participants were pre-selected based on their equally high scores for professed love of God and of chocolate. They were then confronted with an anxiety induction, followed by a randomly assigned chance to express and elaborate on their love of God, love of chocolate, or a mundane control-condition experience that was not related to God or chocolate. Results indicated that, compared to participants in the control condition, those in the chocolate condition had signiȧcantly lower scores on the neural measure of anxiety. Participants in the God condition, however, had signiȧcantly lower scores than participants in the chocolate condition (McGregor et al. 2012a). These results are consistent with the idea that although engagement with concrete incentives can activate approach motivated processes and relieve anxiety, engagement with idealistic incentives may do so more powerfully.

Perhaps the most compelling evidence for the view that idealistically approach-motivated goals defend against meaning-draining anxiety comes from research on compensatory conviction and reactive approach motivation. Experimentally manipulated anxious uncertainties, such as personal relationship insecurities or threats to personal competence, cause surges in idealistic conviction that mediate

the engagement of approach motivation (McGregor et al. 2007, 2010a, Studies 3 and 4; Nash et al. 2011). These same and related anxious uncertainty manipulations lead people to report more meaning in personal goals and identities, and also to report a more active search for meaning in life (McGregor et al. 2001, 2009; see also Landau et al. 2006, 2009a, b; Vess et al. 2009). Indeed, the tendency to spontaneously defend against anxious experiences with defensively idealistic and meaningful thoughts and actions has been woven in various ways into most of the prominent theories of threat and defense in social psychology (e.g., most recently, the Meaning Maintenance Model, Heine et al. 2006; see also Proulx et al. 2012).

From the RAM perspective, idealistic commitment is a lever for activating approach motivated states that shield people from the anxiety of everyday life and frequent existential reflection. The idealism, approach motivation, and absence of anxiety create a rewardingly meaningful cognitive and motivational state, and thereby become negatively reinforced and habitual in anxious circumstances. In sum, just as people escape from anxiety by engaging concrete and immediate incentives and experiences (Baumeister 1991), we propose that they can also use ideals to effectively transcend anxiety, and often to better effect. In both cases, approach-motivation processes are engaged, attention becomes constrained to the domain of the incentive, and unrelated anxieties recede. In sum, our research suggests idealistic meanings may be an essential element of human self-regulation that shields people from torment over conflicts, uncertainties, and insecurities of the human condition.

BIS Activation, Anxiety, and Meaninglessness

Temporal goals can be frustrating. Day-to-day social situations and environments often present conflicts and uncertainties. Further, research and theory inspired by humanistic thought suggests that the feeling that one's behavior is not self-initiated creates another source of frustration. These conflicts, whatever their source, can all lead to malaise and psychopathology. In contrast, optimal being is characterized by unconflicted pursuit of basic need satisfaction with self-concordant goals (e.g., Baumann et al. 2005; Horney 1950; Omodei, and Wearing 1990; Sheldon 2002; Sheldon and Elliot 1999; Sheldon and Schüler 2011).

Under the RAM view, various uncertainties activate the anxious arousal of the Behavioral Inhibition System. The BIS is a vertebrate goal regulation system that highlights the emotional salience of discordant and conflicting perceptions (Gray and McNaughton 2000). The direct goal inhibition and anxiously aroused vigilance of BIS activation facilitates a dilatory awareness and readiness for action conducive to switching to flight should flight become necessary. This BIS-regulated state is also conducive to finding viable alternative goals to pursue. The anxious vigilance of BIS activation is generally adaptive because it helps prevent perseverance on dangerous or unpromising goals. However, this process also involves the generalized inhibition of *all* ambient goals, so BIS activation

makes current goals feel dull (Gray and McNaughton 2000). Experientially then, the combination of anxious vigilance and inhibition of BIS activation is liable to leave people feeling empty and restless. Brain activity associated with BIS activation is also negatively correlated with brain activity related to approach motivation (Boureau and Dayan 2011; Nash et al. 2012, 2013). Thus BIS activation is opposed to the goal-shielded perceptual and emotional clarity afforded by approach motivation. The amotivated angst makes all imaginable horizons seem uninspiring, all action wearisome. We propose, therefore, that meaninglessness is an experiential label for BIS activation.

Evidence for the link between the BIS and feelings of both meaninglessness and restlessness comes from a study in which the seven dispositional variables related to the BIS (Stress, Attachment Anxiety, Neuroticism, Avoidance Motivation, BIS, Rumination, Uncertainty Aversion) all negatively predicted Hope with an average $r = -0.38$ (McGregor et al. 2012b). In two subsequent studies, four BIS-related variables (Avoidance Motivation, BIS, Rumination, Uncertainty Aversion) negatively correlated with the Presence of Meaning on average at $r = -0.19$ and positively correlated with the Search for Meaning on average at $r = 0.26$. These relations illustrate the dynamics outlined above: BIS activation blunts meaning and makes one vigilant to ȧnd it.

Anxious Uncertainty and Meaning Striving

Many theories related to meaning and human action contain propositions similar to RAM theory's that the source of meaninglessness lies in some form of frustration. Freud's drive theory is a prime example. Freud (1962) maintained that the libido was the wellspring for human action and that frustrating libidinal expression would lead to compensatory thoughts and behaviors to restore meaning. Many theories since have maintained some notion of a depleted resource inspiring meaning seeking, whether it be certainty (Van den Bos 2009), self-image (Steele 1988), meaning (Heine et al. 2006), control (Kay et al. 2008), or symbolic immortality (Greenberg et al. 2008). However, we argue for a relinquishing of the resource assumption in favor of understanding compensatory meaning seeking as a motivational process guided by the experience of goal frustration and anxiety (McGregor et al. 2012b). Speciȧcally, we propose that a threat to the progress of any important goal will generate anxiety, and people mount idealistic reactions because doing so is a particularly effective way to relieve the anxiety. That is, there is no particular resource that is being threatened nor regulated through meaning-related defenses. Rather, our model understands people to be goal-driven organisms that have a useful signal about the status of their pursuits in anxiety (Gray and McNaughton 2000). Anxiety is useful because it feels bad, and "drives" activity to get rid of the aversive feeling toward a renewed, sanguine approach to goals. We think this very simple process can account for phenomena that past models of threat and compensation have not, speciȧcally when defenses seem disparately

connected to a threat, if at all. Though it is sensible to expect that a threat to self-image would motivate activity to restore self-image, and this does indeed happen (Steele 1988), often people mount defenses that would seem to do nothing for a resource targeted by a particular threat, like when people respond to a relationship threat with risk-taking (Cavallo et al. 2009; Nash et al. 2013), for example. To account for this, we propose that threats are threatening due to their poignancy for ongoing goals, the potential interruption of ongoing goals leads to anxiety, and people mount idealistic defenses that relieve them of this anxiety. This way of conceptualizing the threat and defense process allows for the placement of an intervening variable that can both handle multiple inputs and generate novel predictions about behaviors that follow from the intervening variable, the hallmark of any useful motivational concept (Berridge 2004).

Thus, we propose that the best way for getting rid of the anxiety aroused by threatened goals is by reigniting approach motivation that goal impedances interrupt. This is because approach motivated states are characterized by a quality of attention and emotional experience that is constrained primarily to goal-relevant information and an absence of anxiety (Harmon-Jones et al. 2012; McGregor et al. 2012b). In this way RAM theory echoes Yalom's conclusion from his clinical case-based, humanistic-existential approach that when facing meaninglessness, that "One must immerse oneself in the river of life and let the question [of meaning] drift away" (Yalom 1980, p. 483).

Finally, a key proposition of RAM theory is that all goals are not created equal when it comes to "jumping back in the river" and providing a lever for approach motivation and meaning. Although it may be that one can easily approach concrete incentives like the jar of ice cream in the freezer when life becomes stressful, abstract ideals have a number of qualities that make them excellent levers for approach motivation. Specifically, ideals pull the person out of the temporal, "sodden routine" that is the realm of frustration; they are attended by a feeling of intellectual uplift; they provide a renewable sense of novel pursuit (James 2010/1899); and, most importantly for coherence, ideals help to organize goal and self-elemental hierarchies (cf. Carver and Scheier 1998). Stated simply, ideals feel good and alleviate the potential for anxiety because they activate approach motivation and maintain the sense that the self is moving forward as a whole. In support of this, idealistic thinking has been linked to similar patterns of brain activity that are seen in the pursuit of concrete incentives (Amodio et al. 2004; Fox and Davidson 1986) and feelings of happiness (Urry et al. 2004). The added benefit of ideals that concrete incentives lack, though, is that they resist habituation and can be privately promoted without frustration (Klinger 1977). As such, they provide a motivational and emotional oasis for reliable engagement of approach motivation processes.

We suggest that the various existentially-relevant threats in the experimental threat and defense literature, such as mortality salience, failure, isolation, and uncertainty, exhibit their effects because they are essentially goal conflicts that activate the BIS and thus a feeling of anxious uncertainty. People then seek to get rid of this aversive feeling by engaging in reactions that induce approach motivation. A number of studies support this view. Most importantly, we have generated

goal conflicts experimentally and shown that these conflicts cause people to adhere with more tenacity to their meaningful commitments (i.e., values, ideals, relationships, and worldviews). In these studies, we first primed people to pursue a goal (see Bargh et al. 2001) and then administered a threat in the same goal domain as the prime goal (e.g., achievement goal prime followed by an experimentally manipulated achievement failure). We have found that people become particularly idealistic and approach-motivated for personal projects (Nash et al. 2011, Study 2) when threat manipulations match a previously primed goal. They also become more idealistically opinionated and religiously extreme (McGregor et al., in press, Study 1). We extended our goal conflict interpretation to consider mortality salience, reasoning, like Ecclesiastes, that mortality salience would make *all* goals seem futile, and found that people primed with a goal before mortality salience were more reactively approach-motivated for their personal projects than participants who did not receive a goal prime (McGregor et al., in press, Study 3).

There is also evidence to support the notion that BIS-regulated anxiety mediates goal conflict and defensive responding. Under the same prime/threat experimental paradigm reviewed above, goal conflicted participants reported that the threat manipulation made them feel more *anxious, uncertain,* and *frustrated* (Nash et al. 2011, Study 1) than participants who did not receive a threat in the same domain as a goal prime, and we have recently replicated these effects of goal threats on anxiety in a series of other studies (Nash et al. 2013). Further underlining anxiety's generative role in defensive responding to goal conflict, allowing participants to misattribute their anxiety to completing online research, rather than the manipulated threat, prevented defensive responses (Nash et al. 2011, Study 4). Together our research suggests that a) what is threatening about threats is their capacity to generate goal conflict, and b) that this goal conflict arouses anxious uncertainty that drives idealistic reactions that facilitate the activation of approach-motivated states.

Integrative Perspectives

We are indebted to humanistic-existential theorists like Yalom and Frankl and advocates of the value of phenomenological approaches like James and Rogers in deriving some of the fundamental propositions of RAM theory. And in exploring meaning we are necessarily attempting to understand how a whole person confronts the everyday anxieties that life arouses. This is especially true given that we define meaning as a feeling that arise from coherence within the person that provides a basis for that person's coordinated actions. Our approach to providing evidence for these propositions relies heavily on taking it one piece at a time via statistical hypothesis testing on the aggregate, as this is what we are best equipped to do with our training. However, we remain optimistic that by describing basic motivational processes that attend meaning that resonate with conclusions from both other mainstream psychological research and from case studies (e.g., Yalom 1980) that our findings may provide some insight into processes at both the group

and individual levels. We think that keeping an eye toward generalizing *back down* to the individual can provide one of the key means for the "objective" researcher to remain "existential." On the other hand, the "existential" researcher that remains open to this possibility within "objective" approaches is also a step forward.

There may be more concrete ways to integrate in terms of methodological pluralism as well. As we note above, our research has often applied mixed ideographic/nomothetic methodologies, as well as both explicit self-report and psychophysiological approaches. Perhaps most importantly, we have demonstrated that reactive approach-motivation processes hold across nomothetic (e.g., religious extremism; McGregor et al. 2010a, b) and ideothetic measures of approach (e.g., personal projects; McGregor et al. 2012b). Further, and encouragingly, we have shown the same essential relations predicted by RAM theory between approach, idealism, presence of meaning, and anxious uncertainty with mixed ideographic/nomotehtic techniques and with self-report or psychophysiological indices (McGregor and Little 1998; McGregor 2012; Nash et al. 2013). We think the humanistic critiques of mainstream and positivistic psychology methods are warranted when attacking anemic and methodologically singular approaches that cannot include a representative range of human experience. We propose, however, that rigorous, multimethod approaches to the study of human experience, including correlational and experimental, self-report and neural, idiographic and nomothetic, etc., especially if guided by holistic humanistic ideas, might not be as objectionable as the kind of simple positivism that originally repulsed humanistic theorists. Other researchers have taken a similar position and examined humanstically-inspired motivational processes by testing humanistic propositions with mixed methodologies. In a 2001 review article in the *Journal of Humanistic Psychology*, Sheldon and Kasser (2001, p. 34) outlined "some mixed idiographic/nomothetic methodologies that we believe can successfully quantify subtle but important humanistic concepts, without sacriäcing the life meanings of individual participants," and research programs that used them. Research that continues to develop new methodologies to test theory is the best way forward to new understandings and theoretical reconciliations (Greenwald 2012). Further, recent developments in quantitative methodologies has started to take seriously the potential inferential problems of generalizing from group to person and echoes in statistical terms (Molenaar and Campbell 2009) the concerns expressed by qualitative researchers about obscuring the person-level processes through aggregation. Taking these trends together, it seems the integrative rapprochement via scientiäc method that Rogers (1969) articulated is continuing to unfold, albeit perhaps at a much slower pace than originally envisioned.

Conclusion

In this chapter, we have outlined our goal-regulation account of anxiety and meaning. We suggest that the slings and arrows of life exhibit their effects because they create motivational conÅict, which leads to anxious uncertainty. Approach

motivation provides an antidote to this anxiety , and we can understand the search for meaning as a generalized, approach-motivated response to anxious uncertainty. Though both concrete and idealistic pursuits can pro vide a venues for approach motivation, we ar gue that idealistic ones are more reliable and more potent le vers of approach. We submit that this basic moti vational model pro vides insight into the perennial human striving for idealistic meaning.

References

Allport, G. W. (1969). Comment on earlier chapters. In R. May (Ed.), *Existential psyc hology*. New York: Random House.

Amodio, D. M., Shah, J. Y., Sigelman, H., Brazy, P. C., & Harmon-Jones, E. (2004). Implicit regulatory focus associated with asymmetrical frontal cortical acti vity. *Journal of Experimental Social Psychology, 40*, 225–232.

Bargh, J. A., Gollwitzer, P. M., Lee-Chai, A., Barndollar, K., & Trötschel, R. (2001). The automated will: Nonconscious acti vation and pursuit of beha vioral goals. *Journal of P ersonality and Social Psychology, 81*, 1014–1027.

Baumann, N., Kaschel, R., & K uhl, J. (2005). Striving for unwanted goals: Stress-dependent discrepancies between e xplicit and implicit achie vement moti ves reduce subjecti ve well-being and increase psychosomatic symptoms. *Journal of P ersonality and Social Psyc hology, 89*, 781–799.

Baumeister, R. F. (1991). *Escaping the self*. New York: Basic Books.

Berridge, K. C. (2004). Moti vation concepts in beha vioral neuroscience. *Physiology and Behavior, 81*, 179–209.

Biswas-Diener, R., Kashdan, T., & King, L. A. (2009). Two traditions of happiness research, not two distinct types of happiness. *Journal of Positive Psychology, 4*, 208–211.

Boureau, Y. L., & Dayan, P . (2011). Opponenc y revisited: competition and cooperation between dopamine and serotonin. *Neuropsychopharmacology, 36*, 74–97.

Bugental, J. (1964). The third force in psychology. *Journal of Humanistic Psychology, 4*, 19–26.

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.

Cavallo, J. V., Fitzsimons, G. M., & Holmes, J. G. (2009). Taking chances in the f ace of threat: Romantic risk re gulation and approach moti vation. *Personality and Social Psyc hological Bulletin, 35*, 737–751.

Coan, J. A., & Allen, J. J. (2004). Frontal EEG asymmetry as a moderator and mediator of emo - tion. *Biological Psychology, 67*, 7–50.

Corr, P . J. (2008). *The r einforcement sensitivity theory of personality*. Cambridge: Cambridge University Press.

Crumbaugh, J. C., & Maholick, L. T. (1964). An e xperimental study in e xistentialism: The psychometric approach to Frankl' s concept of noogenic neurosis. *Journal of Clinical Psychology, 20*, 589–596.

Dilthey, W. (1910/2002). The categories of life. In R. A. Makreel, & F . Rodi (Eds.), *The formation of the historical world in the human sciences* (pp. 248–265). Princeton, NJ: Princeton University Press.

Elliot, A. (1999). Approach and a voidance moti vation and achie vement goals. *Educational Psychology, 34*, 169–189.

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

Fox, N. A., & Da vidson, R. J. (1986). Taste-elicited changes in f acial signs of emotion and the asymmetry of brain electrical activity in human newborns. *Neuropsychologia, 24*, 417–422.

Frankl, V. (1959). *Man's search for meaning.* Boston: Beacon Press.

Freud, S. (1962). *Three essays on the theory of sexuality.* New York: Basic Books (Original work published 1905).

Friedman, H. (2008). Humanistic and positive psychology: The methodological and epistemological divide. *The Humanistic Psychologist, 36*, 113–126.

Gray, J. A., & McNaughton, N. (2000). *The neuropsychology of anxiety: An enquiry into the functions of the septo-hippocampal system*. New York: Oxford University Press.

Greenberg, J., Koole, S. L., & Pyszczynski, T. (Eds.). (2004). *Handbook of experimental existential psychology*. New York: Guilford.

Greenberg, J., Solomon, S., & Arndt, J. (2008). A basic but uniquely human motivation: Terror management. In J. Y. Shah & W. L. Gardner (Eds.), *Handbook of Motivation Science* (pp. 114–134). New York: Guilford.

Greenwald, A. G. (2012). There is nothing so theoretical as a good method. *Perspectives on Psychological Science, 7*, 99–108.

Harmon-Jones, E., & Allen, J. J. B. (1997). Behavioral activation sensitivity and resting frontal EEG asymmetry: Covariation of putative indicators related to risk for mood disorders. *Journal of Abnormal Psychology, 106*, 159–163.

Harmon-Jones, E., & Gable, P. (2009). Neural activity underlying the effect of approach-motivated positive affect on narrowed attention. *Psychological Science, 20*, 406–409.

Harmon-Jones, C., Schmeichel, B. J., Inzlicht, M., & Harmon-Jones, E. (2012). Trait approach motivation relates to dissonance reduction. *Social Psychological and Personality Science, 2*, 21–28.

Heine, S. J., Proulx, T., & Vohs, K. D. (2006). The meaning maintenance model: On the coherence of social motivations. *Personality and Social Psychology Review, 10*, 88–110.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280–1300.

Horney, K. (1950). *Neurosis and human growth: The struggle towards self-realization*. New York: Norcross

Inzlicht, M., McGregor, I., Hirsh, J. B., & Nash, K. (2009). Neural markers of religious conviction. *Psychological Science, 20*, 385–392.

James, W. (2010). *The heart of William James. R. Richardson*. Cambridge: Harvard University Press.

Joseph, S., & Linley, P. A. (2005). Positive adjustment to threatening events: An organismic valuing perspective theory of growth through adversity. *Review of General Psychology, 9*, 262–280.

Kashdan, T. B., Biswas-Diener, R., & King, L. A. (2008). Reconsidering happiness: The costs of distinguishing between hedonics and eudaimonia. *Journal of Positive Psychology, 3*, 219–233.

Kay, A. C., Gaucher, D., Napier, J. L., Callan, M. J., & Laurin, K. (2008). God and the Government: Testing a compensatory control mechanism for the support of external systems. *Journal of Personality and Social Psychology, 95*, 18–35.

King, L. A., Hicks, J. A., Krull, J. L., & Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology, 90*, 179–196.

Klinger, E. (1977). *Meaning and void: Inner experience and the incentives in people's lives*. Minneapolis: University of Minnesota Publishers.

Lamiell, J. T. (2013). Statisticism in personality psychologists' use of trait constructs: What is it? How was it contracted? Is there a cure? *New Ideas in Psychology, 31*, 65–71.

Landau, M. J., Greenberg, J., Solomon, S., Pyszczynski, T., & Martens, A. (2006). Windows into nothingness: Terror management, meaninglessness, and negative reactions to modern art. *Journal of Personality and Social Psychology, 90*, 879–892.

Landau, M. J., Greenberg, J., & Sullivan, D. (2009a). Defending a coherent autobiography: When past events appear incoherent, mortality salience prompts compensatory bolstering of the past's significance and the future's orderliness. *Personality and Social Psychology Bulletin, 35*, 1012–1020.

Landau, M. J., Greenberg, J., Sullivan, D., Routledge, C., & Arndt, J. (2009b). The protective identity: Evidence that mortality salience heightens the clarity and coherence of the self-concept. *Journal of Experimental Social Psychology, 45*, 796–807.

Little, B. R. (1983). Personal projects: A rationale and method for investigation. *Environment and Behavior, 15*, 273–309.

Lockwood, P., Jordan, C., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of P ersonality and Social Psychology, 53*, 854–864.

Maslow, A. (1969). Remarks on e xistentialism and psychology . In R. May (Ed.), *Existential Psychology*. New York: Random House.

May, R. (Ed.). (1969). *Existential psychology*. New York: Random House.

McGregor (2012). *Further exploring the meaning in life nomological network: The roles of hope, approach motivation, and anxiety*. Raw data.

McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology, 74*, 494–512.

McGregor, I., Zanna, M. P., Holmes, J. G., & Spencer , S. J. (2001). Compensatory con viction in the face of personal uncertainty: Going to extremes and being oneself. *Journal of Personality and Social Psychology, 80*, 472–488.

McGregor, I., Gailliot, M. T., Vasquez, N., & Nash, K. (2007). Ideological and personal zeal reactions to threat among people with high self-esteem: Motivated promotion focus. *Personality and Social Psychology Bulletin, 33*, 1587–1599.

McGregor, I., Prentice, M., & Nash, K. (2009). Personal uncertainty management by reacti ve approach motivation. *Psychological Inquiry, 20*, 225–229.

McGregor, I., Nash, K., Mann, N., & Phills, C. E. (2010a). Anxious uncertainty and reacti ve approach motivation (RAM). *Journal of Personality and Social Psychology, 99*, 133–147.

McGregor, I., Nash, K., & Prentice, M. (2010b). Reacti ve approach moti vation (RAM) for reli - gion. *Journal of Personality and Social Psychology, 99*, 148–161.

McGregor, I., Nash, K. A., Prentice, M., Hirsh, J., & Inzlicht, M. (2012a). *God & c hocolate: Idealistic goals ar e mor e anxiolytic than concr ete incentives* (Manuscript in preparation). York University, Toronto, Canada.

McGregor, I., Prentice, M., & Nash, K. (2012b). Approaching relief: Compensatory ideals relieve threat-induced anxiety by promoting approach-motivated states. *Social Cognition, 30*, 689–714.

McGregor, I., Prentice, M., & Nash, K. A. (2013). Reactive approach motivation (RAM) for reli - gious, idealistic, and lifestyle extremes. *Journal of Social Issues*, *69*, 537–563.

Molenaar, P. C. M., & Campbell, C. G. (2009). The new person-speciȧc paradigm in psychology. *Current Directions in Psychology, 18*, 112–117.

Nash, K., McGre gor, I., & Prentice, M. (2011). Threat and defense as goal re gulation: From implicit goal-conA̧ict to anxious uncertainty, reactive approach moti vation (RAM), and ideo - logical extremism. *Journal of Personality and Social Psychology, 101*, 1291–1301.

Nash, K., Inzlicht, M., & McGre gor, I. (2012). Approach-related left prefrontal EEG asymmetry predicts muted error-related negativity. *Biological Psychology, 91*, 96–102.

Nash, K., Prentice, M., McGre gor, I., Phills, C., & Inzlicht, M. (2013). *Reactive appr oach moti - vation for risk: Why anxiety can cause risk y decision -making* (Manuscript submitted for publication).

Oishi, S., & Diener , E. (2013). Subjecti ve well-being and meaning in life: Cross-national analy - sis. In *Paper presented and the 14th annual meeting of the Society for P ersonality and Social Psychology*, New Orleans, LA.

Omodei, M. M., & Wearing, A. J. (1990). Need satisfaction and involvement in personal projects: Toward an inte grative model of subjecti ve well-being. *Journal of P ersonality and Social Psychology, 59*, 762–769.

Pizzagalli, D. A., Sherwood, R. J., Henriques, J. B., & Davidson, R. J. (2005). Frontal brain asym- metry and re ward responsi veness: A Source localization study . *Psychological Science , 16*, 805–813.

Prentice, M. (2013). *Autonomy, competence, and r elatedness satisfaction independently pr edict presence of meaning in life.* Raw data.

Proulx, T., & Heine, S. J. (2010). The frog in Kierkegaards beer: Finding meaning in the threat compensation literature. *Social and Personality Psychology Compass, 4*, 889–905.

Proulx, T., Inzlicht, M., & Harmon-Jones, E. (2012). Understanding all inconsistenc y compensa - tion as a palliative response to violated expectations. *Trends in Cognitive Science, 16*, 285–291.

Robbins, B. D. (2008). What is the good life? Positive psychology and the renaissance of humanistic psychology. *The Humanistic Psychologist, 36*, 96–112.
Rogers, C. (1969). Two divergent trends. In R. May (Ed.), *Existential psychology*. New York: Random.
Seligman, M. E. P . (2002). *Authentic happiness: Using the ne w positive psyc hology to r ealize your potential for lasting fulȧllment*. New York: Free Press.
Seligman, M. E. P ., & Csikszentmihalyi, M. (2000). Positi ve psychology: An introduction. *American Psychologist, 55*, 5–14.
Sheldon, K. M. (2002). The self-concordance model of healthy goal-stri ving: When personal goals correctly represent the person. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 65–86). Rochester, NY: University of Rochester Press.
Sheldon, K. M., & Elliot, A. J. (1999). Goal stri ving, need-satisfaction, and longitudinal well-being: The self-concordance model. *Journal of P ersonality and Social Psyc hology, 76*, 482–497.
Sheldon, K. M., & Kasser , T. (1995). Coherence and congruence: Two aspects of personality integration. *Journal of Personality and Social Psychology, 68*, 531–543.
Sheldon, K. M., & Kasser, T. (2001). Goals, congruence, and positi ve well-being: New empirical validation for humanistic ideas. *Journal of Humanistic Psychology, 41*, 30–50.
Sheldon, K. M., & Schüler , J. (2011). Needing, w anting, and ha ving: Inte grating moti ve disposi - tion theory and self-determination theory . *Journal of P ersonality and Social Psyc hology, 101*, 1106–1123.
Sheldon, K. M., Gunz, A., Nichols, C. P ., & Fer guson, Y. (2010). Extrinsic v alue orientation and affective forecasting: Ov erestimating the re wards, underestimating the costs. *Journal of Personality, 78*, 149–178.
Simmel, G. (1919). The adv enture. In D. K ettler (T rans.) *Philosophische K ultur. Gesammelte Essais.* Liepzig: Alfred Kroner.
Simonton, D. K. (2011). Positi ve psychology in historical and philosophical perspecti ve: Predicting its future from the past. In K. M. Sheldon, T. B. Kashdan, & M. F . Steger (Eds.), *Designing positive psychology: Taking stock and moving forward* (pp. 447–454). New York: Oxford University Press.
Steele, C. M. (1988). The psychology of self-afȧrmation: Sustaining the inte grity of the self. In L. Berk owitz (Ed.), *Advances in e xperimental social psyc hology* (Vol. 21, pp. 261–302). Orlando, FL: Academic Press.
Summerville, A., & Roese, N. J. (2008). Self-report measures of indi vidual differences in regula-tory focus: A cautionary note. *Journal of Research in Personality, 42*, 247–254.
Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conĄict. InW. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations*. Monterey, CA: Brooks-Cole.
Tullett, A. M., Prentice, M., Teper, R., Nash, K., Inzlicht, M., & McGre gor, I. (2013). Neural foundations of meaning and threat. In K. Markman, T. Proulx, & M. Lindber g (Eds.), *The Psychology of Meaning*. Washington, DC: American Psychological Association.
Urry, H. L., Nitschk e, J. B., Dolski, I., Jackson, D. C., Dalton, K. M., Mueller , C. J., et al. (2004). Making a life worth living: Neural correlates of well-being. *Psychological Science, 15*, 367–372.
Van den Bos, K. (2009). Making sense of life: The existential self trying to deal with personal uncertainty. *Psychological Inquiry, 20*, 197–217.
Vess, M., Routledge, C., Landau, M. J., & Arndt, J. (2009). The dynamics of death and meaning: The ef fects of death-rele vant cognitions and personal need for structure on perceptions of meaning in life. *Journal of Personality and Social Psychology, 97*, 728–744.
Waterman, A. S. (2013). The humanistic psychology-positi ve psychology di vide: Contrasts in philosophical foundations. *American Psychologist, 68*, 124–133.
Yalom, I. D. (1980). *Existential psychotherapy*. New York: Basic Books.