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Through the extended evolutionary meta-model, and what ACT found there: ACT as a process-based therapy

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Abstract

This article is part of a special issue in the *Journal of Contextual Behavioral Science* devoted to process-based therapy (PBT) or a process-based approach to therapy and the role it plays in harmonizing existing evidence-based treatments. In the present discussion, we focus on acceptance and commitment therapy (ACT) and how it fits into the PBT framework. We describe how viewing ACT through a PBT framework and its organizing rubric—the extended evolutionary meta-model (EEMM)—provides fertile ground to expand the ACT and psychological flexibility models, transforming ACT into a more inclusive and flexible version of itself and giving clinicians wider berth with respect to delivering ACT. The PBT approach allows ACT to incorporate therapeutic elements that are not traditionally part of the framework, including include cognitive reappraisal, interpersonal therapy dynamics, physiological downregulation, and the principle of nonattachment. Importantly, ACT maintains its foundational principles throughout this integration. We provide a case example of how to use PBT methods to conceptualize an ACT case, to illustrate PBT-infused ACT in practice. Finally, we outline possible future directions for ACT as it continues to evolve inside of PBT.

Keywords

Acceptance and commitment therapy; Evolution science; Extended evolutionary meta-model; Functional analysis; Network; Process-based therapy

It may seem surprising to some that Acceptance and Commitment Therapy or Training (ACT in either case; Hayes et al., 2011) is expanding and extending its vision precisely at the moment when it is being embraced worldwide as an evidence-based approach. After decades of struggle and criticism of ACT (Hayes et al., 2023), ACT is now recognized

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by the U. S. Department of Veterans Affairs, the U. S. Department of Defense, and the World Health Organization (see https://contextualscience.org/state_of_the_act_evidence for links to these reviews) among other agencies and scientific organizations. There are nearly 450 meta-analyses or systematic, scoping, or narrative reviews of ACT (see bit.ly/ACTmetas), including several meta-analyses of meta-analyses. Apparently, after 40 years of development, ACT has “arrived.”

Yet, up to this point, we might still think of ACT as an adolescent: although it has grown in incredible ways since its inception, it has the potential to mature, to become even more adept at achieving its stated purpose of alleviating suffering and promoting valued living, and to integrate new perspectives into its worldview. Indeed, as the present issue shows, ACT and contextual behavioral science have many miles to go before they sleep. Contained within the arc of the ACT developmental program is a focus on processes of changes and the development of methodological tools needed to support that focus. These efforts have unexpectedly led to a new vision for evidence-based therapy itself (Hayes et al., 2022). The term for that new vision is “process-based therapy” (PBT) or simply a process-based approach. Understanding how and why ACT has led to this change requires a return to foundational issues.

ACT is a cognitive-behavioral therapy built on two pillars, the scientific philosophy of functional contextualism and psychological theories of behavior analysis and relational frame theory (RFT; Hayes et al., 2006), all situated within the broader context of evolutionary science (Wilson & Hayes, 2018). This article primarily focuses on how these pillars have naturally led to a process-based re-envisioning of ACT and shows how this re-envisioning entails broadening the scope of ACT assessment, treatment protocols, and case conceptualization. Before exploring why these pillars have sparked the ongoing transformation in our field, we will examine each one in detail.

1. Functional contextualism

The first pillar of ACT is its philosophical foundation. Functional contextualism is a modification of B. F. Skinner’s radical behaviorism (Skinner, 1974). Skinner sought to understand psychological actions by analyzing the “act-in-context”—that is, by taking into account the history and the circumstances in which these events occurred (their “context”) and the functions these actions served within that context. His metric for understanding was the ability to predict and control these events—indeed, he claimed that “prediction and control” was the ultimate purpose of *all* science. Although he spoke in terms of “behavior,” his approach to behavior included all the various forms of psychological actions and reactions of whole organisms, including thoughts, feelings, bodily sensations, perception, self-awareness, and so on.

Functional contextualism modifies radical behaviorism in several small but important ways. First, it views itself as a modern form of scientific pragmatism and adopts Stephen C. Pepper’s (1942) term for that philosophical tradition—“contextualism” (Hayes et al., 1988). It agrees with Skinner’s view that scientific knowledge is “a corpus of rules for effective action, and there is a special sense in which it could be ‘true’ if it yields the most effective

action possible ... [A] proposition is 'true' to the extent that with its help the listener responds effectively to the situation it describes" (Skinner, 1974, p. 235). In other words, it adopts the view that "successful working" is the truth criterion for both radical behaviorism and functional contextualism.

Second, it adopts the view that "ultimate analytic goals are foundational in contextualism" (Hayes, 1993, p. 17) and that "only explicit, stated, specific, *a priori* goals can make successful working a trustworthy guide" (p. 16). For others to evaluate the accomplishment of "successful working," the analyst needs to state their goals out loud for all to hear. If a pragmatist fails to do so, others are unfairly deprived of a right " ...to vote with my feet. If your goal is not mine, your useful analyses are likely to be useless for me" (Hayes, 1993, p. 18). Thus, there is a wide variety of possible forms of scientific contextualism defined by their declared goals (Hayes et al., 1993; other examples might include hermeneutics, dramaturgy, narrative psychology, or social constructionism), but they are fully commensurable only if analytic goals are shared. Further, "without an explicit goal all cognitive claims by contextualists are dogmatic" (p. 17) and both Skinner and William James are viewed as dogmatists for that reason (Hayes, 1993). Skinner claimed that the purpose of science is prediction and control but that is offensive to scientists with other goals in mind and furthermore there is no cognitive basis for that claim. He should have stated that *his* goal was prediction and control. Functional contextualism also makes a minor terminological change by replacing the word "control" with the word "influence" because the word "control" can mean the elimination of variability in behavior analysis, which is not what is being discussed here.

Third, it is argued that "from a functional and contextual perspective, scientific analysis is a social enterprise that seeks the development of increasingly organized statements of relations among events that allow analytic goals to be accomplished with precision, scope, and depth, based on verifiable experience" adding that "precision means that only a limited number of analytic concepts apply to a given case; scope means a given analytic concept applies to a range of cases; and depth means analytic concepts cohere across well-established scientific domains" (Hayes et al., 2012, p. 2). Statements of relations among events that have these properties have another name in psychology: principles. Thus, stated even more simply, functional contextualism seeks a kind of science that can be held to account to a social community for meeting its goals of predicting and changing psychological events using behavioral principles.

2. Relational frame theory (RFT)

The second pillar of ACT is its theoretical foundation: behavioral principles as expanded by RFT and as integrated by modern multilevel, multidimensional evolutionary science. Behavioral principles were originally developed as high-precision, high-scope concepts based on the intensive analysis of the psychological actions of individual organisms assessed repeatedly over time (Sidman, 1960). But behavioral principles are never meant to be stagnant. Science moves on and psychology is only one aspect of a larger set of domains in the life sciences.

RFT is a behavior analytic theory of language and cognition that explains how verbal animals—humans—are able to respond arbitrarily to stimuli (Hayes et al., 2001). For instance, the sound of the word “fire” can produce the behavior of running out the door among English-speaking people but would not have the same effect in people who do not understand what “fire” means. In contrast, almost every animal will run when faced with real fire, regardless of linguistic abilities. RFT describes how arbitrary verbal stimuli can become dominant and unhelpful, resulting in inflexible responding to changes in the environment. Through focusing on context, RFT provides guidance for overcoming such verbal dominance and promoting helpful forms of verbal control (e.g., value-based actions).

RFT itself does not make sense unless it is situated within the large functional contextual story of life as characterized by an evolutionary approach (Atkins et al., 2019, p. 258; Wilson & Hayes, 2018). Relational framing is involved in cooperative social groups (Hayes & Sanford, 2014) and the social needs and yearning that emerged based on that evolutionary history (Hayes, 2019). For that reason, behavioral principles themselves are actually biopsychosocial principles.

Thus, the ACT journey has at its foundations a philosophy of science and a set of theoretical concepts that have led inexorably to the idiographic investigation of biopsychosocial processes as the basis for applied work, and their integration into the psychological flexibility model is merely a theoretical extension of the purpose of developing increasingly organized statements of relations among events. ACT is fundamentally rooted in the behavior analytic approach, but it incorporates modern empirical advances. Specifically, it adopts relational frame theory as a contemporary language model, which gives private experiences a far more important role to play, and which in turn helps broaden the focus across physiological, psychological, and social dimensions. We argue that the core of this approach fits comfortably inside what is now being called PBT or a process-based approach.

3. The psychological flexibility model

ACT is often visually represented by a hexagon, the so-called “hexaflex,” which illustrates the six components of its primary hypothesized process of change: psychological flexibility. Psychological flexibility can be broadly defined as the ability to be willing to experience internal stimuli (e.g., thoughts, sensations) in the here-and-now in the service of pursuing actions aligned with personally chosen values (Hayes et al., 2006). It typically takes the form of varied responding to the same stimuli depending on contextual demands and personal goals. For example, being able to approach anxiety when doing so is helpful is part of being flexible, whereas avoiding anxiety at all costs reflects inflexibility, which has been associated with worse well-being (Ong et al., 2024).

Because ACT is functionally defined, technically *any* intervention that increases psychological flexibility can be considered ACT (Hayes et al., 2011). As originally described, psychological flexibility is comprised of six subprocesses: *acceptance* (openness to emotions, sensations, images, memories, and other internal experiences or “private events”), *defusion* (undermining the automatic dominance of symbolic events in the regulation of behavior), *present-moment awareness* (attending in a way that is flexible,

fluid, and voluntary), *self-as-context* (flexible perspective-taking that afford a witnessing or noticing sense of self), *values* (freely chosen meaningful qualities of being and doing), and *committed action* (creation of behavioral habits and sequences in line with values). Functional definitions of ACT have historically been restricted to these six subprocesses, even though these labels are meant merely to orient analysts to sets of functional analyses (the contextual behavioral science definition of a “middle-level term”; see Hayes et al., 2021) and thus can grow to encompass a wider range of specific functions that are altered by a much wider array of techniques than “classical ACT” methods. For example, in the affective dimension, psychological flexibility includes “an attitude of genuine curiosity and self-compassion” (Hayes et al., 2011, p. 66), not just “acceptance” as classically viewed. These analytic nuances can easily get lost in a six-item checklist, like the hexaflex. However, the PBT framework—designed to be functional and pragmatically inclusive—can be used to subsume techniques not traditionally conceptualized as ACT-consistent in the ACT model, while allowing ACT to stay true to its functional contextualist core. We describe examples of how this can be done in the following section.

A closely related construct to psychological flexibility is psychological inflexibility, which, depending on how it is measured, can be distinct from—rather than the inverse of—psychological flexibility (Ciarrochi et al., 2014; Rolffs et al., 2018). In ACT, psychological inflexibility is seen as the source of suffering, which is defined by attempts to control the uncontrollable (e.g., internal experiences) at the cost of living a meaningful life. Like psychological flexibility, psychological inflexibility has its own set of corresponding subprocesses: *experiential avoidance* (attempts to escape or avoid internal experiences), *fusion* (attachment to and/or excessive control by symbolic stimuli, typically thoughts), *dominance of past and future attending* (attentional rigidity with respect to past events and/or future worries), *self-as-content* (a storied self-narrative or self-conceptualization), *fused, avoidant, or unclear values* (inability to identify personally meaningful values or identifying them based on other psychologically-inflexible processes), and *values-inconsistent action* (behaviors driven by motives that conflict with chosen values). Generally, the objective of ACT is to alleviate suffering and foster valued living by decreasing psychological inflexibility and increasing psychological flexibility. In other words, by introducing variation in responding anchored by values.

The effectiveness of ACT is backed by over a thousand randomized controlled trials (bit.ly/ACTRCTs) and perhaps thousands of other kinds of studies covering a wide range of clinical and non-clinical presentations in mental health, behavioral health, and social wellness and performance, including anxiety, depression, eating disorders, and chronic pain; adjustment to cancer, other physical diseases, or health demands of all kinds; and such issues as reducing prejudice or fostering healthy relationships (e.g., Bai et al., 2020; Bluett et al., 2014; Gloster et al., 2020; Manlick et al., 2013; Veehof et al., 2016). Generally, it has been found to be at least as effective as well-established but more narrowly cast evidence-based treatments of other kinds (e.g., Arch et al., 2012; Twohig et al., 2018), making it a reliable treatment option for a wide array of presenting concerns. There is also evidence that ACT works through increasing psychological flexibility, its hypothesized process of change, corroborating the theory underlying ACT (Fledderus et al., 2013; Pots et al., 2016; Wicksell et al., 2010). In comparison to such evidence-based treatments as traditional cognitive

behavioral therapy (CBT), moderators regularly emerge in which for some clients ACT is better and for some clients traditional CBT is better (e.g., Wolitzky-Taylor et al., 2012), suggesting that both should be part of the armamentarium of evidence-based therapies.

Meanwhile, evidence for psychological (in)flexibility as a process of change is unusually strong, with arguably more replicated studies supporting its role as a mediator of treatment outcomes than any other sets of processes (Hayes et al., 2022). Some researchers have levied criticism of the empirical basis of ACT mediational literature, noting that psychological flexibility and inflexibility have been loosely defined and certain subprocesses have been understudied relative to others (Arch et al., 2022). Basic RFT accounts are evolving and as they do middle-level terms continuously change their specific meaning (e.g., Assaz et al., 2022; Hayes et al., 2023). These seem fair but they are also expected features of an inductive research tradition that now spans across four decades or even longer if the behavior analytic roots of ACT and CBS are emphasized.

Perhaps more foundationally, the extant literature on processes of change in ACT, and in virtually all forms of evidence-based psychological intervention, has been largely rooted in nomothetic or group-level analyses, which cannot be assumed to generalize to individual functioning due to the failure of such analyses to meet their analytic assumptions (Hayes et al., 2019; Molenaar, 2004). And here we find that the continuous development of the foundations of ACT are leading naturally to an expansion of ACT and its psychological flexibility/inflexibility model beyond the bounds of classical ACT into a more inclusive ACT, as a form of PBT. To that topic we now turn.

3.1. ACT as a form of PBT

When implemented functionally, ACT has always been a process-based approach to assessment and intervention. Case conceptualization is organized around the 12 subprocesses of psychological flexibility and psychological inflexibility. Accordingly, evaluation of treatment response is driven by these process targets. For example, increases in willingness to experience painful thoughts and feelings in the service of values might be seen as is a marker of improvement, rather than symptom change per se. This means that ACT has always been about the function of therapeutic techniques—do they increase some aspect of psychological flexibility—rather than the techniques themselves. Therefore, theoretically, ACT is agnostic as to whether the therapist uses the empty chair exercise or self-oriented perspective taking, so long as the technique improves psychological flexibility or decreases psychological inflexibility.

The capacious extended-evolutionary meta-model (EEMM; Fig. 1)—the meta-theoretical framework used in PBT, which consists of dimensions (i.e., affect, cognition, attention, self, motivation, overt behavior) and levels (i.e., biophysiological, sociocultural; refer to the introductory article of this special issue for a detailed description)—makes this stance more explicit, by encouraging the ACT therapist to think about their techniques in terms of dimensions and levels of psychological functioning and evolution science principles (Hayes et al., 2020). The targets of psychological flexibility and psychological inflexibility subprocesses map directly on to the EEMM dimensions: acceptance and experiential avoidance are affective, defusion and fusion largely refer to cognitions, present-moment

awareness and rigid involuntary attending are attentional, self-*as*-context and self-*as*-content entail the self, values are motivational, and committed action is overtly behavioral. As such, ACT subprocesses are covered by every dimension of the psychological level of analysis in the EEMM (see Table 1). Moreover, by naming the evolution science principles of variation, selection, retention, and contextual sensitivity, the EEMM underscores that the crux of the psychological flexibility model is to develop healthy forms of variation, that are selected and retained based on their contextual fit with progress toward a chosen goal, consistent with the functional contextualist philosophy underlying ACT. Indeed, flexibility is practically synonymous with healthy variation, selection is done in accordance with values, and retention is codified in habits based on committed action. Furthermore, ACT and PBT share the aim of enhancing well-being, which differentiates them from treatments that solely focus on symptom reduction and facilitates integration of these approaches.

What has been missing from the hexaflex, however, is the absence of formal attention to dimensions at the sociocultural and biophysiological levels of analysis, as well as a needlessly narrow focus on the psychological dimensions themselves. The EEMM within PBT enhances the psychological flexibility model by allowing for significant expansions in various key areas. As a result, we can speak more broadly of flexibility in the domains of cognition, affect, attention, sense of self, motivation, and overt behavior, linked to chosen purpose and underlying human needs, and retained and fitted to contextual demands—rather than the six preordained subprocesses in the hexaflex. In addition, the EEMM inherently emphasizes the social extension of flexibility processes and their relevance to cultural context—areas relatively less emphasized but not incompatible with ACT—and the need for coherence between psychosocial processes and the biophysiological level of analysis.

3.2. Expanding the psychological flexibility model using PBT

Given the functional nature of ACT, as more is learned about how basic behavioral and evolutionary principles can be applied to human complexity, altering the psychological flexibility model, ACT itself expands. In other words, the expansion of ACT as a process-based approach should be isomorphic with the expansion of the psychological flexibility model. In fact, recent attempts to embed psychological flexibility in the EEMM framework (e.g., Hayes et al., 2022) are rapidly expanding ACT and its potential strength as an intervention. In our view, this is a good example of how a PBT approach is supposed to function.

In this section, we will provide examples that show how it is easy to expand psychological flexibility in a coherent way, and thereby broaden the scope of ACT itself. Our touchstone in this section is a recent systematic review of every successful replicated mediational study conducted on psychosocial interventions for mental health problems (Hayes et al., 2022). In that analysis, over half (52%) of studies that identified processes of change did so using traditional measures of psychological flexibility (23% of findings); mindfulness, which is a component of psychological flexibility (20% of findings); anxiety sensitivity (8%); or behavioral activation (2%). The latter two processes are also part of psychological flexibility, under the labels of experiential avoidance and committed action.

Sixteen percent of the successful studies focused on cognitive mediators such as negative, unrealistic, or dysfunctional thoughts (9%); attributional style, interpretation bias, implicit cognition, or cognitive reappraisal (4%); or rumination and worry (3%). Mediation by social processes accounted for 9%, including such areas as parenting or family function (4%), social support or loneliness (2%), the therapeutic alliance (2%), or interpersonal functioning (2%; note the total is lower due to rounding). Mediation by physiological processes or health related behavior accounted for 7%. Self-efficacy accounted for 5% of all successful mediational findings; self-regulation and coping accounted for 4%; self-compassion for 3%; and finally decentering, emotional regulation, and non-attachment accounted for 2%. If these areas of biopsychosocial processes of change can be encompassed by the EEMM dimensions and an expanded psychological flexibility model can effectively cover the EEMM, it means that virtually everything we now know about how change happens (at least, based on replicated mediational analyses) is within the reach of an expanded psychological flexibility model.

This certainly does not mean that current ACT methods constitute the best approach to all known processes of change. Instead, it suggests that ACT therapists can incorporate nearly any psychosocial method. However, they must align these methods with their foundational philosophy and theory (e.g., working toward a pre-stated goal, based on behavioral principles, including those derived from relational frame theory, and evolutionary science principles), while also empirically validating their effectiveness in achieving the desired changes. Anchoring flexible deployment of various intervention techniques to an underlying scientific philosophy and theory and to thoroughly vetted process measures is what prevents ACT therapists from becoming unmoored, haphazardly reaching for random techniques. Maintaining the integrity and coherence of ACT in the face of expansive change is what good scientific philosophy and theory is meant to do: increase the precision of analyses, while expanding the scope and depth of analyses.

As an analogy, although bread recipes are extremely precise, they lack scope (coherence across topics) and depth (coherence across levels of analysis), which is why even the most meticulous baker is not automatically a scientist. Fostering functional and flexible measurement and analysis is what a focus on principles and processes is designed to do. If ACT was like a recipe book, it might instruct you to use certain procedures to enhance defusion, acceptance, present moment awareness, self-*as*-context, values, and committed action, which will together produce psychological flexibility. However, because ACT is a process-based approach, and not a recipe book or rigid protocol, it allows the practitioner to expand beyond the typical procedures found in an ACT book. That is, it is more like a book teaching you how to bake than one containing ready-to-go recipes. An ACT clinician using a process-based approach should then be equipped to precisely target clinically relevant processes, using theoretically coherent methods, grounded in PBT-informed expansions of the psychological flexibility model. Below we present four such expansions.

3.3. Four examples of needed expansions in the psychological flexibility model

3.3.1. Expanding cognitive flexibility: It's not just defusion—To deal with unhelpful cognitive activity, ACT typically advocates methods that diminish the power

of unhelpful thinking over behavior and orient the client toward workability, which can be grouped under the middle-level term “defusion.” Defusion exercises may teach clients to mindfully distance themselves from thought content, allowing thoughts to be perceived as fleeting sounds or sensations rather than indisputable truths, reducing their automatic influence over behavior. Another classic defusion exercise is the passengers on the bus metaphor. In the metaphor, clients are asked to imagine themselves driving a bus with rowdy passengers who represent their thoughts. Clients are then invited to consider how to respond to their passengers to keep their bus on the path they want, with most clients intuiting that the most effective way to keep their bus on track is to let the passengers grumble without giving into their demands (defusion) while staying focused on getting to their destination (workability). Thus, defusion exercises teach individuals how to engage in valued behavior in the face of difficult thoughts. In other words, defusion techniques try to change how the person responds to their thoughts, rather than the thoughts themselves.

In contrast, a cognitive reappraisal intervention commonly used in traditional CBT generally seeks to directly modify unhelpful content. For example, a cognitive reappraisal exercise may start by identifying the cognitive distortion or thinking trap (e.g., “Fred doesn’t like me” = mind reading), gathering evidence for and against the cognitive distortion (e.g., “Fred complimented my shirt the other day,” “Fred did not reply my text from last week”), and then developing a more balanced alternative thought based on the available evidence (e.g., “I can’t say for sure how Fred feels about me”). This traditional CBT approach of cognitive reappraisal—wherein the content of the thought itself is the target of the intervention—is deemphasized in ACT primarily for two reasons (Ciarrochi & Bailey, 2008). First, there is a concern that reinforcing reappraisal may signal to clients that the content of thoughts is important. Such messaging could make clients more dominated by difficult thinking patterns and more entangled in a futile effort to use words to find the “truth,” perfectly predict the future, obsess about right or wrong, or to fix perceived imperfections. These attentional effects of increased striving to alter or argue with thoughts are viewed as risky or unhelpful. A second concern with traditional reappraisal interventions is that they may (unintentionally) promote an eliminative or subtractive control agenda, such as when clients are taught—implicitly or explicitly—that thoughts cause behavior and reappraisal will eliminate irrational thoughts. Such teaching implies that one must first control or eliminate thoughts to change behavior, increasing the focus on thought content.

In a PBT framework, however, it is possible to engage in cognitive reappraisal without overemphasizing unhelpful verbal and attentional processes or promoting an eliminative control agenda. In this approach, reappraisal can become a form of cognitive flexibility: being able to generate a variety of available thoughts and select those that are worthy of attention based on their likelihood of success. Once there, cognitive reappraisal can readily be considered ACT-consistent. Cognitive flexibility has always been a feature of ACT protocols, even in its early stages, such as the life story re-writing exercise in the original ACT book (Hayes et al., 1999). While RFT serves as a theory of all cognitive change, the term “defusion” alone oversimplifies these complexities and obfuscates the functional nuance of cognitive flexibility.

The more expansive approach we are describing has been especially evident in more recent ACT variants, such as DNA-V, a treatment approach that combines ACT with concepts from positive psychology, while still largely mirroring the ACT subprocesses. For example, instead of teaching defusion as a blanket skill for holding thoughts more lightly, the DNA-V model personifies thinking as an internal advisor, whose primary purpose is problem-solving and helping individuals stay safe (Ciarrochi & Hayes, 2016). With the internal advisor, clients can choose to listen to it or respectfully decline to follow the advice (defuse from it). However, clients can also train it to be more effective. For instance, clients could use cognitive restructuring techniques to develop a more accurate and functional understanding of reality by more consciously weighing the available evidence and adjusting thinking. In the DNA-V model, the advisor can be listened to and held lightly at the same time. It is unnecessary to convince the advisor to “say the right things.” Such an approach allows the ACT practitioner to use defusion, in addition to cognitive restructuring and cognitive training, to improve thinking patterns in the service of helping clients act more consistently with their values.

The key to combining defusion with cognitive change interventions while remaining consistent with the ACT model is to hold the content interventions lightly, focusing on their effect with respect to contextually bound variation, selection, and retention. The clinician does not have to fix the client’s thinking or beliefs. Rather the client can be encouraged to explore different ways of thinking (variation), see if listening to some content promotes value in their life (selection), and continue listening to that content (retention) when it is helpful to do so (context). In summary, the EEMM version of the expanded psychological flexibility model broadens its conceptualization of cognitive flexibility, beyond the narrower concept of cognitive defusion alone.

3.3.2. Expanding inter-individual processes: It’s not just the individual—

Although ACT interventions often have a clear social focus, such as interventions focused on supporting social values like connection and intimacy, most of these interventions ultimately stay at the individual level, because they focus on the values, acceptance, present moment awareness of the individual in a social group (i.e., *intra*-individual), not on the group-level processes themselves (i.e., *inter*-individual). There are ACT interventions that focus specifically on group-level processes (Atkins et al., 2019, p. 258), but much of what is promoted by standard ACT books for work with individuals in session is heavily focused on the individual.

The EEMM encourages the ACT practitioner to expand beyond individual-level psychological interventions, to include intra-individual biophysiological and inter-individual sociocultural processes (e.g., couples, work groups, family, culture). The implicit deemphasis on social/interpersonal processes is arguably one of the greatest weaknesses of traditional ACT protocols. This is not too difficult to begin to repair, in part because each of the psychological flexibility processes can readily be expanded socially: acceptance to compassion; defusion to the exploration of mutual understanding; attention to joint attention; self-*as*-context to healthy attachment and interconnection; values to shared values; commitments to cooperation and shared commitments. Doing so makes it easier to understand how to combine ACT with more interpersonally focused therapies like

psychodynamic psychotherapy and functional analytic psychotherapy (FAP). This has long been explored successfully in research (e.g., Gifford et al., 2004), but the psychological flexibility model itself applies more readily when it is expanded by the EEMM.

There are many areas to explore in such an expansion. For example, modern psychodynamic therapies highlight the importance of understanding people's relationships through the clinician's experience of transference and the identification of common relationship patterns (Cabaniss et al., 2016; Horvath & Luborsky, 1993; Luborsky & Crits-Christoph, 1998; Wilczek et al., 2000). Transference occurs when a client unconsciously projects feelings, emotions, or expectations from a significant person in their past or present life onto the therapist (Høglend et al., 2008), such as when a client treats the therapist as if they were a parent, friend, or romantic partner. A therapist who is attuned to transference can use this information to provide insight to the client and help them develop healthier relational patterns.

From an ACT perspective, the therapist could use transference as social information in the therapy room and help the client conduct a functional assessment of their interpersonal patterns in session and their everyday life. The therapist can also use transference to identify, evoke, and reinforce clinically relevant behaviors during the therapy session, as is done in FAP (Tsai et al., 2015), but with the intention of helping the client to act more in line their values. Finally, the clinician may have an opportunity to directly intervene at the social level, as they use their therapeutic relationship to model and shape adaptive social responses in session, which would exemplify the experiential nature of ACT but on the interpersonal rather than individual level. Other modern psychodynamic ideas, such as mentalization (Fonagy et al., 2018) would yield to a similar approach.

3.3.3. Expanding emotional flexibility: It's not just acceptance—ACT

practitioners are generally cautious of any intervention that might promote emotional control because such control is often eliminative and there is not good evidence for an eliminative approach. Thus, ACT emphasizes allowing and accepting feelings, rather than modifying or controlling them. However, some clients may benefit from strategies designed to temporarily downregulate or upregulate emotions in addition to acceptance strategies. Emotional deepening strategies (e.g., Borkovec & Sharpless, 2004) are readily conceptualized as new responses that *expand* one's affective repertoire, which is very consistent with increasing affective flexibility.

Integration of acceptance-based and physiological downregulation approaches is also feasible, provided that a cycle of avoidance and self-threat is avoided. To rephrase the serenity prayer (Miller & Plants, 2014), clients can learn to accept the feelings they cannot change, change the ones they can—when it is useful—and develop the wisdom to know the difference. For instance, suppose one's goal is to overcome fear of heights or confinement and to board a plane to see a loved one. The ultimate goal may be accepting fear, but evidence-based “down-regulation” techniques like relaxation and slow breathing can be processes that promote emotional acceptance and flexibility in the moment. One can use skills to relax, but not cling to the goal of “absolutely having to relax” to board the plane. If relaxation practice does not work, one can still choose to willingly accept distress and

board the plane. Here too there is nothing new to ACT, but it is a useful expansion of the psychological flexibility model done readily with the EEMM structure.

3.3.4. Expanding psychological inflexibility: It's not just avoidance—A prime example of the need to move from the traditional “hexaflex” model to a more EEMM-centered approach is the issue of attachment. This refers to the clinging to cravings, desires, ego, material possessions, relationships, or specific outcomes. This idea is central to Buddhist thinking (Hanh, 2008), but it is readily integrated into an ACT approach. Some argue that avoidance and attachment are essentially two sides of the same coin, implying that addressing experiential avoidance inherently involves addressing attachment. For instance, one might argue that attachment to feeling “good” is really avoidance of losing those good feelings, or ostensible attachment to material possessions or relationships is really the fear of losing them. Although these arguments appear plausible, empirical evidence does not corroborate them. Nonattachment measurements are distinct from experiential avoidance and psychological flexibility measures, which typically focus on managing negative experiences (Sahdra et al., 2016). Further, there is now strong evidence that positive processes cannot be reduced to negative processes, or vice versa (Ciarrochi et al., 2022; Ferrari et al., 2022; Vansteenkiste & Ryan, 2013). In the same hour, and sometimes in the same minute, people can be both kind and critical of themselves (Ferrari et al., 2022), engage in positive and negative social behavior, engage in behaviors that are healthy and unhealthy (Ciarrochi et al., 2022), and so on. Experiencing attachment and clinging to something positive is unlikely reducible to the idea of avoiding something negative.

Nonattachment has been shown to predict the development of positive mental health outcomes over and above current mental health (Ciarrochi et al., 2020). This suggests that nonattachment can be measured as a process and tracked in session. Attachment may be seen in clients who cling to the idea that they should always have pleasant experiences that last, have family and friends who are present and supportive, or have a life with no problems and regrets. The movement to nonattachment would be seen when clients stop mentally clinging to or “demanding” these experiences or circumstances.

There is a practical benefit of exploring clinging and not simply avoidance. Some clients may be reluctant to characterize their behavior as avoidance of negative affect. Such avoidance may be perceived as weakness or cowardice, especially depending on the cultural norms and beliefs to which the client subscribes. By discussing behavior in terms of nonattachment or emotional clinging, the therapist can avoid these implications. Instead of saying that someone is doing something because they are afraid to feel (avoidance), one might say that they are doing something because they deeply desire an outcome that may be unattainable (attachment). Alternatively, when instructing the client on healthy emotional variations, the therapist could emphasize that for emotions to effectively signal, they must be “allowed” to be transient. For some clients, this may be a more useful way of framing the issue.

In fact, nonattachment processes and interventions may be integrated into all aspects of the psychological flexibility model because we are simply speaking of a different form of rigidity or lack of healthy variation (Sahdra et al., 2010, 2016, 2017). Unhealthy clinging is

not just present in the affective domain (although that may be the most prominent), it is also seen in clients who cling to the idea that they should always be treated fairly, be better than others, be the center of attention, or have a life that is constantly ideal. The move toward nonattachment is evident when clients not only reduce their emotional attachments but cease clinging to unrealistic expectations, often rooted in a demand for the world to conform to their specific vision.

The wide scope implies that contemplating impermanence, or “anicca,” could be beneficial. This practice involves reflecting on the fleeting nature of various phenomena, including thoughts, feelings, relationships, self, body, and material possessions. This is hardly reserved to Buddhist thinking alone – it can easily penetrate across many cultures. For example, “this too shall pass” is a scriptural insight that is central into all three major Abrahamic religions. One might thus use such nonattachment interventions to help people recognize that all aspects of life are impermanent and constantly changing, encouraging them to let go of unhelpful attempts to cling to outcomes, people, or things. After all, what is the point of clinging to something that will inevitably slip through your fingers?

The process of nonattachment could be promoted via a variety of procedures (Brahm, 2011; Kabat-Zinn, 2013; Ricard, 2015). We list several options here to demonstrate the adaptability that a process-based approach adds to ACT. Mindfulness meditations can help people observe experiences arising and passing away. Reflection on personal experiences can help people see all the changes they have undergone and how relationships have evolved and ended. Nature observation might help people focus on changing seasons and the growth and decay of plants, as well as the natural process of birth, growth, and death. Breath contemplation can be used to help people notice how each breath is different, the sensations of cool in-breaths and warm out-breaths, the rise and fall of the chest and abdomen, and how each breath arises, exists for a moment, and passes away, becoming aware of the ever-changing nature of the body and life. Meditation on death can help people reflect on the inevitability of death and the uncertainty about when death will occur, helping them appreciate the present moment and not become excessively attached to outcomes and things. Journaling can be used to help people reflect on impermanence, including changes that have been witnessed in their lives, relationships, and environments. People can be encouraged to reflect on how such experiences shape their understanding of impermanence and the implications for their lives. Finally, artistic expression can be used to capture and reinforce the essence of impermanence. One could use painting, for example, to express and understand impermanence in a personal and creative way. Leveraging the concept of nonattachment in ACT could introduce new ways of conceptualizing clients’ stuck patterns, uncovering a broad arsenal of techniques from which to draw intervention ideas, and create new avenues for fostering greater flexibility in the service of values. The anchoring in values and focus on function keeps the resulting treatment decidedly ACT, but weaving in PBT principles allows it to blossom and sprout new branches.

3.4. Using networks for case conceptualization and treatment planning

The previous section showed how a process-based approach can be used to expand beyond the typical procedures presented in ACT protocols. Now, we turn to another feature

of PBT: the use of network thinking in case conceptualization and treatment planning. Networks allow one to consider how processes nested in a context of other processes and environmental conditions interrelate. That is, networks simultaneously account for the multiple relationships affecting each aspect of the client's presentation, including external contextual variables. In a network, the variables are called *nodes* (usually depicted by rectangles) and the relationships between them are called *edges* (usually depicted by lines or arrows).

Networks undermine the default assumption that processes have simple, unidirectional relationships with interventions and outcomes, as depicted in the mediational model in Fig. 2. Rather, they depict the client's struggle more like a spiderweb (see Fig. 3), where changes in one part of the network may have cascading effects that influence other parts of the network not directly connected to the former. In addition, networks can map self-reinforcing patterns, such as bidirectional relationships between two variables (e.g., [fear] \longleftrightarrow [avoidance]) or loops involving multiple variables (e.g., [fear] \rightarrow [avoidance] \rightarrow [low self-esteem] \rightarrow [fear]), which standard mediational models do not do. In these ways, networks attempt to model the complexity of our clients' presentations in a visually interpretable format.

4. The case of “Nick”

To illustrate how ACT can be delivered using PBT principles and network case conceptualization, we present the case example of Nick. Nick is a 26-year-old cisgender man who identifies as straight and part of a minoritized racial/ethnic group (unspecified so that this example can be applied to different countries). He graduated from college last year with studies in civil engineering. He lives with his father. He expressed that his mother left them when he was young “because she did not like life with them.” He hardly sees his mother, who now has a new family. When he was 19 years old, he went abroad to Europe to study where he started using “all kinds” of drugs, which led him to fail his classes that semester. He returned home and managed to continue his studies in his home country. He continued to use drugs, mainly marijuana, “mushrooms,” and tobacco (cigarettes). Yet, he was able to complete college and graduate.

He presents for treatment following numerous visits to neurologists and psychiatrists. He stopped using drugs about 6 months ago and believes that since he stopped, his brain “burned” and caused him neurological problems which have “destroyed his life.” He spends his days at home “walking up and down restlessly.” In addition, Nick reported intermittent aches throughout his body, which are most prominent around bedtime. He also described having “weird thoughts” which prevent him from working, driving, concentrating on tasks, sleeping, and socializing. He stated that some of the “weird thoughts” started following a family event where he saw a lot of his relatives and their children “advancing in their lives.” He compared himself to them and realized that he has “destroyed his life.” Around the same time, his girlfriend broke up with him.

All the doctors he visited assured him that he has nothing physically wrong with him and that he is “just depressed.” He does not believe this and instead thinks that the drugs have

permanently destroyed his “hypothalamus, neurotransmitters and hormones.” His in-session behavior was erratic, shouting at the therapist and repeatedly stating, “nobody understands me.” He was unable to sit still on the chair and sighed audibly every time the therapist spoke.

5. Case conceptualization

Considering the EEMM dimensions and levels and how clinically relevant variables might be interacting with each other, we developed a network-based case conceptualization to illustrate the *direction* and *strength* of hypothesized relationships among assessed factors (see Fig. 3). In Nick’s network, arrowhead size corresponds to strength of the association and the opaque arrowheads indicate positive associations (negative associations can be represented using clear arrows, which are not included in Nick’s network). For example, focusing on the nodes, [thought: “drugs have destroyed my life”], [physical aches in body], and [rumination], the network suggests a stronger influence of [thought: “drugs have destroyed my life”] on [rumination] (bigger arrowhead) than on [physical aches in body] (smaller arrowhead). Similarly, the influence of [physical aches in body] on [rumination] is hypothesized to be stronger than that of [rumination] on [physical aches in body].

The utility of such a network is to clarify the complex interplay among nodes, revealing multiple contributors to the same node (e.g., three arrows feeding into [physical aches in body]), multiple effects of the same node (e.g., five arrows coming out of [physical aches in body]), and self-perpetuating loops (e.g., [inability to concentrate] → [thought: “drugs have destroyed my life”] → [rumination] → [inability to concentrate]). By having a clearer picture of these relationships, the therapist can identify which maladaptive process might be most helpful to target, in collaboration with the client. Because the network emphasizes the relationships among nodes rather than the nodes themselves, the target for treatment is not necessarily the most “severe” problem. Instead, it may be a link in a self-perpetuating loop or the node that influences many other parts of the network, such that changing the target process will change the network itself. This is the idea of perturbing or destabilizing Nick’s current network, the one keeping him stuck in an unhealthy state, so that he can begin to build a more adaptive network that enhances his well-being.

Although the network visualization is new to ACT, the assessment skills needed to derive the relationships in it are rooted in functional analysis, a basic component of ACT assessment. Indeed, we may think of a network as an amalgamation of multiple chains of antecedents, behaviors, and consequences. Furthermore, the nodes are organized along the dimensions shared by the psychological flexibility model and EEMM (i.e., affect, cognition, attention, self, motivation, overt behavior). Thus, creating a network should not be a major challenge for an ACT therapist already familiar with the hexaflex. In fact, some ACT therapists may already intuitively think of their clients’ problems as a network, recognizing the role of context and complex interactions among variables. Nonetheless, having a tangible visual representation of the network can be helpful for organizing and clarifying our own case formulation and sharing it with our clients.

Where the EEMM expands the psychological flexibility model with respect to assessment may be noted in the explicit inclusion of biophysiological and social levels, including behavioral observations by the therapist. For example, Nick's network tracks how his inappropriate behavior with his therapist may be related to his anger and loneliness as well as acknowledges the link between physiological (physical aches) and psychological functioning (stays at home all day). Of course, ACT does not preclude these levels of analysis and they are certainly relevant to a functional analytic approach to assessment. However, as noted earlier in this paper, traditional ACT protocols tend to emphasize intra-individual processes and deemphasize inter-individual processes, which may lead therapists to overly focus on individual skills at the expense of addressing interpersonal processes, such as social behavior in session. Similarly, the hexaflex does not explicitly account for the biophysiological level functioning, and again, ACT therapists may neglect to consider basic physical factors like sleep and diet. The EEMM corrects for this bias by encompassing biophysiological and social levels, thereby decreasing the likelihood that they will be overlooked in treatment planning.

5.1. Treatment planning

Following case conceptualization, the expanded psychological flexibility model can be used to create a more flexible treatment plan that extends beyond the six ACT processes in the hexaflex. Given the functional contextualist philosophy underlying ACT, treatment planning will still be guided by Nick's goals and values, such that the metric of treatment success is Nick's proximity to his version of a valued life, the same as if Nick did traditional ACT. Thus, Nick's values will be used to determine where to start to have the most beneficial effect and which technique(s) or treatment kernel(s) will be most useful.

Nonetheless, considering the EEMM and evolution science principles of PBT, the planned ACT intervention should still aim to help Nick develop new responding (variation), discover which strategies will be most adaptive for him given his goals (selection by values), learn how to persist in useful responding (retention by committed action), and exhibit such responding across various facets (dimensions) of interpersonal and intrapersonal functioning (levels)—all while working within Nick's historical and situational circumstances (context). Again, all of this is still consistent with ACT, but the use of evolutionary phases (variation, selection, retention) to conceptualize change and explicit consideration of other levels of analysis encourages the development of a more comprehensive treatment plan. Applying these principles to Nick and his behavior of [staying at home all day], we may include going outside (variation), identifying which outside activities are consistent with his values (selection), and making a plan to incorporate going outside into his weekly routine (retention) as potential treatment goals.

In terms of which node to target first, as is typical in ACT, the therapist and Nick may preliminarily identify barriers to treatment goals and work together to determine which maladaptation to work on first. Decisions may be based on: access (ability to realistically work on a target within the parameters of the treatment context), centrality (positioning within the network and proximity to desired outcomes), competence (skills of the therapist to deliver intervention strategies to effectively change the target), risk (range of likely

outcomes and possibility for iatrogenic effects), likelihood of change (possibility for desired range of outcomes) and strategic positioning (opportunity for additional desired outcomes to result from changes made), as described in *Learning PBT* (Hofmann et al., 2021). Having several factors on which to base clinical decision-making means that there is no one right answer. Each consideration will probably point to a different target and every target may be clinically justifiable. Thus, it is important during this stage to use all the information available to you—however incomplete—to guide decision making.

In Nick's case, we know that [thought: "drugs have destroyed my life"] is one of the most central nodes in his network based on the size of the outgoing arrowheads (i.e., it has one of the strongest effects on other parts of his network). We also know that this and related "weird thoughts" affect multiple aspects of his life, driving self–other comparisons, concentration difficulties, and rumination, and consumes significant mental energy, suggesting that they negatively impact his functioning and well-being. As such, we may hypothesize that changing his response to [thought: "drugs have destroyed my life"] will destabilize his maladaptive network and create an opening to develop more helpful responses. Therefore, we will select the thought, "drugs have destroyed my life," as the first treatment target.

The next step is to figure out which treatment kernel to use to precisely target our node of interest. While an ACT therapist might jump to a defusion kernel—the primary cognitive intervention in ACT—the PBT lens instead allows us to survey the different evidence-based cognitive treatment kernels available to us, in the service of supporting psychological flexibility and valued living. In the expanded psychological flexibility model, the ACT therapist could choose a cognitive reappraisal kernel to increase variation in responding to the thought, if they believed that it would help Nick act more consistently with his values. In addition, because of the key role of values as the metric of treatment effectiveness, an ACT therapist may also consider implementing kernels for values clarification and exploration of life goals early on to establish a direction for treatment. Whereas, a different therapy with different pre-analytic goals using a PBT approach may not immediately orient to values.

Furthermore, we need to consider how a kernel would or would not fit Nick and his unique needs—this is the idiographic aspect of PBT. In Fig. 4, we present two simplified networks to show different ways Nick could respond to the same intervention. Assume he is doing the exact same cognitive restructuring practice, completing a worksheet for at least one thought related to "drugs have destroyed my life" daily. In the first scenario, Nick tells himself that he needs to sort out his own problems before he can reach out to others. Thus, practicing balancing thoughts is seen as a prerequisite to increasing social interactions and the two work against each other. Cognitive reappraisal activates one positive pathway via more balanced thinking and one negative pathway via social isolation. In the second scenario, Nick sees cognitive reappraisal as a way to help him re-connect with his father and friends, by creating more flexible thinking patterns that promote valued choices. Here, cognitive reappraisal increases balanced thinking and reduces avoidance of social interactions, both of which enhance his well-being. The therapist must then determine which of these conceptualizations is more probable, as Nick would experience more benefit from a cognitive reappraisal kernel if he held the second stance rather than first.

5.2. Future directions

As we have foreshadowed throughout the paper, we see the integration of PBT principles and the EEMM framework as vital to the continued growth of ACT as an evidence-based intervention, and an open invitation to process-based approaches of all kinds to walk a similar path within their own development. In theory, the expanded psychological flexibility model can grow infinitely, incorporating various evidence-based kernels across the EEMM dimensions and levels that increase flexible responding. Any influx of new ideas may create initial confusion and resistance, and bring with it fears that a model with which many are familiar will morph into a free-for-all therapy, or drift away from its evidence-based roots. This fear is built into all forms of scientific progress, especially when it is rapid. The very history of ACT suggests the solution. Just as functional contextualism and an expanded set of behavioral principles has supported ACT development from the beginning, so too will clarity about philosophical assumptions and one's theoretical base provide ACT therapists and researchers of the present day the foundation needed to move boldly towards a process-based future that will be determined more by data and functional impact than by preconceptions.

Rather than viewing PBT and ACT as a mixture of distinct and separate components, like oil and water, we think of this integration as a compound, wherein the core elements remain the same (water still contains hydrogen and oxygen atoms) but the form and properties that emerge from the subsequent product may be radically different from its components. For example, ACT therapists working in the expanded psychological flexibility model will have wide berth to be creative in how they mix and match techniques from evidence-based treatments to foster flexibility. PBT-informed ACT also differs in its comprehensive examination of various levels of functioning, including biology, physiology, social relationships, and culture, rather than focusing solely on intra-individual skills like willingness and defusion. As a result, what ACT looks like may change, with some therapists choosing to leverage phenomena like transference to shape more adaptive interpersonal behavior in the service of values, or even leverage collective values in the client's culture to motivate healthy change.

For those of us who have seen—metaphorically, of course—hydrogen and oxygen atoms, it may be difficult to imagine that water was created from those two elements. For this reason, transitioning to this new compound perspective may paradoxically be harder for more experienced therapists. However, like the younger generations of children who are hardly impressed by WiFi and touchscreen tablets, clinicians-in-training may benefit from being able to learn about water—ACT through a PBT lens—from the start, saving them the intellectual labor of readjusting a perspective they have held for years, even decades. Thus, we believe it is crucial to incorporate PBT principles early on in training programs, just as psychopathology and assessment are regularly taught in the first—if not second—year of clinical graduate programs, such that new therapists will have an expansive framework into which they can integrate any treatment techniques they encounter.

We recognize that the excitement around PBT must be matched by empirical data collected using robust methodology that focuses on the individual and functional processes of change. Indeed, progress of PBT relies on accumulation of intensive, within-person, longitudinal

data that tell us how specific treatment kernels affect specific people in their specific contexts. Group-level data are inherently incapable of illuminating this idiographic picture (Hayes et al., 2019; Molenaar, 2004). Moreover, analytic methods are needed to estimate dynamic networks (as in Fig. 3) and changes in them over time, to test the efficacy and precision of PBT. After all, if PBT introduces new goals to treatment (e.g., changing dependencies in a network), then novel ways to evaluate its ability to meet its stated objectives are warranted. Numerous papers have outlined ideas and recommendations for how to do so (see e.g., Hayes et al., 2021; Hofmann et al., 2020; Hofmann & Hayes, 2019), and, encouragingly, such research appears to be in progress (Ciarrochi et al., 2022; Ong et al., 2022; Sanford et al., 2022).

But PBT is a multiplayer game; ACT alone and cut off cannot realize the potential of PBT. The cavernous scope of the EEMM is designed precisely to welcome kernels and processes of change from all evidence-based therapeutic orientations. The real measure of PBT's effectiveness lies in its capacity to integrate diverse and fundamentally different perspectives. This could enable the field of clinical psychology to engage in meaningful discussions using a shared language, ultimately reaching consensus—or divergence—on the most beneficial change processes for clients based on their individual goals. This allows us to clearly compare the effectiveness of different processes under different names, like “apples” versus “oranges,” instead of the same processes under different names, such as “apples” versus “Äpfel.” It fosters constructive debate on the relative merits of each approach, helping us build a mutual understanding of when one is more appropriate than the other and under what circumstances. We hope this special issue provides a first step toward that goal.

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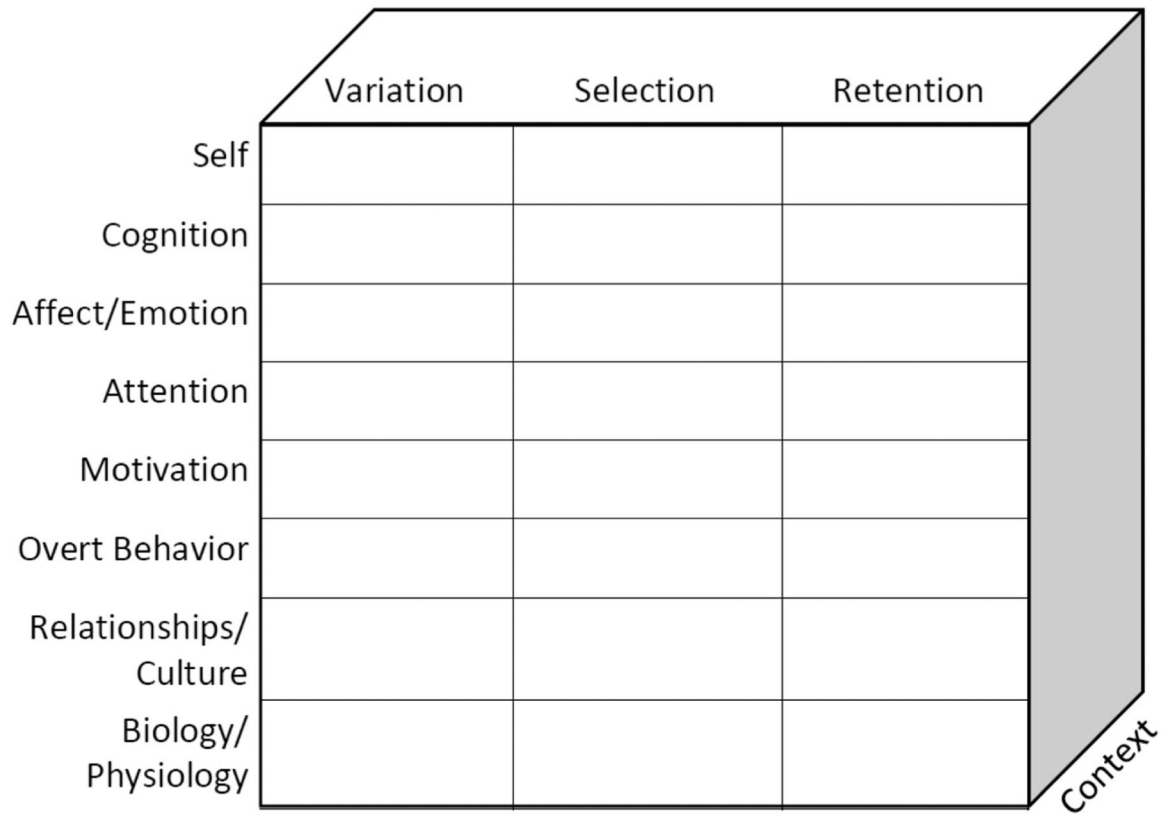


Fig. 1. Extended Evolutionary Meta-Model (EEMM)
 The Extended Evolutionary Meta-Model (EEMM) of Process-based Therapy (PBT). Adaptation is a function of variation, selection, and retention of idiographically relevant dimensions of human experience about the self, cognition, affect/emotion, attention, motivation, overt behavior, relationships/culture, and biology/physiology in a given context. These dimensions are often functionally interconnected, forming a complex network and are at different levels of abstraction and complexity. Psychopathology is seen as maladaptation of one or more of these processes and dimensions in a given context. Copyright 2024 by Stefan G. Hofmann and Steven C. Hayes. All rights reserved.

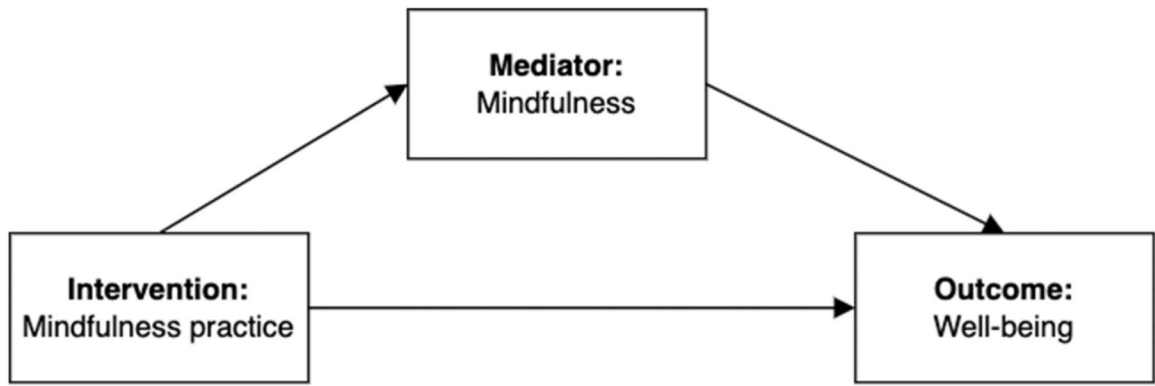


Fig. 2.
Typical mediational model

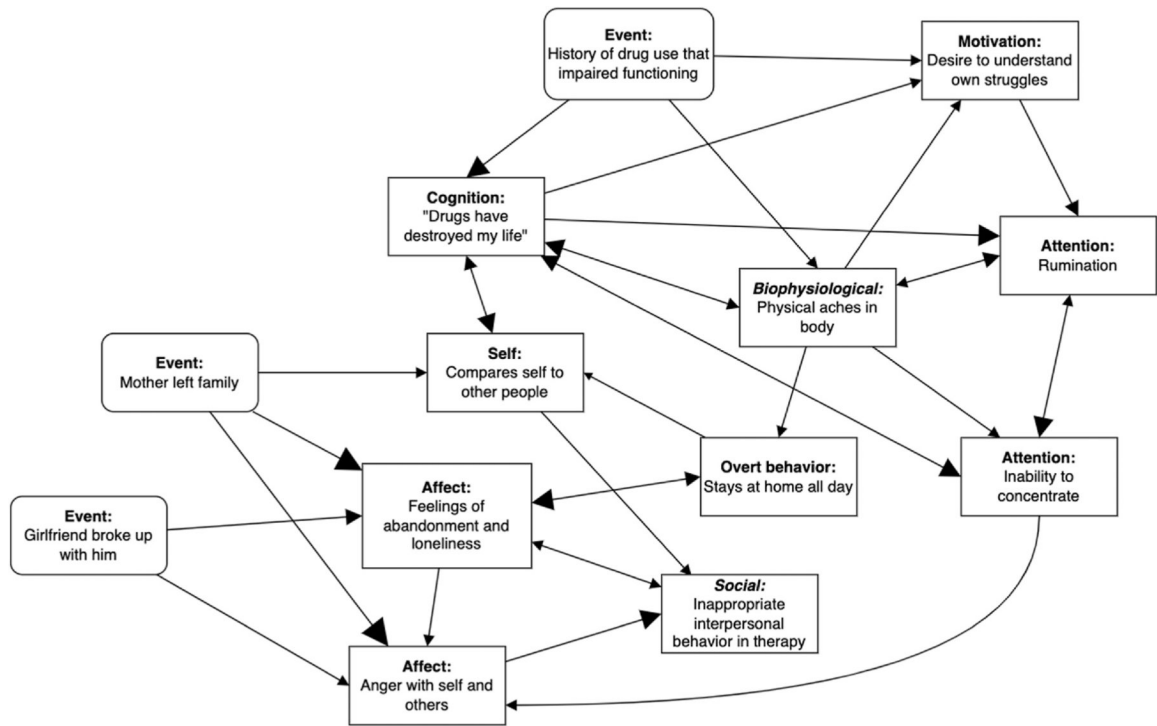


Fig. 3.
PBT Network Model at a Given Time for Nick

Note. The figure shows an abbreviated network with the most clinically relevant variables (as hypothesized by the therapist) to facilitate interpretation and treatment utility. The size of the arrowheads indicates hypothesized magnitude of the relationship. Dimensions are listed in bold; levels are listed in bold and italics. This network changes with time and treatment.

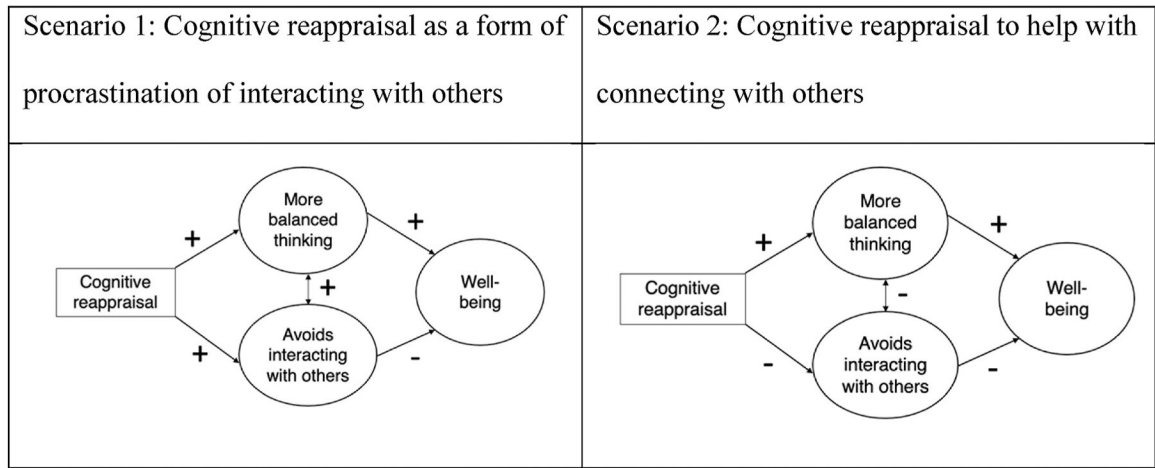


Fig. 4.
Cognitive reappraisal in Two context

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Table 1

EEMM dimensions and corresponding ACT subprocesses.

EEMM	Psychological Flexibility	Psychological Inflexibility
Affect	Acceptance	Experiential avoidance
Cognition	Defusion	Fusion
Attention	Present-moment awareness	Dominance of past and future attending
Self	Self- <i>as</i> -context	Self- <i>as</i> -content
Motivation	Values	Unclear values
Overt behavior	Committed action	Values-inconsistent action

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