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ACT yearnings and SDT basic psychological needs: a conceptual comparison and integrative perspective

Stefano Mastino[1,2] · **Claudio Mulatti**[1]

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Abstract
This paper examines the conceptual relationship between the notion of yearnings in Acceptance and Commitment Therapy (ACT) and basic psychological needs in Self-Determination Theory (SDT). While recent literature has placed these constructs in dialogue, their structural relationship remains theoretically under-specified. Drawing on SDT's formal criteria for defining basic psychological needs, the present analysis offers a systematic comparison between ACT yearnings and SDT needs at both structural and content levels. Although the two frameworks differ in theoretical architecture, meaningful convergence emerges at motivational and partially conceptual levels. Alignment emerged between belonging and relatedness, and between competence constructs, whereas the relationship between meaning and autonomy appears partial. Other yearnings, including orientation, coherence, and feeling, do not demonstrate direct conceptual equivalence but may relate indirectly to need satisfaction through mindfulness-related flexibility processes. From an integrative perspective, psychological flexibility is proposed as a potential regulatory pathway through which engagement with core motivational criteria translates into adaptive functioning.

Keywords Acceptance and commitment therapy · Basic psychological needs · Motivation · Psychological flexibility · Self-determination theory · Yearnings

Introduction

In recent years, several empirical studies have attempted to integrate Acceptance and Commitment Therapy (ACT) and Self-Determination Theory (SDT) within applied contexts, such as physical activity promotion and sport psychology (Gutman et al., 2024; Lev-Arey et al., 2022, 2024). Beyond applied settings, points of convergence have also been noted at a theoretical level. Ryan (2021) highlighted a notable alignment between core ACT principles and SDT findings, particularly regarding autonomous motivation, autonomy support, and the use of internal resources for self-regulation. Similarly, in discussing euthymia, Hayes (2020) frames it as the balanced satisfaction of human needs (as defined in SDT) and ACT yearnings, where well-being reflects the functional accomplishment of deep motivational directions, and distress reflects their frustrated pursuit.

Building on this emerging dialogue, basic psychological needs (as articulated in SDT) and ACT yearnings are suggested to both function as organizing criteria that guide the evolution and coordination of psychological processes over time (Ciarrochi et al., 2022).

At the same time, the theoretical status of the relationship between ACT yearnings and SDT needs is not explicitly specified in the existing literature (Ciarrochi et al., 2022; Hayes, 2019, 2020; Hayes et al., 2022) nor is it clarified whether these constructs should be understood as equivalent, hierarchically related, or conceptually overlapping but distinct. As a result, although ACT and SDT have been brought into dialogue, the nature of their relation remains theoretically underspecified.

A related limitation concerns the theoretical status of ACT yearnings themselves. Within the ACT literature, yearnings are not formally defined as a distinct motivational construct,

✉ Stefano Mastino
stefano.mastino@unitn.it

Claudio Mulatti
Claudio.mulatti@unitn.it

[1] Department of Psychology and Cognitive Science (DiPSCo), University of Trento, Rovereto, Italy

[2] Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona, Verona, Italy

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nor are they systematically operationalized or empirically validated. Rather, they are introduced primarily as a conceptual and heuristic framework to describe deep and universal human longings that orient behavior toward meaning, connection, and effective functioning (Hayes, 2019).

As a result, the motivational implications of ACT's process model remain theoretically under-specified, limiting dialogue between ACT and SDT and constraining their potential integration.

The present paper addresses these gaps by proposing a comparison between ACT yearnings and SDT basic psychological needs. By clarifying the concepts, the paper aims to contribute to a more integrated motivational account of ACT, with implications for theory development, research, and clinical conceptualization.

Theoretical background

The concept of yearnings in acceptance and commitment therapy

Within ACT, the term yearnings refers to deep and recurrent motivational directions that underlie human striving and psychological functioning. In the ACT literature, yearnings are described as "deep and universal human longings" that orient individuals toward core domains of living, including belonging, coherence, feeling, orientation, self-directed meaning, and competence (Hayes, 2019). These yearnings are not presented as pathological in themselves. Rather, psychological suffering is conceptualized as emerging from rigid or maladaptive attempts to respond to them.

In a clinical and theoretical context, yearnings function as underlying motivational drivers that give direction to psychological processes. Hayes (2020) explicitly states that distressing emotional and behavioral patterns can be understood as mismanaged yearnings, emphasizing that "the deep yearning underneath pathological processes of change is not the problem" but that psychopathology represents ineffective solutions to legitimate human challenges. From this perspective, yearnings represent fundamental motivational directions that, when approached flexibly, are associated with vitality and well-being, and when pursued rigidly, contribute to psychological distress (Hayes, 2020).

More recent developments within the Extended Evolutionary Meta-Model (EEMM) and process-based therapy situate yearnings within a broader functional framework. Hayes et al. (2022) suggest that psychological dimensions and processes may be defined in terms of the selection criteria they serve. In this sense, yearnings are conceptualized not as formal latent constructs or operationalized variables, but as functional ends toward which affective, cognitive, attentional, self-related, motivational, and behavioral processes are oriented (Hayes et al., 2022). Their role is therefore primarily explanatory at a functional level: they clarify why certain processes promote adaptive functioning when flexibly enacted.

What emerges from the ACT literature is that yearnings are primarily presented in descriptive and functional terms, rather than as formally specified or empirically operationalized motivational constructs. In this sense, they serve as a functional and evolutionary language for articulating the broader purposes that psychological flexibility processes are intended to support (Hayes, 2019; Hayes et al., 2022).

Core ACT yearnings: definitions and associated processes

Having clarified the conceptual status of yearnings within ACT, this section examines each core yearning in more detail. For each yearning, a brief definition is provided together with the ACT process through which it is described as being addressed in a functional way, following Hayes' motivational framing of psychological flexibility (Hayes, 2019).

The yearning for belonging refers to the deep human desire to feel recognized, protected, and part of a community. From an evolutionary perspective, humans developed as social primates living in small groups, where acceptance often represented the difference between survival and exclusion (Hayes, 2019). Within ACT, this yearning is functionally addressed through the *self-as-context* process, which allows individuals to take perspective on their self-concepts and reduce rigidity in self-related narratives. By loosening attachment to a fixed or "special" self-image, this process may facilitate a deeper connection with one's authentic sense of self and open the possibility for more genuine and flexible interpersonal relationships (Hayes, 2019).

The yearning to feel is described as one of the most fundamental human desires. From early infancy, individuals actively seek emotional and sensory experiences through touch, exploration, and play, motivated by the intrinsic pleasure of experiencing itself (Hayes, 2019). This yearning encompasses both pleasant and unpleasant emotions when encountered in sufficiently safe contexts, as well as a drive toward emotional novelty and surprise. From an evolutionary standpoint, the capacity to feel has supported learning about danger and reward. In ACT, the process of *acceptance* is described as a way of responding to this yearning in a functional manner, by allowing emotions to be experienced openly rather than avoided, suppressed, or eliminated (Hayes, 2019).

The yearning for coherence reflects the human tendency to organize thoughts and inner experiences in a way that

makes sense of events and personal experience (Hayes, 2019). This yearning is often expressed through attempts to reduce ambiguity or contradiction, which may become rigid or maladaptive when individuals are fused with the content of their thoughts. In ACT, *cognitive defusion* is described as the process through which this yearning can be met more flexibly. Defusion allows individuals to relate to thoughts as mental events rather than literal truths, promoting what Hayes terms *functional coherence*: not the elimination or alignment of all thoughts, but the ability to attend to those that support effective and values-consistent living, while letting go of those that do not (Hayes, 2019).

The yearning for orientation refers to the desire to understand where one stands in the course of one's life and to have a sense of direction rather than feeling lost or disoriented (Hayes, 2019). This yearning reflects a natural impulse to establish reference points that guide action and experience. According to ACT, this yearning is functionally addressed through *contact with the present moment*, which involves shifting attention away from rigid preoccupation with the past or future and toward ongoing experience. By fostering present-moment awareness, individuals may regain a sense of orientation grounded in current possibilities rather than abstract evaluations or predictions (Hayes, 2019).

The yearning for meaning is described as a profound and persistent human motivation reflecting the need to freely and consciously choose the direction of one's life (Hayes, 2019). This yearning concerns the desire for a life that feels purposeful and self-directed, rather than governed by external demands or automatic patterns. Within ACT, the *values* process is described as the primary means through which this yearning is addressed. Acting in accordance with personally chosen values provides an ongoing source of motivation and a sense of meaning, even in the presence of difficulty or suffering (Hayes, 2019).

The yearning for competence refers to an innate desire to act effectively in the world and to develop skills that support adaptation and growth (Hayes, 2019). From early childhood, individuals are naturally drawn to learning and mastery, often experiencing the acquisition of new skills as intrinsically rewarding, particularly when activities align with authentic interests. In ACT, this yearning is described as being addressed through *committed action*, which involves building sustained patterns of behavior guided by personal values. When action is rooted in what truly matters to the individual, rather than in external approval or performance demands, the development of competence becomes a meaningful and vitality-enhancing process (Hayes, 2019).

It should be noted, however, that although each flexibility process is functionally associated with a specific yearning (Hayes, 2019), the six processes are simultaneously conceptualized as overlapping and mutually reinforcing rather than operating exclusively in one-to-one correspondence with individual motivational directions (Hayes et al., 2006).

Self-determination theory: the concept of need

SDT conceptualizes needs similarly to biological needs (Ryan & Deci, 2017). Biological needs refer to essential nutrients for physical survival, such as protection, water, and food. In the same way, SDT identifies basic psychological needs essential for development and well-being (Ryan & Deci, 2017). When satisfied, these needs promote growth and support integrated functioning. Conversely, need frustration can cause psychological harm, such as impaired development and distress (Deci & Ryan, 2000; Ryan, 1995; Ryan & Deci, 2017).

However, SDT differs from certain theoretical conceptualizations of biological needs. For instance, unlike Hull (1943), SDT holds that needs motivate action independently of the presence of a deprivation state, and cannot be fully satisfied (Ryan & Deci, 2017). In the field of psychology, SDT also diverges from need theories by Murray (1938) and McClelland (1985), as it does not link well-being to need strength. According to SDT, well-being depends directly on the extent to which a person's needs have been satisfied or frustrated, and on the degree to which social contexts support or hinder the satisfaction of those needs (Ryan & Deci, 2017).

Furthermore, in contrast to Murray (1938), SDT focuses on a limited set of fundamental needs, considered universal and innate, and independent of personal preferences or cultural influences. Another theory of needs that diverges from SDT is Maslow's (1943). Unlike Maslow's theory, SDT does not view needs as hierarchical or sequential. In fact, SDT sees needs as interdependent, and people must satisfy all of them in order to thrive (Ryan & Deci, 2017).

A hierarchical theory more consistent with SDT is Welzel's (2013), which distinguishes between survival and thriving priorities. Welzel affirmed that when people face material deprivation and threats, personal growth and emancipative values are suppressed. However, intrinsic priorities reemerge as conditions improve (Ryan & Deci, 2017; Welzel, 2013). Consistent with Welzel's view, SDT emphasizes that psychological needs are not suppressed by hardship, even if their fulfillment is obstructed. Greater external pressures reduce the resources available for well-being and growth, but the satisfaction of basic needs remains crucial, as shown, for example, under conditions of economic hardship (Rasskazova et al., 2016; Ryan & Deci, 2017).

There are theories that propose clearly defined criteria for identifying fundamental psychological needs, such as the one by Baumeister and Leary (1995). Drawing on these

criteria, Ryan and Deci (2017, pp. 250–252) highlight six specific criteria that a need must meet in order to be classified as such:

The satisfaction of the need must be strongly associated with positive outcomes such as psychological integrity, health, and well-being, while its frustration must result in negative outcomes in these domains.

The need must be clearly defined, specifying the experiences and behaviors that lead to well-being. For example, the need for autonomy clearly describes that, to satisfy it, people must be able to choose freely and endorse their actions.

The need must be essential for explaining empirical phenomena: it must be a functional concept, supported by empirical evidence showing the clear costs and benefits of its satisfaction or deprivation. The need must be oriented toward growth rather than deficit.

The need must belong to the correct category of variables. Psychological needs are variables that, when satisfied, lead to positive outcomes. For example, it would not make sense to define psychological or mental health as a need, since these represent outcomes that depend on the satisfaction of fundamental needs. The need must be universal, that is, present in all people, at all ages, and across all cultures. There must be an evolutionary adaptation that justifies its universality, providing adaptive advantages that explain its presence throughout human development.

Furthermore, Ryan and Deci (2017) suggest that for a need to be defined as fundamental, it must lead individuals to display behaviors of seeking or preferring certain types of experience. This aspect can be referred to as need as motivation, and it occurs temporally at the beginning of an action sequence, driving and energizing behavior (Ryan & Deci, 2017; Sheldon, 2011). Another aspect involves observing an increase in well-being once the experience has been completed. Such an outcome is referred to as need as requirement, occurring at the conclusion of the action when the need is fulfilled and a meaningful experiential improvement emerges (Ryan & Deci, 2017; Sheldon, 2011).

The three SDT needs

SDT identifies three basic psychological needs: competence, autonomy, and relatedness (Ryan & Deci, 2017).

The need for competence was conceptualized starting from the work of White (1959), who proposed that the active nature of infant learning, play, exploration, and other growth-oriented activities stemmed from an innate and autonomous human tendency to feel competent and to influence the environment (Ryan & Deci, 2017).

The need for autonomy is the need to act with a sense that one's actions are voluntary and fully endorsed by the self, without external pressure or influence (Ryan & Deci, 2017). Autonomous actions are willingly chosen and aligned with personal values and interests (Ryan & Deci, 2017). When a person acts autonomously, they fully engage their own resources, interests, and capacities. Conversely, externally regulated actions limit psychological resources and reduce performance quality (Ryan & Deci, 2017).

Finally, the need for relatedness refers to the need to feel socially connected (Baumeister & Leary, 1995; Bowlby, 1979; Ryan, 1995; Ryan & Deci, 2017). It involves being cared for by others, caring for others, and feeling integrated into social groups (Ryan & Deci, 2017), and is thus fulfilled through mutual caregiving (Deci & Ryan, 2014; Ryan & Deci, 2017). However, the need for relatedness goes beyond the mere need for care, help, and material resources for survival and adaptation; it also includes the desire for belonging and for feeling valued by others (Ryan & Deci, 2017). In fact, people have a fundamental need to be recognized, respected, and regarded as significant, while also striving to avoid rejection, insignificance, and disconnection (Ryan & Deci, 2017). Moreover, perceiving others as responsive and sensitive, and the opportunity to be so in return, fosters connection and a sense of belonging (Baumeister & Leary, 1995; Deci & Ryan, 2000; Ryan, 1993; Ryan & Deci, 2017).

The satisfaction of basic psychological needs can foster the emergence of intrinsic motivation, a core dimension of SDT (Ryan & Deci, 2017). Intrinsic motivation emerges only when an activity is perceived as inherently satisfying and enjoyable (Ryan & Deci, 2017). It can be defined as a natural tendency that leads people to engage in and sustain activities for the pleasure and satisfaction derived from the activity itself (Ryan & Deci, 2023). It is innate and evident in exploration and the pursuit of novelty and challenges, which build competence (Ryan & Deci, 2017). As a result, intrinsic motivation is seen not only as the fuel behind individual behaviors, but also as a driver of cognitive development and the formation of human personality (Ryan & Deci, 2017).

Conceptual comparison

A comparison between the concept of need (SDT) and yearnings (ACT)

As outlined in the previous sections, while SDT articulates a formal theory of basic psychological needs and specifies explicit criteria for their identification (Ryan & Deci, 2017), ACT does not provide an equally detailed theoretical framework defining yearnings or their classificatory boundaries. For this reason, the present comparison draws on SDT's

conceptual framework for basic psychological needs as a methodological reference point to structure a systematic examination of similarities and differences between the two constructs.

As previously discussed, except for their insatiable nature, SDT conceptualizes psychological needs similarly to biological needs (Ryan & Deci, 2017): just as hunger and thirst are necessary for bodily health, the satisfaction of autonomy, competence, and relatedness is seen as essential for psychological health and growth. ACT does not explicitly link yearnings to biological needs but frames them as evolutionarily significant. For example, the yearning for belonging is linked to the social evolution of primates (Hayes, 2019), whereas the yearning to feel is associated with survival functions, such as detecting danger or identifying sources of joy and fulfillment (Hayes, 2019). The yearnings for coherence, orientation, and meaning are also presented as visceral phenomena. Thus, ACT treats yearnings as natural, evolutionarily grounded, and universal motivations, despite not labeling them biological.

The comparison now proceeds through SDT's six formal criteria for defining basic psychological needs (Ryan & Deci, 2017).

The first criterion concerns psychological well-being and functioning. According to SDT, psychological needs are essential for optimal functioning. Their satisfaction fosters development, integrity, and vitality, while their frustration leads to social dysfunction, defensive behaviors, and psychological distress (Ryan & Deci, 2017).

From the ACT perspective, yearnings are conceptualized as evolutionarily grounded motivational directions that are deeply implicated in vitality and meaningful living (Hayes, 2019, 2020). ACT suggests that flourishing is supported when individuals engage with these yearnings through flexible psychological processes (Hayes, 2019; Hayes et al., 2022). Conversely, suffering emerges when attempts to respond to these same motivational directions become rigid, avoidant, or rule-governed in inflexible ways (Hayes, 2020). Thus, both frameworks link core motivational directions to psychological well-being, albeit through different explanatory pathways: SDT conceptualizes well-being as directly dependent on need satisfaction, whereas ACT emphasizes the role of psychological flexibility processes in shaping how engagement with yearnings translates into vitality or distress.

The second criterion emphasizes that needs are universal, meaning they are present at all stages of life and across cultures (Ryan & Deci, 2017). This implies that satisfying these needs is necessary not only for emotional well-being but also for healthy psychological and social development, establishing a direct link between need satisfaction and developmental outcomes.

In ACT, yearnings are likewise described as deep and fundamental human motivations with an evolutionary basis (Hayes, 2019) and are presented as broadly characteristic of human experience. However, ACT does not explicitly frame yearnings within a developmental model, nor does it formally specify their absence as leading to developmental failure. Rather, it focuses on how flexible versus rigid engagement with these motivational directions influences vitality and functioning over time (Hayes, 2019, 2020; Hayes et al., 2022). Thus, while ACT does not articulate a lifespan developmental theory, its emphasis on sustained psychological flexibility suggests a pathway through which engagement with yearnings may support adaptive functioning across different stages of life.

Another SDT criterion is that a need must be clearly defined and linked to specific behaviors that lead to well-being. In SDT, basic needs are satisfied through actions that possess particular experiential qualities, for example, autonomy is fulfilled when behavior is experienced as volitional and self-endorsed.

In ACT, yearnings are likewise connected to identifiable domains of experience and action associated with vitality (Hayes, 2019, 2020). However, rather than prescribing specific behaviors, ACT situates these motivational directions within a process-based framework. Psychological flexibility processes, such as acceptance, cognitive defusion, self-as-context, and values-based committed action, enable individuals to enact context-sensitive, values-consistent behaviors aligned with their yearnings (Hayes, 2019; Hayes et al., 2022). From a functional contextualist perspective, it is not a fixed behavior that fulfills a yearning, but the flexible and adaptive engagement with situational demands that supports well-being (Hayes et al., 2013). In this sense, although articulated through a regulatory rather than a prescriptive model, ACT remains coherent with this criterion by linking yearnings to experiential and behavioral patterns associated with psychological vitality.

The following criterion states that needs should help explain empirical phenomena. They must be functional concepts supported by evidence showing the benefits of their satisfaction and the costs of their frustration.

In ACT, yearnings are conceptualized as central motivational directions that orient human behavior (Hayes, 2019; Hayes et al., 2022). They contribute to the theoretical explanation of maladaptive patterns, insofar as rigid control strategies and experiential avoidance can be understood as inflexible attempts to respond to these underlying motivational directions (Hayes, 2019, 2020). However, unlike SDT needs, yearnings have not been systematically operationalized as independent empirical constructs, nor has their "satisfaction" or "frustration" been directly examined in relation to psychological outcomes. Empirical ACT research has

primarily focused on psychological flexibility processes rather than on the direct measurement of yearnings themselves. Consequently, while yearnings play a meaningful explanatory role at a conceptual and functional level within ACT, their empirical status is less formally delineated compared to SDT needs. In this regard, ACT satisfies the explanatory intent of the criterion at a functional level, while remaining less empirically formalized than SDT.

Another criterion states that a need must fall within the appropriate category of variables. Psychological needs are conceived as antecedent conditions that, when satisfied, contribute to positive outcomes; they are not outcomes themselves. For example, psychological health is not a need but a result of need satisfaction (Ryan & Deci, 2017).

Within ACT, yearnings are likewise conceptualized as motivational directions rather than as outcomes. They orient behavior toward domains associated with vitality and meaningful living (Hayes, 2019; Hayes et al., 2022; Tunç et al., 2023). Although empirical research has primarily examined psychological flexibility processes, such processes are understood as facilitating adaptive engagement with these underlying motivational directions (Ong et al., 2024). In this respect, yearnings occupy the appropriate conceptual category, functioning as motivational antecedents rather than as indicators of well-being.

Furthermore, SDT does not conceptualize basic psychological needs as hierarchical. The three needs are considered interdependent and essential across contexts, without requiring sequential satisfaction (Ryan & Deci, 2017). Similarly, ACT does not organize yearnings within a rigid hierarchy, nor does it designate any single yearning as inherently more fundamental than the others (Hayes, 2019). In this respect, both models avoid a fixed hierarchical ordering and instead underscore the dynamic interplay of core motivational dimensions.

Comparison between individual ACT yearnings and SDT needs

Having examined the structural similarities and differences between the general concepts of SDT needs and ACT yearnings, the following section turns to a more detailed comparison of the individual SDT basic needs and ACT yearnings, exploring their specific areas of conceptual convergence and divergence.

Among the ACT yearnings, the ACT yearning for belonging closely parallels SDT's need for relatedness, both reflecting the need for recognition and social connection. Both refer to the fundamental human need to feel recognized, accepted, and part of a meaningful community. We can therefore affirm that the ACT yearning for belonging and the SDT need for relatedness are essentially equivalent.

Another particularly straightforward comparison can be drawn between ACT's yearning for competence and the SDT need for competence. Both concepts refer to the deep desire to feel effective, to develop one's abilities in a skillful and constructive way. Given this strong convergence in meaning, we can conclude that the yearning for competence and the need for competence substantially coincide.

There is also a notable alignment between the SDT need for autonomy and the ACT yearning for meaning. The need for autonomy refers to the fundamental human necessity of experiencing oneself as the origin of one's own actions, feeling that those actions are self-endorsed and emanate from one's self (Ryan & Deci, 2017). The yearning for meaning, on the other hand, is described as the need to consciously and freely choose one's own life direction (Hayes, 2019). The similarities between these two concepts are also reflected in the words of Hayes (2019, Chap. 13):

> There is no yearning more important to human beings than to freely pick and pursue our life direction. A clear sense of self-directed meaning provides us with an essentially inexhaustible supply of motivation.

Both the SDT need for autonomy and the ACT yearning for meaning emphasize that human well-being derives from recognizing and following what is truly important to oneself, and that losing this alignment leads to forms of suffering, disconnection, and alienation.

However, there is a concept similar to ACT's yearning for meaning, referred to as the need for meaning. Need for meaning can be defined in two ways: the first refers to the extent to which people feel a sense of fulfillment and satisfaction when reflecting on their life so far; the second refers to life purposes, that is, whether people feel they are living in a way that pursues what they find important (Ryan & Deci, 2017). The yearning for meaning appears to encompass the broader definition of meaning that involves life goals (Stoddard & Afari, 2014). However, SDT does not consider need for meaning as a basic psychological need within its framework (Ryan & Deci, 2017). The empirical evidence indicates that the need for meaning can be viewed as an outcome or consequence of fulfilling the three basic psychological needs, and therefore cannot be considered a need in its own right (DeHaan et al., 2016; Martela & Ryan, 2016; Ryan & Deci, 2017): the more consistently the basic needs are satisfied, the more individuals report a sense of meaning in life.

In summary, ACT's concept of yearning for meaning seems to integrate both autonomy and need for meaning, whereas SDT maintains a clear conceptual distinction between these dimensions. For this reason, the overlap between the two dimensions is only partial.

Synthesis

At a structural level, important similarities coexist with significant differences. Both SDT and ACT identify core motivational directions that are evolutionarily grounded, broadly universal, and centrally implicated in psychological vitality. In both frameworks, human suffering is not attributed to the existence of these motivational tendencies themselves, but to dysfunctional conditions surrounding their engagement, need frustration in SDT and rigid or inflexible responding in ACT.

However, the two models differ substantially in their theoretical architecture. SDT articulates a formally defined theory of basic psychological needs, supported by explicit criteria for classification and a substantial empirical literature linking need satisfaction and frustration to well-being outcomes. Within SDT, well-being is conceptualized as directly dependent on the degree to which autonomy, competence, and relatedness are satisfied.

In contrast, ACT does not conceptualize well-being as the direct result of yearning satisfaction, but situates vitality within a process-based framework in which psychological flexibility regulates how individuals engage with these motivational orientations, determining whether vitality or distress emerges.

At a more specific level, varying degrees of conceptual convergence were observed. A particularly strong alignment emerged between the ACT yearning for belonging and SDT's need for relatedness, as both constructs emphasize recognition, acceptance, and meaningful social connection. Similarly, the ACT yearning for competence closely parallels SDT's need for competence, as both refer to the desire to act effectively and develop one's abilities in adaptive and constructive ways. In these cases, the convergence appears substantial at a semantic and motivational level, even though the constructs remain embedded in different theoretical systems.

A more partial alignment was identified between the ACT yearning for meaning and SDT's need for autonomy. While autonomy concerns the experiential quality of volition and self-endorsement in action, the yearning for meaning emphasizes the conscious and freely chosen direction of one's life. Both constructs center on self-directedness and authenticity, yet they operate at slightly different conceptual levels: autonomy refers to how actions are experienced, whereas meaning refers to the broader direction toward which actions are oriented. Their overlap is therefore significant but not complete.

The remaining ACT yearnings, orientation, coherence, and the desire to feel, do not demonstrate direct equivalence with any of SDT's three basic needs.

Integrative perspective: psychological flexibility as a pathway to SDT need satisfaction

As highlighted in the preceding comparison, SDT and ACT differ in theoretical architecture and ontological status, yet they converge at a motivational and, in part, conceptual level. In particular, the ACT yearnings for meaning, competence, and belonging substantially overlap with SDT's needs for autonomy, competence, and relatedness. Moreover, within the evolutionary and process-based perspective articulated in ACT, both needs and yearnings may be understood as motivational selection criteria that orient behavior toward adaptive domains of functioning (Hayes et al., 2022).

In light of this convergence, from an integrative standpoint, the ACT processes most closely associated with these yearnings (values, committed action, and self-as-context) may be considered regulatory processes that facilitate experiential conditions consistent with the satisfaction of autonomy, competence, and relatedness as described in SDT.

The remaining ACT yearnings related to orientation, coherence, and feeling do not demonstrate a direct conceptual correspondence with SDT's basic psychological needs. However, when considering that the flexibility processes associated with these yearnings (present-moment awareness, acceptance, and cognitive defusion), together with self-as-context, are conceptualized within ACT as central components of mindfulness, the connection becomes more plausible.

The SDT literature, in fact, highlights that mindfulness promotes autonomy and overall need satisfaction (Hodgins & Knee, 2002; Ryan & Deci, 2017). This facilitation seems to occur because mindfulness allows individuals to pay attention to internal and external experiences with openness, enabling them to enact behaviors consistent with their values, needs, and perceptions (Ryan & Deci, 2017).

In contrast, in the absence of open awareness, people are less capable of selecting behaviors aligned with their needs and are more likely to act based on automatic processes that hinder the satisfaction of those needs (Ryan & Deci, 2017). Empirical studies confirm this link: Brown and Ryan (2003) found that mindfulness predicts autonomy, need satisfaction, and self-regulation. Additional evidence comes from the research of Grégoire et al. (2012), which shows that autonomy mediates the relationship between mindfulness and various indices of psychological well-being. The study by Kee and Wang (2008) also indicates that mindfulness skills are associated with task engagement and athletic performance, thus supporting the need for competence.

Furthermore, Gazla (2015) proposes a connection between psychological flexibility, improved performance, and a sense of competence. Mindfulness skills also appear

to be linked to the satisfaction of the need for relatedness. Specifically, they are associated with greater satisfaction in romantic relationships, more effective responses to relational challenges, and the ability to express one's needs in interpersonal contexts (Barnes et al., 2007; Gazla, 2015). Additionally, greater overall awareness may be associated with increased sensitivity to others' needs, enhancing relational capacities (Gazla, 2015).

Looking at empirical literature, the work of Gazla (2015) emerges as the only significant work exploring in detail the connection between SDT needs and psychological flexibility processes. Gazla reported strong associations between psychological flexibility and perceived satisfaction of autonomy and competence, with more moderate links to relatedness. Mediation analyses also indicated that basic need satisfaction plays a role in explaining the relationship between psychological flexibility and mental health outcomes.

This overlap suggests that the pathway from psychological flexibility to need satisfaction may operate, at least in part, through metacognitive mechanisms, and that metacognitive dysfunction may represent a factor that limits the effectiveness of this pathway (Raffone et al., 2026).

The evidence reviewed above is consistent with the broader ACT model, in which the six flexibility processes, although each functionally associated with a specific yearning (Hayes, 2019), are simultaneously conceptualized as overlapping and mutually reinforcing rather than operating exclusively in one-to-one correspondence with individual motivational directions (Hayes et al., 2006).

Taken together, the theoretical considerations advanced in this section suggest that psychological flexibility, and the interconnected processes through which it is enacted, may serve as a meaningful pathway to the satisfaction of basic psychological needs as conceptualized within SDT.

Conclusions, implications and future directions

The present comparison aimed to clarify the conceptual relationship between ACT yearnings and SDT basic psychological needs, addressing a domain that has remained theoretically under-specified despite increasing dialogue between the two traditions. ACT is articulated as a process-based model centered on psychological flexibility, within which yearnings are described as deep motivational orientations that give direction to regulatory processes (Hayes, 2019). SDT, by contrast, articulates a substantive theory of basic psychological needs conceptualized as psychological nutrients directly linked to well-being and development (Ryan & Deci, 2017).

The comparison conducted in this paper suggests that, although the two frameworks differ in theoretical architecture and ontological status, meaningful convergence emerges at a motivational and partly conceptual level. Strong alignment was observed between the ACT yearning for belonging and SDT's need for relatedness, and between the respective competence constructs. The relationship between meaning and autonomy appears partial, reflecting overlap in self-directedness while differing in conceptual scope. Other yearnings (orientation, coherence, and feeling) do not demonstrate direct conceptual equivalence with SDT needs. However, the mindfulness-related processes through which these yearnings are enacted suggest possible indirect connections to need satisfaction. A central distinction between the two models lies in their explanatory structure. In SDT, well-being is conceptualized as directly dependent on the satisfaction or frustration of basic psychological needs. In ACT, adaptive functioning is situated within a regulatory framework in which psychological flexibility determines how individuals engage with motivational orientations.

In light of the observed convergence between several ACT yearnings and SDT basic psychological needs, and considering that mindfulness-related processes have been associated with need-supportive functioning, a possible integrative implication emerges. Specifically, psychological flexibility processes may be understood as functional pathways through which experiential and behavioral conditions conducive to autonomy, competence, and relatedness satisfaction are facilitated.

Notably, several of these processes, particularly cognitive defusion, self-as-context, and present-moment awareness, seem to share overlapping features with metacognitive functioning, insofar as they involve an observational stance toward one's thoughts and internal experiences. This overlap raises the possibility that promoting psychological flexibility may represent a particularly relevant pathway to basic need satisfaction in populations where metacognitive functioning is compromised, such as individuals with eating disorders, where metacognitive dysfunction has been identified as a significant maintaining factor (Raffone et al., 2026).

The framework proposed here also carries implications across the lifespan. The SDT needs for autonomy, competence, and relatedness remain psychologically relevant across all developmental stages, including late adulthood. Recent approaches in long-term care, such as dementia citizenship, reflect a growing recognition that these needs remain central to well-being and quality of life even in the presence of significant neurocognitive decline (Tragantzopoulou & Giannouli, 2025). More broadly, among older adults without significant cognitive impairment, psychological flexibility processes may represent a meaningful pathway for sustaining basic need satisfaction across the challenges associated with aging. Future research might explore how ACT and SDT constructs can be integrated to support well-being in older populations.

Beyond developmental considerations, the broader socio-environmental context also shapes the conditions under which basic psychological needs can be pursued and satisfied. The COVID-19 pandemic offers a particularly instructive example, as lockdown measures severely constrained social connection, autonomous functioning, and meaningful routines, likely frustrating multiple fundamental SDT needs simultaneously. For example, Filippou and Giannouli (2023) documented how psychotherapists navigated profound personal and professional disruptions during the pandemic, highlighting the role of adaptive capacity in maintaining well-being under crisis conditions. From the perspective of the present framework, promoting psychological flexibility may represent a meaningful pathway to need satisfaction in contexts of collective crisis, with implications for psychological preparedness in future emergencies.

Taken together, these considerations suggest that the integrative framework proposed here may carry meaningful implications across diverse populations and contexts, extending beyond the theoretical domain to inform applied and clinical research.

Nevertheless, the present contribution is conceptual rather than empirical. Consequently, the proposed links between flexibility processes and need satisfaction remain theoretically grounded but not directly tested within the framework advanced here.

Future research would benefit from more fine-grained investigations examining how specific ACT processes relate to individual SDT needs using longitudinal and mediation designs. Such work could clarify whether psychological flexibility functions as a regulatory mechanism that facilitates need satisfaction, and under which contextual conditions this occurs. Further theoretical refinement may also help determine whether ACT yearnings can be more precisely defined and operationalized in ways that permit direct empirical comparison with established motivational constructs.

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Declarations

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