Journal of Contextual Behavioral Science 39 (2026) 100971

Contents lists available at ScienceDirect

Journal of Contextual Behavioral Science

journal homepage: www.elsevier.com/locate/jcbs

# From experiential attachment to nonattachment: A theory-informed review of harmful and healthy pursuits of comfort, approval, competence, status, and control

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A B S T R A C T

Nonattachment has long been regarded as crucial for inner peace and spiritual growth, with traditions in Buddhism, Taoism, Christianity, Sikhism, and Islam emphasizing the release from ego-driven striving and excessive pursuit of pleasurable states. We propose a functional definition of nonattachment as a behavioral repertoire that involves noticing the pull of socially and culturally created rewards (e.g., praise, control, status, self-image) without automatically acting on them, and re-orienting attention to present circumstances and values-based action. Central to this stance is reducing the dominance of symbolic control, in which the pursuit of positive symbolic experiences disproportionately guides behavior and overrides sensitivity to other contingencies. In this review, we apply Relational Frame Theory and the Extended Evolutionary Meta-Model to organize and interpret the diverse findings related to nonattachment and its functions. Evidence links nonattachment to well-being, pain tolerance, openness, and prosociality, and points to intervention targets across biological, psychological, interpersonal, and cultural levels.

A teenager sees an Instagram badge: three new red hearts. Mood ticks up. Five minutes later, no more hearts; mood ticks down. Within an hour, they've checked fifteen times. They know the count doesn't alter their friendships or worth, yet the icon—an arbitrary symbol—now steers their behavior as if it reflects a real relationship. That is an example of experiential attachment: organizing action around symbolic rewards that feel urgent while crowding out the satisfaction of real psychological needs.

The pattern shows up everywhere. Online, we chase the rush of filling our basket with clothes, feel flat the moment the packages arrive at our home, and are anxious when the credit notice arrives. At work, we log 70-h weeks for the next promotion, trading sleep and relationships for a job title. Scrolling, a post says "the other" political party did something outrageous. We click to read, anger flares, and we forward it to our group text, feeling the rush of belonging and righteousness. Our dislike of "them" hardens. Different arenas, same loop: symbolic payoffs (likes, purchases, status, being right, feeling important) begin to dominate, narrowing choices and diverting attention from what truly matters.

We all chase signals of approval, competence, status, control, and comfort because they feel good and give us quick, symbolic hits of progress, connection, and safety. Yet these symbolic rewards can come to govern behavior in ways that carry long-term costs. Empirical studies on 'nonattachment' have documented the potential benefits of release from fixations to such symbolic 'attachments' (Sahdra et al., 2016; Sahdra et al., 2010). However, no comprehensive review and behavioral account has yet appeared. In this paper, we propose to fill that gap.

Patterns of suffering from fixations on symbolic rewards, which we will refer to as experiential attachment, have long been recognized in philosophy and spirituality. While the idea of nonattachment has deep

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https://doi.org/10.1016/j.jcbs.2025.100971
Received 21 January 2025; Received in revised form 13 November 2025; Accepted 15 December 2025
Available online 16 December 2025

roots in contemplative traditions, often associated with transcendence, ego-detachment, or liberation, our goal is to clarify this concept within a functional, scientific framework. It is a mistake to view behavioral and spiritual approaches as mutually exclusive. Seeing them as complementary perspectives on shared human concerns has been critical to the development of a contextual behavioral science approach (for a discussion, see Hayes, 1984).

The pervasiveness of nonattachment across independent spiritual traditions is itself theoretically significant. This concept emerges not as a cultural borrowing, but as a convergent discovery across diverse lineages—suggesting it addresses something fundamental about human psychology. In Jewish mysticism, the Tanya teaches: "For all things created are nullified beside Him … all of creation is nullified before God … and even more strongly … as though it were non-existent at all" (Tanya: Likutei Amarim, Ch. 33; Schneur Zalman of Liadi, n.d./Chabad.org). In Buddhism, the Dhammapada teaches, "From greed comes grief, from greed comes fear; he who is free from greed knows neither grief nor fear" (Müller, 2016, Verse 216). Similarly, Taoism asserts, "The world is won by those who let it go. But when you try and try, the world is then beyond winning" (Laozi, 1988, Chapter 48). Sikh scripture reinforces the principle of letting go of ego: "When I existed, You did not. Now it is only You, I am no longer there. Now You and I are one, seeing this my mind is at rest" (Guru Granth Sahib, 1604/Mander, 2021, p. 91). Christianity mirrors this idea: "Love not the world, neither the things that are in the world. If any man loves the world, the love of the Father is not in him" (The King James Study Bible, Full Color Edition, 2017, 1 John 2:15). In Islam, Surah Al-Hadid cautions against worldly attachments: "Know that the life of this world is but play, diversion, ornament, mutual boasting among you, and vying for increasing in property and children—the likeness of a rain whose vegetation impresses the farmers; then it withers such that you see it turn yellow; then it becomes chaff" (Nasr, Dagli, Dakake, Lumbard, & Rustom, 2015; Verses 57:20–21). These texts reflect a shared understanding across traditions that inner peace and spiritual growth come from transcending attachment to fleeting desires, egoic preoccupations, and external circumstances.

Our framework evaluates spiritual teachings by their behavioral functions rather than their metaphysical claims. In contextual terms, spiritual teachings can (a) loosen experiential attachment—reducing rigid investment in status, control, or even sacred rewards and while increasing flexible, prosocial action—or (b) substitute one attachment for another—shifting clinging from worldly symbols to sacred ones such as paradise, purity, or sect identity at the expense of loving actions. Put differently, we ask what the teaching does: does it broaden caring, here-and-now action, or does it narrow behavior around a symbolic future? We acknowledge that both patterns occur across traditions. When spiritual practices function to widen variation (e.g., curiosity, humility), shift selection toward loving care and responsibility, and retain habits that serve present goals (such as service, honesty, and repair), they instantiate nonattachment. When they function to narrow repertoires (avoidance of worldly obligations, contempt for out-groups) or to anchor worth in symbolic futures (afterlife points), they instantiate attachment to a sacred symbol. Thus, some forms of "nonattachment to the world" merely shift attachment to a different symbol, while others channel care more effectively into life as it is lived, including present relationships and responsibilities. Our account is deliberately agnostic about doctrine; it asks what patterns of action the beliefs organize, what contingencies maintain them, and under which contexts they shift.

Nonattachment is also discussed in various clinical psychology traditions, although not necessarily using this particular term. A claim from Acceptance and Commitment Therapy (ACT) is "If you are not willing to lose it, you've lost it" (Hayes & Smith, 2005, p. 125). Psychodynamic theorists have emphasized that "The more one tries to secure happiness, the more it eludes them. True contentment comes from letting go of the need for control" (Jung, 1953, p. 72). Gestalt therapists hold that "To suffer one's death and to be reborn is not easy" (Perls, 1992, p. 16). There are many other examples in virtually all major applied traditions.

Nonattachment has thus been recognized across both spiritual and clinical traditions, though often in different languages and with varying levels of precision. A Buddhist teacher speaks of "hungry ghosts" and "freedom from craving." An ACT therapist talks about "letting go of the rope" and "psychological flexibility." A psychodynamic clinician invokes "relinquishing omnipotent wishes of perfect gratification". In plain terms, this suggests giving up the fantasy of endlessly satisfying desire. These sound like different ideas, but they may be describing the same underlying process. To bridge these perspectives and make the concept testable, we need a framework that doesn't rely on any single tradition's vocabulary. This is where behavioral science becomes useful. Rather than debating whether attachment is a "mental state" or a "spiritual condition," we can ask: What patterns of action does it produce? What maintains those patterns? Under what conditions do they shift?

## 1. A behavioral account of attachment and nonattachment

We can understand experiential attachment and nonattachment as opposite ends of a continuum that describes what controls behavior in a given moment. At the experiential attachment end of the continuum, symbolic meanings tied to power, recognition, or righteous outrage exert rigid control, locking behavior onto a single narrow payoff (one if-then contingency). At the nonattachment end of the continuum, symbolic dominance weakens and sensitivity opens to a broader range of contingencies, allowing action to be guided by what is happening here and now. This behavioral framing has a technical advantage: it avoids treating thoughts and feelings as hidden "causes" that make us do things. In behavioral science, the causes of action lie not inside the mind but in the context—the situations we encounter, the histories we carry, and the consequences that follow our choices. A contingency is simply the if–then relationship linking a situation, an action, and what happens next. When we say "feelings and thoughts are behaviors," we mean they're events that occur in context, not mysterious forces pulling strings behind the scenes.

Consider a concrete example to make this tangible. If someone is confronted with an opposing view and leaves in anger, they may feel righteous and justified. In this case, the behavior of leaving is under a controlling relation established by context: the relational frame "anger means I should leave" dominates choice. This pulls behavior toward a symbolic reward and away from other contingencies such as problem-solving, relationship repair, or self-regulation. At the nonattachment end of the continuum, symbolic dominance weakens and sensitivity opens to a broader range of contingencies. This allows action to be guided by what is happening in the present moment. For example, someone could have the same thought ("Anger means I should leave") but notice it as just words and choose not to act on it.

Fig. 1 illustrates the nonattachment continuum as a shift in the probability of behavioral control across alternative contingency pathways. In the top panel (experiential attachment), behavioral probability concentrates on a symbolic-reward path (e.g., chasing likes). At the same time, other options (e.g., going to the gym, visiting a friend, socializing with family) are far less likely. In the bottom panel (nonattachment), symbolic dominance recedes and probability redistributes across alternative pathways, consistent with greater contextual sensitivity and values-consistent action. These modeled probabilities represent choice at a decision point and are dynamic.

## 2. Scope and aims

This review has three central aims. First, it seeks to explain how experiential attachment is acquired and maintained through symbolic learning processes, drawing on contextual behavioral science and Relational Frame Theory (RFT; Hayes et al., 2004). We emphasize how these patterns persist through the evolutionary principles of variation, selection, and retention, shaped by an individual's history of

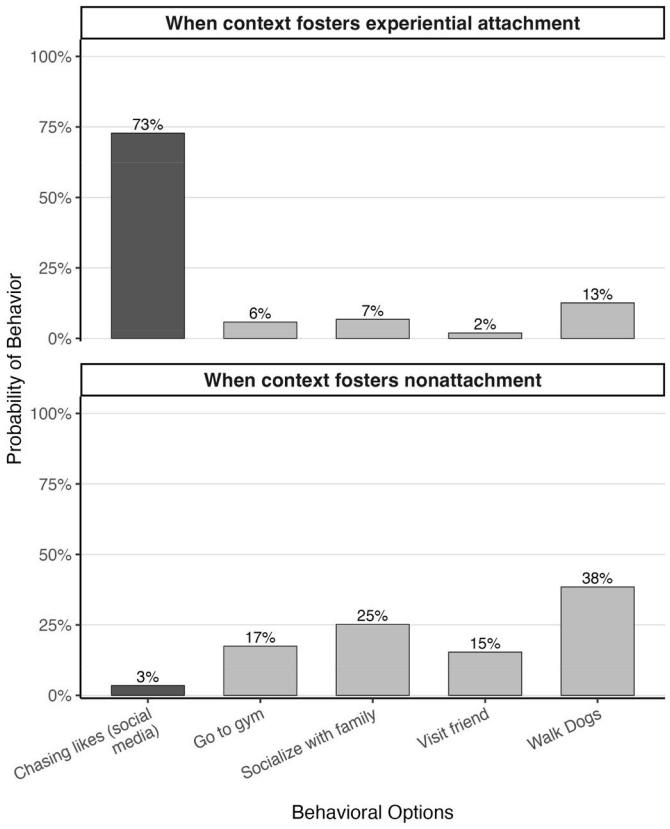


**Fig. 1.** Behavior probabilities when context fosters experiential attachment vs. nonattachment at a single decision point.

reinforcement, relational framing, and context.

Second, we extend these principles through the Extended Evolutionary Meta-Model (EEMM; Hayes et al., 2019, 2020), which applies variation, selection, and retention across multiple dimensions of human functioning, including biological, psychological, and social levels. This framework enables us to situate attachment and nonattachment within a broader account of human adaptation. Third, we apply insights from these two analytic approaches to lay the groundwork for personalized, process-based interventions that support nonattachment and psychological flexibility.

In developing this account, we distinguish experiential attachment from the better-established construct of experiential avoidance. While avoidance is driven by aversive control, through escaping or suppressing unwanted internal experiences such as shame or fear, attachment is maintained by appetitive control, through the pursuit of symbolic rewards like admiration, certainty, or dominance. These approach and avoidance systems produce different psychological and social outcomes, and may require distinct intervention strategies (Carver, 2004; Carver & Harmon-Jones, 2009).

We focus our review on non-ingestive forms of symbolic striving, including narcissistic self-inflation; the pursuit of certainty and superiority; and compulsive patterns of anger, outrage, status-seeking, shopping, working, exercising, internet use, gambling, and pornography consumption. While ingestive forms of attachment are important (e.g., substance use, overeating), they have been extensively studied in the addiction literature (Gearhardt & DiFeliceantonio, 2023; Volkow & Blanco, 2023). In contrast, non-ingestive forms remain understudied despite their potentially wide-reaching effects on well-being and social functioning.

## 3. Symbolic roots of experiential attachment

This section lays the scientific foundation for understanding how arbitrary symbols, such as likes, praise, and status markers, gain such robust control over behavior. The concepts may feel dense at first, but they provide the scientific precision needed to design effective interventions. We'll work through them step by step.

People can become trapped in cycles of symbolic striving, such as checking for likes, chasing promotions, or protecting their self-image, even when these pursuits undermine well-being. But how do arbitrary symbols gain such control? Why does a notification badge feel urgent? Why does praise from a supervisor evoke feelings of competence even if there is no tangible reward? Why do luxury goods feel like freedom? The answer lies in a uniquely human capacity: deriving meaning through learned relations. A dog needs direct pairing: "good dog" paired with a treat, repeated many times. But humans learn that "more likes (for example) = better person" through social convention alone, without any direct correlation between likes and genuine connection. Such is the power and the problem of symbolic learning.

### 3.1. How symbols acquire control

Relational Frame Theory (Hayes, Barnes-Holmes, & Roche, 2001), a modern behavioral approach to language, explains how selection by consequences builds and strengthens arbitrarily applicable relational responding, allowing symbolic cues to acquire strong control over action. It also demonstrates how context can influence the strength of this symbolic control (Belisle et al., 2020; Budziszewska et al., 2022; Gibbs et al., 2023; Stewart, 2016). Importantly, in RFT, "relational" refers not to social ties but to the learned psychological relations among symbols and events that are regulated, in part, by arbitrary social cues. Motivation, antecedents, and consequences shape relational behavior, and humans are evolutionarily prepared to acquire such relations through cooperation, joint attention, and social referencing (Hayes & Sanford, 2014). For example, a social-media "like" is an arbitrary cue that comes to symbolize approval and status, and in the context of experiential attachment, can dominate behavior even though the cue itself carries no intrinsic value.

Once people establish symbolic relations, they rapidly build networks of meaning under contextual control (i.e., when cues support that relating). These networks are socially constructed yet psychologically real. In the presence of functional cues, continual relating can form the raw material from which experiential attachment, i.e., rigid investment in symbolic rewards can arise, as people come to treat specific verbal cues (e.g., "success," "popular," "in control") as essential, valuable, or necessary, regardless of their utility (Hayes et al., 2004; Tornke, 2010).

### 3.2. Two contexts that govern symbolic behavior

RFT highlights two main contexts that guide symbolic behavior (Hayes et al., 2004; Tornke, 2010). The **relational context (Crel)** cues the type of relation involved (such as *same*, *opposite*, or *better than*). For example, social media comparisons may establish the rule, *"more likes = better person."* This equivalence is arbitrary because social convention, not any inherent feature of a "like," establishes it.

The **functional context (Cfunc)** cues which properties of an event are relevant in a given situation and thereby changes how other events in the same network influence behavior-a transformation of stimulus function. For instance, praise from a supervisor can suggest that more rewards are coming. Hearing "good job" may evoke reassurance or a sense of competence, even if the words were never directly paired with reward through classical or operant conditioning. In constrast, nonhuman animals may learn relations along formal properties (e.g., size) but typically lack arbitrarily applicable derived relating; thus, 'good job' won't pick up reinforcing functions unless it has been repeatedly paired with primary reinforcement (e.g., food) or with a

conditioned reinforcer already linked to food (Blackledge, 2003).

As relational learning expands, entire networks of cues can take on these functions. A job title or performance review may evoke pride or anxiety due to its position within a larger relational network, even if it does not accurately reflect genuine learning or growth.

Through such relational framing, arbitrary symbols come to acquire powerful functions that shape emotion and behavior. "Likes" may feel like a genuine connection, praise may feel like enduring competence, or luxury goods may feel like freedom. Over time, people may begin to work for these symbols as if securing them directly fulfilled the underlying needs: checking social media platforms compulsively to "stay connected," sacrificing health for promotions to "prove competence," or overspending to "feel free." In this way, symbolic striving can entangle people in networks of derived relations that narrow behavioral flexibility and reduce their sensitivity to opportunities for more authentic need satisfaction.

### 3.3. Targeting the levers: how to loosen attachment

Rather than positing hidden cognitions as causes, RFT highlights contextual levers clinicians can target to loosen attachment (Tornke, 2010; Hayes et al., 2021). One lever is the relational context (Crel), which specifies how stimuli are related (e.g., same/different, better/-worse, cause/effect). These relations can be shifted by training alternative frames through multiple exemplar practice, prompting comparison or opposition, or building new hierarchical distinctions. For example, you can weaken "more likes = better person" by training alternative relations (e.g., distinction and hierarchy: "likes ≠ worth; worth > metrics"), or by prompting opposite and comparison frames such as "What would 'less liked = more engaged' look like this week?" In this way, we promote nonattachment by devaluing symbolic approval and linking value to lived experience.

The other lever is the functional context (Cfunc), which specifies which properties of a cue matter in a given situation and thus shapes what the cue evokes. Clinically, cues that once carried appetitive functions (e.g., approval, status, or reward) can be reweighted to evoke different functions. We can shift a "performance review" from a symbolic verdict of achievement to a mindful re-view of whether our actions move in valued directions. A notification that once signaled status can be re-purposed as a prompt to pause, breathe, or reconnect offline. Even the word "likes," once fused with worth, can be reshaped to evoke curiosity about presence rather than popularity. In each case, we foster nonattachment when we recontextualize cues that once signaled symbolic reward so they invite openness, curiosity, and direct engagement with the present.

In short, RFT keeps the focus on modifiable contexts. By shifting relational and functional cues, people can reduce the dominance of symbolic-reward control and foster nonattachment at the moment of action.

## 4. Extending symbolic attachment through the extended evolutionary meta model

Experiential attachment doesn't just show up in one area—it shapes behavior across every dimension of functioning. To situate symbolic learning within a broader account of human functioning, we will extend our analysis with the Extended Evolutionary Meta-Model (EEMM; Ciarrochi, Hernández, et al., 2024; Hayes et al., 2020, 2022). Grounded in evolutionary principles, the EEMM maps how processes of change emerge as potentially helpful forms of variation that prove effective through differential reinforcement (selection), and are maintained and stabilized through repetition and other means (retention). These processes are then tailored to meet the demands or opportunities across biological, psychological, and sociocultural systems.

### 4.1. Why use the EEMM framework?

We make four arguments for utilizing the EEMM. First, complex network forms of functional analysis are demanded by RFT due to the bidirectional and combinatorial impact of symbolic learning. Paucivariate, linear, unidirectional functional relationships, as in classical four-function forms of functional analysis, begin to fail as adequate guides for therapists as soon as even the most minimal forms of relational framing appear (Belisle, Stanley, & Dixon, 2017).

Second, personalization requires kernelization, which is the use of simple, evidence-based units of behavioral influence that target specific processes of change (Embry & Biglan, 2008), linked to network-based functional analysis. Group averages often fail to apply accurately to individuals; people differ in their baseline function and in the pathways of change (Ciarrochi, Sahdra, et al., 2024; Ciarrochi, Sahdra, Hayes, et al., 2024; Sahdra et al., 2024, 2025). Even if "one-size-fits-all" packages work for the "average" person, they still contain components that many individuals do not need. Kernelization linked to broadly cast functional analysis (that is to multi-dimensional and multi-level analyses of response functions seen as a complex network) addresses this problem by isolating small, trainable units that specify both the change target (in variation–selection–retention [VSR] terms) and its location in the EEMM, supported by manipulation checks and direct nonattachment measures. This allows clinicians to deliver the right bump forward, for the right person, at the right time.

Third, the EEMM casts symbolic control in VSR terms across levels. Doing so anchors the account in evolutionary theory, one of the most widely accepted frameworks in the life sciences (Jablonka & Lamb, 2006). It also integrates RFT levers (relational and functional context) to support precise, testable change operations linked to evidence-supported therapy processes. This has notable practical advantages. For example, there is likely no need to reinvent a new nonattachment intervention package. Each process dimension that bears on nonattachment maps onto existing methods such as values clarification and committed action (motivation/behavior), exposure/willingness (affect), cognitive defusion and context-checking (cognition), mindfulness and attentional training (attention), behavioral activation and process practice (overt behavior), compassion training and self-as-context (self/social), and contingency shaping (social/behavioral ecology). In this way, the model supplies a common language for a relatively novel phenomenon and a direct route to testable, process-based interventions.

Finally, the EEMM provides a shared taxonomy for processes of change and intervention moves. In our work, trained raters can reliably classify relevant processes and techniques according to EEMM dimensions and levels, allowing for more comprehensive synthesis and clearer tests of mechanisms of action (Ciarrochi et al., 2021; Hayes et al., 2022).

### 4.2. How attachment and nonattachment operate across dimensions

With this foundation in place, we can now map how attachment and nonattachment operate across all eight dimensions. When experientially attached, variation narrows (people notice fewer options), selection favors symbolic rewards over satisfying actual needs, and repetition locks in rigid routines. Nonattachment reverses this: it widens variation, shifts selection toward values and context, and retains flexible patterns. Table 1 illustrates how this plays out across biology, attention, affect, motivation, cognition, self, behavior, and social dynamics.

Each row in Table 1 identifies common functions and associated selection criteria (needs or yearnings; Hayes, 2019), the kinds of problems that might arise when nonattachment is absent, and the processes that nonattachment supports. Seen through an evolutionary lens, these patterns reflect the dynamics of variation, selection, and retention. Variation refers to the range of cues, internal states, and responses someone typically accesses at a given choice point. When experientially

**Table 1**
Core functions, yearnings, and behavioral patterns in experiential attachment and nonattachment.

| | Common function + Key yearning | Experiential attachment | Nonattachment |
|---|---|---|---|
| **Biology** | Regulate drive, arousal, and energy states. *Yearning:* Health & vitality | Rigid investment in always feeling driven, energized, or productive; pursuit of stimulation as proof of vitality; difficulty resting. | Monitoring urges toward constant drive or stimulation; reducing over-reliance on the "go-getter" identity; and embracing openness to calm, rest, and embodied vitality as equally valuable states. |
| **Attention** | Direct and sustain focus; shift flexibly. *Yearning*: Orientation (knowing where I am, what matters now) | Persistent focus on imagined better pasts ("I was happier back then"), idealized futures ("Win and she will admire me"); absorption in fantasies (daydreams of praise, recognition, or triumph) | Detecting when attention is captured by rigid past, future, or fantasy narratives; flexibly disengaging and reorienting to the present context. |
| **Affect/ Emotion** | Generate and regulate feelings; signal what matters. *Yearning*: To feel (fully and flexibly) | Rigid control by emotional states, with behavior narrowly organized around prolonging pleasant highs (happiness, pride, thrill) or sustaining anger/outrage because they are experienced as rewarding or as symbolic proof of strength or justice. | Recognizing urges to intensify or maintain pleasant highs or anger/outrage; allowing emotions to arise and pass without treating them as proof of worth; cultivating openness to the full range of feelings, supported by flexible somatic awareness. |
| **Motivation** | Select and regulate direction (what to pursue and why). *Yearning*: Self-direction/ purpose | Behavioral probability narrows to symbolic rewards (grades, wins, recognition). Selection favors these outcomes, and behavior is driven by external demands or pressures ("have to/ should"), even when interest is low. | Noticing urges to chase approval, status, or certainty, behavioral probability opens beyond those pulls. Selection shifts to values and intrinsic interest, and behavior is sustained by meaning rather than only evaluation or praise. |
| **Cognition** | Make sense of the world; construct rules and beliefs. *Yearning*: Coherence & understanding world | Rigid investment in being right or making everything coherent; reliance on protective narratives and belief-confirming information. | Detecting the urge for certainty or correctness; holding beliefs lightly; revising interpretations flexibly; viewing thoughts as a transient process, not truths |
| **Self** | Construct and locate identity; orient to one's place, standing, and abilities. *Yearning*: Belonging/ connection, coherence of self | Rigid investment in conditional or fixed self-concepts ("I matter only if admired, superior, or defined by suffering"); reliance on symbolic comparisons and self-protective or self-defining narratives. | Noticing when self-worth is tied to symbolic evaluations; flexibly disengaging from these self-images; viewing self-evaluations as transient content rather than essence; relating to self as context — the ongoing perspective that holds experience, evolving, relational, and interconnected. |
| **Overt Behavior** | Build competence through action (skills, habits, exposure, practice under partial/absent feedback). *Yearning:* Competence | Performance fixation: doing only what is rewarded or "looks good"; compulsive striving to prove competence; overworking at the expense of valued experiences. | Noticing the pull to act only for appearance or symbolic reward, disengaging from those contingencies, and engaging instead in the behaviors that actually build competence — deliberate practice, process-focused repetition, and willingness to attempt difficult tasks even when errors occur or recognition is absent. |
| **Relationship and Culture** | Connect and cooperate with others; Understand where you belong in a group or culture. *Yearning*: Connection | Behavior organized around social status, superiority, or moral outrage as validation of worth; rigid in-group loyalty that fuels conflict. At the cultural level, a collective fixation on symbolic rewards—such as status, certainty, superiority, or outrage—regulates identity and action, while undermining flexibility, cooperation, and long-term well-being. | Noticing the addictive pull toward status or outrage, loosening from superiority narratives, and re-engaging in behaviors that foster empathy, generosity, and authentic connection, not dependent on rank. At the cultural level, traditions and institutions that emphasize humility, cross-group dialogue, and restorative practices—valuing cooperation, compassion, and shared humanity. |

attached, variation narrows. The person gravitates toward symbolic-reward routes such as status hits, control, or superiority. This narrowing crowds out alternatives across multiple dimensions. For example, it can reduce access to rest and calm (biology), present-moment cues (attention), a full feeling range (affect), values-guided aims (motivation), revisable beliefs (cognition), flexible identity (self), process practice (behavior), and empathic connection (social). When nonattached, variation widens, reopening these options.

*Selection* is the process by which consequences strengthen the pursuit of status signals (e.g., praise, likes, exclusive titles), increasing the probability that those responses will recur at subsequent opportunities. *Retention* is the consolidation of selected patterns through repetition, repertoire integration, and habit; over-invested symbolic strategies become the default and begin to dominate behavior even when they undermine long-term well-being, whereas repeated values-consistent choices retain flexible, adaptive routines.

## 5. Variation-Selection-Retention in action: examples across dimensions

Nonattachment arguably broadens variation, directs selection toward workable, values-aligned acts, and undermines the retention of symbolic-reward-chasing routines across biology, motivation, cognition, attention, affect, self, overt behavior, and social dynamics. For example, where workplaces reward constant output, contingencies differentially reinforce "always-on" responding. A nonattachment move is to contact reinforcement for rest and recovery, thereby restoring flexibility and vitality (biological level). Where rank is prized, contingencies reinforce extrinsic striving (e.g., beating others, pulling rivals down, chasing trophies or follower counts). In contrast, a nonattachment move involves mastery and contribution to process goals, fair play, shared improvement, and persistence grounded in interest rather than evaluation (motivation). When the rule *"If I let my guard down, I'll stop striving"* exerts control, behavior narrows around that story. A nonattachment move involves defusion and context-checking, weakening literal control and reopening alternatives (cognition). In effect, experiential attachment works to sustain highs, replaying wins to maintain pride, stacking stimulation to extend the thrill, and refreshing analytics to reawaken the buzz. A nonattachment move might be to savor and release, letting peaks pass so regulation stays flexible. Socially, group validation reinforces status displays and an addiction to outrage; the non-attachment move is to down-weight the incentive value of outrage and status, and orient towards empathy and generosity, which fosters contact with reinforcement for cooperation and opens up more adaptive patterns (social).

It is important to note that attachment can form around seemingly positive practices (Gebauer et al., 2018; Vaughan-Johnston et al., 2021). Clients may become rigidly attached to rest and recovery routines, such as midday naps or yoga classes, or to self-care rituals like meditation. In these cases, flexibility is again reduced, and the activity becomes another symbolic reinforcer to be protected. Nonattachment is not about swapping one set of reinforcers for another, but about cultivating freedom and flexibility, and developing the capacity to choose in the moment what is workable and needed. In this sense, the reinforcer is not the activity itself but the sense of freedom that comes from responding fluidly rather than rigidly.

### 5.1. The biology of nonattachment

Have you ever scrolled social media compulsively, even though it makes you feel worse? Or felt a surge to buy a product online, only to lose interest when it arrives? Or spent a lot of energy trying to nail a meeting with a high-status person, only to feel empty once it's over? Or spent hours on your hair, your outfit, your skin routine, only to feel like you still don't measure up. This puzzling pattern reveals how experiential attachment hijacks the body's regulatory systems, leading to a craving for stimulation that delivers less and less satisfaction.

To put this in VSR terms: When experientially attached, people chase the feeling of being "on," treat stimulation as proof of vitality, and resist recovery. Variation collapses (rest becomes unavailable), selection favors drive states, and repetition retains exhausting patterns. When nonattached, people hold their drive lightly, track consequences, and allow for calm and rest, thereby widening variation and shifting selection toward sustainable rhythms that are retained as health-supporting habits (see Table 1).

#### 5.1.1. The wanting/liking dissociation

The rigid over-investment in drive states can be explained biologically through the dissociation between "wanting" (craving) and "liking" (enjoyment). According to Incentive Sensitization Theory (IST), distinct neural systems govern these processes. Dopaminergic pathways integrate motivational salience with attention and learning. Hedonic "hot spots" in limbic circuitry generate pleasure (Berridge & Kringelbach, 2015; Robinson & Berridge, 2024). With repeated exposure, hedonic systems adapt, resulting in less liking. At the same time, dopaminergic systems sensitize, leading to more wanting. This creates a paradox where individuals crave stimulation even as it provides less satisfaction (Robinson & Berridge, 2001).

This mechanism has been shown across both substance-based and behavioral addictions. Sensitization drives compulsive engagement with hoarding, shopping, gambling, gaming, pornography, binge eating, and social media (File et al., 2022; Kyrios et al., 2018; Lawrence et al., 2014; Voon et al., 2014). Neural and behavioral studies indicate a heightened attentional bias to reward cues, with "wanting" increasing in severity while "liking" remains stable (He et al., 2018; Zheng et al., 2022). Even symbolic consequences can trigger this loop: for chronic gamblers, a "near miss" elicits brain activity resembling a win more than a loss, despite offering no real reward (Habib & Dixon, 2010).

Fig. 2 (File et al., 2023) illustrates how these wanting–liking dynamics map onto real-world engagement. Panel A shows that low wanting and liking reflect indifference, while high liking but low wanting reflects occasional enjoyment. In contrast, high wanting paired with low liking signals problematic, compulsive engagement. Panel B indicates that certain behaviors, such as social media, more frequently fall into this high-wanting/low-liking quadrant than others, like general internet use. Panel C shows how repeated engagement shifts behavior over time: wanting increases while liking decreases, reinforcing over-investment and narrowing flexibility.

#### 5.1.2. What nonattachment offers

From the perspective of nonattachment, these findings highlight how craving for stimulation can overwhelm the biological systems designed to regulate vitality. Nonattachment does not eliminate wanting, but involves noticing the pull of stimulation without automatically acting on it, loosening over-investment in cues of energy or productivity, and reorienting toward patterns that balance activity and rest. This allows variation, selection, and retention processes to support a healthier balance between stress and rest.

### 5.2. Attached attention

> "Let go of the past, let go of the future, let go of the present, and cross over to the farther shore of existence" *(Dhammapada, v. 348, trans.* Buddharakkhita, 1985*).*

By attention, we mean the allocation and flexible shifting of focus across external events and internal experience over time, including sustaining and disengaging (Ciarrochi, Hernández, et al., 2024). A common function is orientation (i.e., knowing where I am and what matters now; Hayes, 2019). In practice, attention can be captured by symbolic-reward cues, such as notification badges and follower counts, price-drop alerts, shopping carts, leaderboards, and "streaks," as well as inner rehearsals of praise, victory, or specialness. Attention needs to focus and shift according to the context. When experientially attached, variation in cues narrows, selection favors symbolic rewards, and repetition retains that pattern. When nonattached, attention re-orients to what is unfolding now, variation widens, and repeated practice retains flexible shifting (see Table 1).

**Examples of *attentional capture.*** Following a conflict or argument, people often engage in angry rumination and imagined interaction rehearsal (e.g., replaying the exchange, seeking revenge, crafting 'winning' comebacks), processes that have been shown to amplify aggressive intent and behavior (Honeycutt, 2020; Sukhodolsky et al., 2001). Similarly, people worry because it offers apparent benefits (Wells & King, 2006). In appetitive terms, worry promises symbolic rewards of control, coping, and improved performance (Wells & Cartwright-Hatton, 2004). This narrows cue variation and selects worry as a go-to strategy. When nonattached, people are expected to notice the pull of the past or the future without automatically acting on it, to

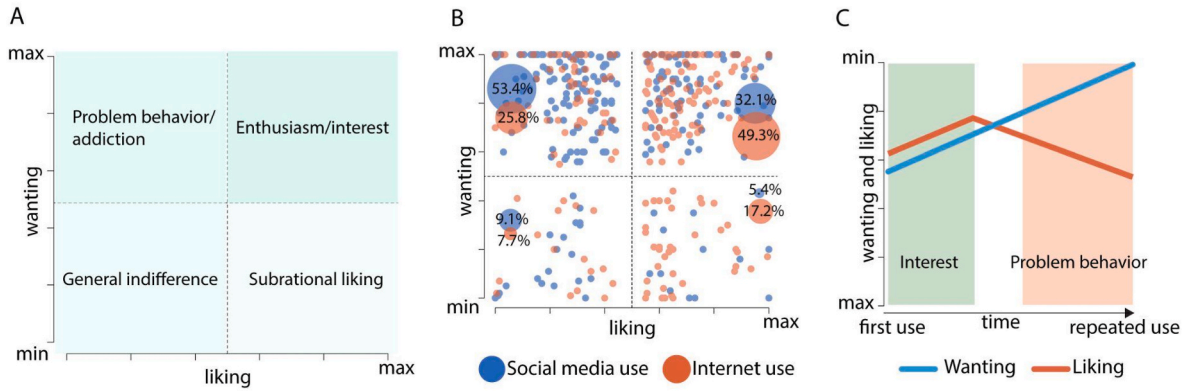


**Fig. 2.** Classification of hypothesized experiences associated with varying levels of wanting and liking.
Note. (A) Classification of hypothesized experiences associated with varying levels of wanting and liking. (B) Distribution of wanting and liking scores for social media use (blue, N = 221) and internet use (orange, N = 209) based on data from File et al. (2023). Scores within the 45–55 range for both wanting and liking were excluded from the plot to distinguish the four quadrants better. Larger points represent aggregated data within each quadrant. (C) Hypothetical time course of wanting and liking for a behavior, as predicted by IST. A behavior that begins as a high-wanting, high-liking interest can evolve into problematic behavior (high wanting, low liking) due to differential neuroadaptations in the motivational and hedonic systems. The figure was adapted and modified from File et al. (2023) with permission from the author.

reorient to what is unfolding now, and to flexibly shift to cues that support valued action, thereby widening variation and retaining more adaptive attentional habits.

***Mindfulness and nonattachment.*** Mindfulness measures are among the most common assessments of attention. Mindfulness has been broadly described as encompassing five dimensions: observing, describing, acting with awareness, nonjudgment of inner experience, and nonreactivity to inner experience (Baer et al., 2006). Alternatively, mindfulness has been described more narrowly as present-centered attention and awareness (Brown & Ryan, 2003). We adopt the narrower definition. Other mindfulness dimensions likely intersect with processes such as emotion (e.g., describing or accepting feelings), behavior (e.g., nonreactivity), or cognition (e.g., nonjudgment), which are discussed below. Both multidimensional and focused mindfulness measures show moderate correlations with higher levels of nonattachment (Osman et al., 2016; Sahdra et al., 2016).

Mindful awareness is considered a key precursor to nonattachment (Sahdra et al., 2016). It weakens the verbal pull to organize behavior around positive symbolic experiences by revealing them as transient and context-bound rather than fixed "things" to hold. In behavioral terms, nonattachment is a repertoire: notice the pull toward symbolic reinforcers, loosen over-investment, and re-orient to the present context and valued action.

However, mindfulness does not reliably produce nonattachment or well-being in all forms or contexts (Hayes et al., 2025; Hernández et al., 2025). Hypothesized mindfulness benefits often include hypo-egoic states, including being present-focused, low self-evaluation, and reduced concern about others' views (Leary & Diebels, 2013; Leary & Terry, 2012). But some practices can actually heighten ego involvement. Consider people who become attached to being a "good meditator." They may seek status through their practice and display elevated self-esteem or communal narcissism (Gebauer et al., 2018; Vaughan-Johnston et al., 2021). These findings suggest that attentional training should be treated in context and coordinated with self-related processes, so that awareness supports nonattachment rather than becoming another symbolic project.

### 5.3. Attached affect

> *"When* one *is touched by a feeling of pleasure, if one delights in it, welcomes it, and remains holding to it, then craving arises"* –(Bodhi, 2000, p. 1267)

Affective processes refer to the operations by which we generate, experience, appraise, use, express, and regulate feeling states to guide attention, motivation, decision-making, action, and social signaling (Hayes, 2019). When experientially attached, people chase pleasant highs (the rush of speed, the shopping-bag buzz, the notification lift) or organize behavior to maintain approach-negative states (anger, outrage) as symbolic proof of strength or justice. Affective variation narrows, and behavior shifts from tracking context to maintaining a state. When nonattached, feelings are allowed to rise and fall; variation widens, and actions are chosen for fit with the situation and values, rather than to preserve or amplify a feeling.

***Consequences of affective attachment.*** There are two significant affective consequences related to experiential attachment. First, in many addictions, the drive to act becomes decoupled from liking, and people continue the addictive behavior even when it no longer feels good (File et al., 2022, 2023). For example, a heightened urge to shop often fails to yield satisfaction with the purchase (File et al., 2023). Second, over-investing in particular feeling states is linked to higher negative affect and greater suffering; in a longitudinal study, experiential attachment predicted poorer mental health one year later (Ciarrochi et al., 2020; Nguyen & Nguyen, 2018).

Experiential attachment often accompanies, but is distinct from, experiential avoidance (i.e., the tendency to escape or suppress unwanted emotions; Deits-Lebehn et al., 2019). Attachment to a desired (even symbolic) state can foster fear of losing it: "anxious clinging" shows a moderate association with experiential attachment (Swails et al., 2016). Related findings suggest that a rigid pursuit of happiness can backfire, with a stronger valuation of happiness predicting lower well-being, more depressive symptoms, and a dampening of positive responses to a positive mood induction (Gruber et al., 2011; Mauss et al., 2011).

***Savoring versus rigid investment.*** Savoring positive experience is not the same as being rigidly attached to it. Intending to prolong positive experiences relates to greater happiness (Hansenne, 2021) and is only weakly tied to experiential attachment (Swails et al., 2016). By contrast, being overly concerned with maintaining happiness is associated with poorer outcomes (Zerwas et al., 2024). Converging daily-life data show that, on average, attachment to happiness predicts *lower* happiness, whereas prioritizing positivity predicts *higher* happiness, even after controlling for stress, positive events, loneliness, and social connections (Sahdra et al., 2025).

***Attachment to negative-approach emotions.*** Attachment might also be linked to approach-negative emotions (e.g., anger, outrage) when they serve appetitive functions (such as strength, justice, or status).

Replaying an argument under the rule "I need to stand up for myself" selects and sustains anger after the event. Anger is an approach-motivated state linked to the behavioural approach system (BAS) drive and reward responsiveness (Carver, 2004; Carver & Harmon-Jones, 2009). BAS drive predicts aggressive responding after frustration (Wingrove & Bond, 1998), and anger/aggression can secure social resources such as popularity and dominance (Ciarrochi et al., 2019). The state itself can become reinforcing, offering a sense of felt control and agency. Likewise, attachment can result in victim narratives (Stillweli & Baumeister, 1997). Outrage can be addictive (Brady et al., 2021).

***Equanimity as the alternative.*** Equanimity involves reduced reactivity and calm, flexible behavior across pleasant, unpleasant, and neutral events. It is cultivated by noticing pleasant or unpleasant feelings without automatically wanting more or pushing them away. This is linked to better regulation, reduced craving, and improved well-being. (Juneau et al., 2020). Nonattachment may support equanimity by releasing the need to hold positive states (e.g., pride), thereby reducing reward-seeking rigidity and the distress that follows their loss (Juneau et al., 2020).

### 5.4. Attached motivation

> *It is advisable to act according to one's own nature and duties. Even if it is not done perfectly, it is still better than doing another's duty. Better to die while engaging in one's own duties than be engaged in another's path, which is downright dangerous for the soul.–(Bhagavad Gita, 3.35, Prakash Books India Pvt. Ltd., 2019)*

Motivational processes select and regulate goal pursuit, including what to pursue, why, how hard, and for how long, in service of self-direction and purpose (Hayes, 2019; Ryan & Deci, 2017). In a Variation-Selection-Retention (VSR) framework, nonattachment widens motivational variation toward options beyond symbolic payoffs, shifts selection toward values-consistent and intrinsically interesting aims, and allows repeated values-guided acts to be retained as autonomous regulation. When experientially attached, symbolic control narrows variation to controlled motives (i.e., external and introjected demands: approval, status, certainty), selection favors those demands, and repetition retains them as compulsive patterns even when liking is low (File et al., 2022; Ryan & Deci, 2017).

***Controlled versus autonomous motivation.*** Motivational processes can be thought of as the internal drives behind behavior and include values, desires, and goals, and aspirations to succeed or achieve something meaningful (Ciarrochi, Hernández, et al., 2024). They also include urges to escape aversive situations, such as "I just want to give up." Self-Determination Theory (SDT; Ryan & Deci, 2017) places these drives on a continuum from amotivation (a lack of intent) to increasingly internalized forms of extrinsic motivation: external (driven by outside demands or rewards), introjected (motivated by internal pressures or obligation), identified (motivated by recognition of the value of behavior), and integrated (fully aligned with personal values and needs). At the far end of this continuum, intrinsic motivation represents engagement in activities for their inherent enjoyment and personal satisfaction.

Research suggests that nonattachment helps people find more autonomous motivation in performance settings by reducing fixation on external pressures or status (Elphinstone et al., 2021). For example, students who stop demanding perfection from themselves can work because they want to learn. When motivation is externally controlled, behavior gets steered toward trophies and status. Higher nonattachment relates to less drive to acquire these markers (Watson & Howell, 2023).

***Process focus versus outcome attachment.*** Motivation often involves symbolic outcomes, such as winning an award or earning high grades. Focusing on outcomes can be beneficial in some contexts (Woolley, 2009). The problem arises when individuals become rigidly invested in these outcomes, persistently pursuing them to the extent that it undermines their well-being and performance (Pande & Naidu, 1992). This can be contrasted with a process-focused approach, where individuals concentrate on enjoying the actions that lead to the outcome or channelling all cognitive and physical resources into the process itself, rather than wanting to "have" a particular result.

Several lines of research suggest a link between rigid outcome striving and poor performance. First, studies indicate that a process focus or intrinsic enjoyment (e.g., doing one's best in the moment or appreciating learning) is more effective for sustaining motivation than an outcome focus on extrinsic rewards (e.g., getting good grades) (Elphinstone et al., 2019; Howard et al., 2021; Lewis et al., 2022; Pham & Taylor, 1999). Consistent with this, nonattached athletes report higher well-being (Lewis et al., 2022), and nonattached students are more academically engaged (Elphinstone et al., 2019). Second, performance tends to decline when individuals become attached to the outcome, such as needing to win or avoid failure, rather than staying engaged with the task itself. This attachment redirects cognitive resources toward outcome-based worries ("What if I lose?"), reducing capacity for task-relevant focus ("What do I need to do right now?"; Mesagno & Beckmann, 2017; Roberts et al., 2019). Finally, rigid investment in outcomes may lead to reduced motivation to take risks for personal growth (Elphinstone et al., 2020).

### 5.5. Attached cognition

> *A word is no more than a means to an end … Not unlike a signpost, it points beyond itself … You can talk about God continuously for the rest of your life, but does that mean you know or have even glimpsed the reality to which the word points? It is really no more than an obsessive attachment to a signpost, a mental idol* (Tolle, 2004, p. 89)

Cognitive processes construct and revise rules, meanings, and mental models that guide appraisal and action, often serving the yearning for coherence and understanding (Hayes, 2019). In Variation-Selection-Retention terms, when experientially attached, people narrow variation to interpretations that protect certainty or control; they select confirmatory rules and narratives; and through rehearsal and social echo, they retain those rules as literal, over-learned guides. When not attached, people hold beliefs lightly, check the context, and entertain competing models; they select interpretations that fit with the situation and their values, and repeated context checks support flexible updating rather than rigid certainty. This framing yields a testable prediction: experiential attachment should heighten the perceived utility of confirmatory, self-serving information and dampen updating from disconfirming evidence.

Consistent with this view, Sharot and Sunstein (2020) propose that people seek information not simply to discover the truth, but for its instrumental (decision-making), affective (emotional impact), and cognitive (shaping mental models) utility. Experiential attachment may operate through a related but distinct mechanism: when behavior comes under the control of symbolic rewards tied to positive self-narratives, information that supports these narratives becomes more likely to control information-seeking behavior. As a result, it may contribute to cognitive biases such as the illusion of control (Goodie & Fortune, 2013; Stefan & David, 2013), unrealistic optimism (Jefferson et al., 2017; Shepperd et al., 2015), and overconfidence (Mahmood, 2016; Motta et al., 2018; Pikulina et al., 2017). For instance, gamblers often believe they exert control over random outcomes. Sharot et al. (2011) found that individuals update their beliefs more readily in response to desirable information than to undesirable information, not due to memory differences, but rather due to a failure to encode disconfirming evidence. This suggests a motivational bias towards maintaining an optimistic view of reality. We hypothesize that experiential attachment moderates this bias, such that individuals more attached to self-relevant information show stronger resistance to belief updating when confronted with

negative or disconfirming evidence (Brookings & Serratelli, 2006).

### 5.6. Attached self

> *To study the self is to forget the self. To forget the self is to be verified by all things. To be verified by all things is to let the body and mind of the self and the body and mind of others drop off. (*Dōgen, 2010/13th *century, as translated by Okumura, 2010) p. 2)*

Self can be seen as as three interacting processes: (1) self-as-content—learned relational framings that describe and evaluate "who I am"; (2) self-as-process—ongoing noticing of self-as-content (self-descriptions, self-evaluations) as transient verbal events rather than permanent facts; and (3) self-as-context—the observing perspective from which psychological events are noticed; the functional "I" who experiences being here, now, noticing—built from deictic framing (I/You, Here/There, Now/Then) (Hayes et al., 1999; Hayes, Barnes-Holmes, & Roche, 2001). In Hayes' account (2019), the "Self pivot" aims at our yearning to belong, to be seen, cared for, and included, and at a more profound sense of connection that emerges when the transcendent *I–here–now* takes precedence over a defended self-story.

When experientially attached, people narrow their variation to conditional self-worth (e.g., "I matter only if I achieve/win/stand out"), select self-elevating or self-protective narratives, and retain rigid self-stories through rehearsal and comparison, fusing thoughts and feelings with "me." Nonattachment widens variation: self-descriptions are held lightly, actions align with context and values rather than self-protection, and perspective-taking from self-as-context becomes more accessible through practice. (Ciarrochi, Hernández et al., 2024).

Research suggests that attachment to the self can be reliably measured and linked to well-being and mental health (Whitehead et al., 2018). This finding has been replicated and extended to show that nonattachment to self has incremental value over measures of self-compassion and is a significantly better predictor of psychological distress amongst those experiencing at least mild depression symptoms (Whitehead et al., 2021).

***Narcissism and self-enhancement.*** Narcissism offers a clear example of experiential attachment to the self, involving both attachment to feelings of superiority and craving for attention and admiration (Morf & Rhodewalt, 2001; Thomaes et al., 2018). From an RFT perspective (Hayes, Barnes-Holmes, & Roche, 2001), narcissism reflects socially dominant relational framing sustained by comparative and deictic relations. Comparative framing establishes the self as "better than" others, while deictic framing/perspective taking places the self at the psychological center of experience. When these frames become arbitrarily applicable (applied across contexts independent of direct contingencies) and maintained by symbolic reinforcers like admiration or superiority, the result is rigid self-focus.

High narcissistic traits are linked to defensiveness and aggression, particularly following negative feedback, as individuals strive to protect their inflated self-image (Lambe et al., 2018; Rhodewalt & Eddings, 2002; Rhodewalt & Morf, 1998). Though narcissists often conceal negative emotions and may not report distress, defense mechanisms such as denial, self-enhancement, paranoia, and aggression commonly surface during social rejection or exclusion. These reactions strain relationships and correspond with heightened neural sensitivity to social pain, suggesting that social rejection causes genuine distress to narcissists at the neural level even when not consciously acknowledged (Cascio et al., 2015; Harjunen et al., 2023; Lambe et al., 2018; Rasmussen, 2016).

People commonly perceive themselves as above average (the better-than-average effect), a robust finding that is cross-culturally consistent and stronger in individualistic contexts (Zell et al., 2020). Self-enhancement can co-occur with benefits (e.g., higher life satisfaction and buffering when self-worth is threatened; Zell et al., 2020; Brown, 2012), but it also comes with costs (e.g., defensive reactions to biased feedback and stereotype endorsement; overconfidence and miscalibration in judgment; Howell & Ratliff, 2017; Guenther & Alicke, 2010; Zell et al., 2020). In our terms, experiential attachment to positive self-views narrows the range of possible ways one can construe events and feedback and retains self-protective narratives even when they impede effective action.

***Loosening attachment to self-image.*** Ontological Addiction Theory extends this logic: people can become addicted to the very idea of an inherently existing self, resisting its relinquishment despite impairment (Shonin et al., 2013; Van Gordon, Shonin, Diouri, et al., 2018). From this perspective, the self is an imputed construct that cannot be identified in separation from its causes and attributes, nor can it be found within those causes and attributes, whether singular or in sum (Van Gordon, Shonin, Diouri, et al., 2018). Meditation Awareness Training teaches about emptiness, working from the assumption that individuals are reluctant to relinquish the erroneous belief that the self has an essential nature independent of other phenomena (Shonin et al., 2013; Van Gordon, Shonin, Diouri, et al., 2018). Through practice, meditators investigate this directly, coming to see self-concepts as mental designations rather than solid, permanent entities requiring protection and enhancement. Mindfulness-based programs grounded in Ontological Addiction Theory show psychological benefits, including reductions in work addiction, sex addiction, and gambling addiction, consistent with reduced attachment to rigid identities (Shonin et al., 2013; Van Gordon et al., 2016; Van Gordon, Shonin, Dunn, Garcia-Campayo, et al., 2017).

ACT offers a complementary approach: rather than investigating whether the self exists, practitioners teach clients to relate to thoughts and feelings from an observing perspective rather than as the self (Hayes & Ciarrochi, 2015; Hayes et al., 1999). For example, instead of "I am anxious" (identification), one might notice "I'm having the thought that I'm anxious" (perspective). This subtle shift reduces fusion with evaluative self-concepts, supporting psychological flexibility and well-being (Godbee & Kangas, 2020). Research shows that changes in self-as-context predict improved treatment outcomes in chronic pain and significantly reduce distress compared to control conditions (Carrasquillo & Zettle, 2014; Godbee & Kangas, 2020; Yu et al., 2017).

In contrast to experiential attachment to positive self-views, humility involves a low self-focus, a secure and stable sense of self, and acknowledging strengths without self-aggrandizement, as well as appreciating others' contributions (Kruse et al., 2014). Although some humility scales include modesty, in our nonattachment framework, unattached humility is not modesty or low self-esteem; it is openness to correction and learning (e.g., "I am willing to admit when I am wrong," intellectual humility; Bowes & Tasimi, 2022; Krumrei-Mancuso et al., 2020; Porter, 2023). Empirically, humility relates to better diversity attitudes and less prejudice, greater self-regulation (i.e., stamina, restraint, perseverance), improved patience via intervention, reciprocal links with gratitude, better team outcomes in leadership, and relationship initiation/maintenance (AlSheddi, 2020; Kruse et al., 2014; Lavelock et al., 2014; Rego et al., 2018; Tong et al., 2016; Van Tongeren et al., 2014). Framed functionally, humility loosens attachment to evaluative self-rules ("I must be superior/be the humble one"), broadens variation, and selects responses matched to context over status preservation.

### 5.7. Attached action/overt behavior

> *"Free from desires, free from ego, free from grief, and then fight!"* (Bhagavad Gita, Prakash Books India Pvt. Ltd, 2019, Chapter 3:30)

By overt behavior we mean the process of enacting publicly observable acts and strategies, as well as intentionally omitting or inhibiting action when there is a behavioral inclination or opportunity to act (e.g., "I almost spoke up in the meeting but stayed silent to avoid criticism"; "I didn't apply for the new role to avoid losing my current sense of mastery"; Ciarrochi, Hernández, et al., 2024). Against the worry

that nonattachment dulls striving, Pande and Naidu (1992, p. 91) describe nonattached action as "intense, though disinterested," engagement with the task rather than with outcome preoccupation; consistent findings show more, not less, engagement under nonattachment (Elphinstone et al., 2019, 2020; Sahdra et al., 2016).

Overt behavior often builds competence through action, increasing skills, habits, exposure, and practice even under sparse feedback (Hayes, 2019). People widen their variation (through trial, practice, and risk of failure), select process-focused actions that fit with the context and values, and repetition helps retain durable skills. When experientially attached, behavior narrows to image-preserving or performative acts. People do what "looks good" or may compulsively act to secure symbolic wins, or withhold action to avoid status loss; external metrics select these patterns, and rehearsal retains brittle routines. By contrast, nonattachment is not passivity: nonattachment predicts greater academic engagement, valued risk-taking, and life effectiveness (Elphinstone et al., 2019, 2020; Sahdra et al., 2016).

Consistent with a functional view, we judge acts by their purpose, not by their form. The same behavior (e.g., heavy internet use) can serve avoidance (evading face-to-face contact; Hernández et al., 2024) or symbolic striving (rigid pursuit of in-game status or "levels"; Brand, 2022). The latter exemplifies experiential attachment, characterized by a persistent pattern aimed at securing symbolic rewards, whereas the former exemplifies experiential avoidance.

### 5.8. The social and cultural dynamics of attachment

> *Non-attachment does not mean that one becomes aloof or unfeeling. Unconditional love involves non-attachment because there can be no self-centered motivation in a life of true love* (Ittoku, 2024),

We treat social behavior as the process of sensing others and their context, signaling (through words, gaze, prosody, and gesture), coordinating (through turn-taking, joint attention, and role/norm alignment), exchanging (help, information, and resources), and repairing ruptures (through apology, forgiveness, and boundary-setting). It encompasses acts and omissions (including engaging, withholding, and excluding) and operates through contingencies such as reciprocity, fairness, status, and reputation (Hayes, 2019). When experientially attached, variation narrows to rank-and-recognition cues (luxury markers, titles, exclusivity); comparison and zero-sum strategies are selected, and social reinforcement retains status routines, fueling competition, envy, and performative relating. When nonattached, status symbols do not dominate choice; selection shifts toward mutual responsiveness and shared aims, and connection is pursued for its own sake. Nonattachment is not aloofness; it is steady warmth (e.g., "unconditional love involves non-attachment", Ittoku, 2024).

Status-oriented investment tends to push interactions toward competition and envy, fostering a zero-sum mindset, while self-focused happiness goals can erode connections (Mauss et al., 2012). Consistent with this view, higher experiential attachment is associated with lower empathy (Joss et al., 2020) and less observable prosocial behavior (Sahdra et al., 2015). Moreover, valuing happiness is associated with greater daily loneliness, and experimentally inducing people to prioritize happiness increases loneliness, as measured by both self-report and biological indices (Mauss et al., 2012).

At the group level, experiential attachment manifests as a rigid, identity-based investment in positive in-group narratives, which fuels intergroup conflict through moralized stories that elevate the in-group and vilify the out-group. Online, out-group hostility drives engagement (Rathje et al., 2021) and moral outrage becomes socially reinforced and self-perpetuating (Brady et al., 2021). Even in prosocial contexts, attachment to collective outrage reduces openness, deepens polarization, and sustains group validation (Nehrlich et al., 2019).

## 6. Interventions that foster nonattachment

### 6.1. Interventions focused on attention

Mindfulness-based and mindfulness-integrated interventions have effectively promoted nonattachment by addressing behaviors across multiple mindfulness-related dimensions (Karing & Beelmann, 2021; Maddock et al., 2019, 2023; Montero-Marin et al., 2016; Wu et al., 2019). While these interventions share a common goal of encouraging mindfulness, they differ in their approaches and areas of focus. For example, Mindfulness-Based Stress Reduction (MBSR) combines mindfulness meditation, body awareness, and gentle yoga to enhance mindfulness and alleviate stress (Karing & Beelmann, 2021). Mindfulness-Based Cognitive Therapy (MBCT) integrates mindfulness meditation with cognitive therapy techniques to modify negative thought patterns (Maddock et al., 2019). Vipassana meditation employs focused attention on the breath, open monitoring, and noting experiences without attachment to them (e.g., mentally noting "anger rising", "itchiness", "pleasant thought") to cultivate insight and equanimity (Montero-Marin et al., 2016). Mindfulness-Based Social Work and Self-Care (MBSWSC) introduces mindfulness and addresses stress, cognitive processes, coping strategies, self-compassion, and anti-oppressive practices (Maddock et al., 2023). Finally, the mindfulness-integrated Attentional Training Program based on the Sandhinirmochana Sūtra aims to enhance wisdom and nonattachment (Wu et al., 2019). Although it remains uncertain whether mindfulness alone accounts for increases in nonattachment, these interventions offer converging evidence that mindfulness-related attentional processes may facilitate nonattachment, in line with theoretical predictions (Sahdra et al., 2016).

### 6.2. Interventions focused on cognition

Experiential attachment involves persistent verbal behavior that protects cherished beliefs and discounts conflicting evidence, even when doing so impairs adaptability and flexibility. Research suggests that cognitive interventions might overcome this bias by prompting people to get into a "counterfactual mindset", a tendency to reflect on alternative outcomes that could have occurred if events had unfolded differently (Kray & Galinsky, 2003; Rose et al., 2024). Rose et al. (2024) demonstrated that individuals in the counterfactual mindset condition were more willing to change their existing beliefs when presented with evidence that contradicted their beliefs. Kray and Galinsky (2003) showed that activating a counterfactual mindset in groups can reduce decision errors by increasing the search for disconfirmatory information. Giving up one's preferred belief may be seen as a kind of nonattachment or letting go.

Interventions aimed at directly altering individuals' beliefs about nonattachment and its significance are categorized under cognitive interventions (Ciarrochi, Hernández, et al., 2024). Klien et al. (2024) implemented a didactic nonattachment intervention based on Buddhism's "Three Marks of Existence," which emphasizes life's inherent dissatisfaction, the impermanence of all things, and the absence of a separate self. They found that this intervention enhanced non-attachment attitudes and expedited recovery from negative emotional experiences without affecting the initial intensity of those experiences.

### 6.3. Interventions focused on the self

Recognizing the transient nature of positive self-images and adopting a "self-as-context" perspective (i.e., viewing oneself as the observer of experiences rather than being defined by them) can theoretically reduce attachment to self. ACT fosters this approach by cultivating an expanded sense of self that observes inner and outer experiences without attachment (Hayes, 2019). Research supports the effectiveness of ACT in

increasing self-as-context. For instance, Yu et al. (2017) found that changes in self-as-context were associated with improved treatment outcomes in individuals with chronic pain. Additionally, Godbee and Kangas (2020) found that a self-as-context intervention significantly reduced distress compared to a control group, though it was not more effective than cognitive reappraisal. Finally, Carrasquillo and Zettle (2014) found that a self-as-context intervention increased pain tolerance.

Meditation Awareness Training (MAT) includes an attentional component and explicitly focuses on the self. It teaches about emptiness and works from the key assumption of ontological addiction, which is the unwillingness to relinquish the erroneous belief that the self has an essential nature that is independent of other phenomena (Van Gordon, Shonin, Diouri, et al., 2018). Emptiness in meditation training is not empty in how we think about "nothing inside". Rather, it refers to "empty of a separate self". When you contact emptiness, you experience the self as interconnected, whole, and not separate. MAT is effective in treating people with work addictions (Van Gordon, Shonin, Dunn, Garcia-Campayo, et al., 2017), sex addiction (Van Gordon et al., 2016), and gambling addiction (Shonin et al., 2013). Further, in a randomized controlled trial of MAT, nonattachment to self was shown to fully mediate the relationship between MAT and reductions in both somatic and psychological fibromyalgia symptoms (Van Gordon, Shonin, Dunn, & Griffiths, 2017).

We reviewed humility under the self section above and suggested that humility can counter the attachment to pride and self-enhancement. Although not explicitly linked to the nonattachment measures, two interventions have shown that humility can be increased (Hanel et al., 2023; Lavelock et al., 2014), suggesting that these same preparations may also be used for promoting nonattachment. Lavelock et al. (2014) administered a 7.5-h workbook intervention designed to encourage humility by focusing on components such as acknowledging limitations, staying open to new ideas, focusing beyond the self, developing an accurate self-view, and promoting gratitude and forgiveness. They found that individuals randomized to the humility condition exhibited increased trait humility, forgiveness, and patience over time. In another study, Hanel et al. (2023) indirectly increased intellectual humility by having people affirm their values. The explanation for this effect is that affirming values is a way to increase a sense of self-coherence and integrity, thereby reducing defensiveness when encountering information that challenges one's beliefs and fostering openness to alternative perspectives.

## 7. When is symbolic attachment adaptive?

Although we often emphasize the costs of experiential attachment, there are contexts in which narrow symbolic control is adaptive. When the real world offers no workable alternatives, insensitivity to competing contingencies can help people endure hardship, act with resolve, and maintain a sense of meaning. A soldier who refuses to flee because honor demands sacrifice, or a physician who stays with patients under impossible conditions, may survive or succeed because they were not open to other options. In prisons, refugee camps, or situations of extreme deprivation, symbolic commitments—such as faith, identity, and moral purpose—can provide the only stable sources of structure and hope. In these settings, attachment is not the problem; it is the best option available.

We argue that it is rigidity, not symbolism, that creates suffering. Symbolic attachment becomes costly when the context shifts and the behavior does not. A commitment that once protected a person can harden into a fixed pattern that blocks new opportunities. For example, someone who clung to outrage to stay safe in a violent environment may keep reacting with the same intensity long after the danger has passed. A student who relies on a leaderboard badge to stay motivated may continue pushing past injury signals because the symbol still dominates their behavior. The issue is not the symbol itself but the loss of flexibility. Experiential attachment narrows behavior and reduces sensitivity to changing contingencies. When better options emerge and the person cannot adjust, the same pattern that once worked begins to extract a cost.

Not all symbolic engagement reflects attachment. Groups often use shared symbols to intensify experience. A team jersey unites people because it represents genuine teamwork. A trophy marks competence earned through effort and skill. These symbols deepen meaning without cutting people off from the consequences of their actions.

Experiential attachment occurs when the symbol matters more than what it represents. Group members may defend the jersey or flag even when the team cheats, excuse harmful behavior by leaders as a means to "protect the cause," or treat criticism of the group as a personal attack. Loyalty shrinks to slogans, badges, and purity tests, rather than how people actually treat one another. Disagreement from outsiders can then be read as proof that "we are right and they are dangerous," fueling contempt and sometimes open hostility. Nonattachment, by contrast, allows people to wear the jersey, cherish the flag, or celebrate the win while remaining responsive to what is happening now—questioning harmful practices, updating stories when facts change, and staying open to the humanity of those outside the group.

## 8. Limitations and future intervention directions

Our review shows that programs targeting or assessing nonattachment tend to span attentional, cognitive, and self-related domains. Many likely foster nonattachment implicitly (Tremblay et al., 2024), but do not measure it as an outcome, and relatively few target biological, affective, or social pathways. Most packages are multicomponent (e.g., mindfulness-based attention training blended with yoga, cognitive restructuring, self-compassion, or values work), making it hard to isolate active ingredients (Hayes et al., 2019, 2022). Even within "attentional interventions," emphasis varies (pure awareness vs. transience, emptiness, interdependence). Self-focused programs range from attentional refinement (Meditation Awareness Training; Van Gordon, Shonin, Dunn, Garcia-Campayo, et al., 2017) to behavioral humility (e.g., performing menial tasks) and awe induction (Lavelock et al., 2014), as well as motivational clarity achieved through values clarification (Hanel et al., 2023). This diversity complicates causal inference about what exactly is being moved to increase nonattachment and well-being across people and contexts.

A further challenge concerns the clean separation of appetitive and aversive control. While we have framed experiential attachment as appetitive (pursuing symbolic rewards) and distinct from experiential avoidance (escaping unwanted experiences), these systems often operate in tandem. They may be difficult to disentangle in practice. For example, does anger primarily function to approach symbolic rewards (feeling strong, righteous, or morally superior), or does it operate aversively by pushing others away to avoid vulnerability or exclusion? Similarly, does seeking approval reflect appetitive pursuit of validation, or aversive prevention of rejection? Future research should investigate whether we can reliably distinguish between appetitive and aversive control in naturalistic contexts, and whether interventions targeting attachment require different strategies than those targeting avoidance. Alternatively, a unified approach addressing both systems may prove more effective.

To support personalization, it may be helpful to specify the targeted process and its location within the EEMM, then test small, trainable kernels with manipulation checks and direct non-attachment measures (Embry & Biglan, 2008; Hayes et al., 2019, 2022). We provisionally organize kernels by VSR to clarify intended targets and proximal markers.

**Variation kernels** expand what people notice and do now, loosening symbolic dominance at the moment of choice. In the attention dimension, brief gratitude/savoring exercises, as well as short contemplations of impermanence (e.g., the *Five Remembrances*), can reorient awareness

to what is unfolding in the present (Kornfield, 2009). In the affect and self dimensions, nonverbal, shared practices such as group art or music sessions and brief silent retreats may shift the focus from individual outcomes to collaborative activity, opening up quieter, less status-laden feeling states. In the social dimension, structured contact with diverse others broadens the social cue set and viable roles, increasing the range of workable responses (Pettigrew & Tropp, 2006). Together, these maneuvers may broaden variation across dimensions, so more context-fit, values-consistent actions are available for selection next.

**Selection kernels** recalibrate what "counts" at choice time across EEMM dimensions. In terms of motivation and overt behavior, values clarification and process-over-outcome practice may contribute to contribution, learning, and follow-through, outranking factors such as visibility, likes, or prestige (Chase et al., 2013). In self and affect, compassion and self-compassion may lower the pull of validation hits and the lure of short-term highs, making lower-glamour, higher-value actions selectable (e.g., doing the unflashy rep, helping a teammate off-camera, posting less but with purpose). In cognition/self, self-as-context may help people notice, "I'm having the thought *I need to look exceptional*" (instead of *I am exceptional only if I'm admired*), which decouples appetitive self-judgments from behavior so selection can track the situation and values (Hayes & Ciarrochi, 2015; Hayes et al., 1999). In biology, breathwork/relaxation may shift physiology from a drive to a state of safety/calm (Kjærvik & Bushman, 2024), reducing the perceived payoff of stimulation and making quieter, value-consistent options easier to choose. In attention and cognition, teaching the wanting–liking distinction (Robinson & Berridge, 2001, 2024) can help re-weight cues at decision points. As wanting (the urge) is given less control value, and liking (enjoyment) or purpose are given more, symbolic "wins" become less likely to drive the next move. In the social dimension, compassion for others may re-weight choices toward impact on people rather than status displays, so sharing credit or giving time clears the bar more often.

**Retention kernels** focus on making the new pattern stick. These stabilize gains so they show up when it matters. Examples include stimulus control/environment redesign (e.g., hide vanity metrics, reduce cue exposure (Verreault et al., 2024); simple if-then implementation plans (Gollwitzer & Sheeran, 2006) and habit formation (Lally et al., 2010) to tie values-consistent acts to reliable cues; scheduled repetitions with brief feedback to support people to continue the positive behavior (Harkin et al., 2016); prosocial "giving" reps may strengthen letting go of excessive self-interest and consolidate the link between nonattached responding and well-being (Hui et al., 2020); or integrating change into broader "keystone" habit shifts (e.g., targeting sleep, exercise, or substance use) to anchor and reinforce larger routines (Bjorvatn et al., 2021). The aim is to retain flexible, values-guided patterns, rather than status routines (Hayes et al., 2019, 2022).

Personalization means deploying the smallest effective kernel for the right person at the right time, retaining what works, while measuring non-attachment directly. Because levels interact, we propose starting with simple cross-level pairs. We recommend that researchers preregister each test explicitly: (1) the kernel and its EEMM dimension/level, (2) the single proximal outcome and its measure, (3) the sampling window (e.g., minutes, same-day), and (4) the within-person analysis (pre–post or short-lag). For example, a study could pre-register that brief breathwork in the biology dimension will lower nonattachment; that self-as-context plus compassion in the self dimension will reduce validation seeking captured via EMA over the next hour; and that hiding vanity metrics in the social environment will reduce endorsement of self-evaluative rules on a brief cognitive probe in the same session.

## 9. Conclusions

Past research on attachment-related phenomena often remains siloed, preventing recognition of the central role of nonattachment and experiential attachment in undermining individual and social well-being. This review aimed to bridge these divides by integrating findings across multiple disciplines. It examines biological factors (e.g., "wanting without liking"), psychological constructs (e.g., narcissism, the better-than-average effect, materialism, compulsions, behavioral addiction, and equanimity), and social behaviors (e.g., addiction to outrage and self-serving group beliefs). Although these areas rarely intersect, we showed how RFT and the EEMM provide a framework to unify them. It demonstrates how experiential attachment underpins many of these diverse topics and behavioral patterns.

Interventions designed to increase processes such as mindfulness or self-compassion, or reduce experiential avoidance, may require recalibration to address experiential attachment effectively. For instance, interventions targeting experiential avoidance often present a binary choice: stop engaging in harmful behaviors or continue down a detrimental path. By contrast, addressing experiential attachment involves a different challenge: letting go of immediate gratification, which may be inherently pleasurable, to pursue outcomes that are ultimately more rewarding and meaningful. While experiential avoidance focuses on immediate problems, experiential attachment highlights missed growth opportunities. In the context of "disorders" or negative mindsets, issues of attachment are often overlooked. The motivational contrast is significant: Stopping something harmful versus sacrificing present pleasures for greater future benefits. Addressing this challenge may require integrating insights from both clinical and positive psychology (Ciarrochi et al., 2021).

Experiential attachment should be recognized not merely as a psychological phenomenon to be explored, but as a cornerstone of human functioning, central to mental and behavioral health, social well-being, and justice. Addressing its complexities offers a path toward more nuanced interventions, fostering psychological flexibility, emotional well-being, and a deeper understanding of what it means to thrive as individuals and communities.

## CRediT authorship contribution statement

**Joseph Ciarrochi:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization. **Steven C. Hayes:** Writing – review & editing, Writing – original draft. **Domonkos File:** Writing – review & editing, Writing – original draft. **Kirk Warren Brown:** Writing – review & editing, Writing – original draft. **Keong Yap:** Writing – review & editing, Writing – original draft. **Madeleine I. Fraser:** Writing – review & editing, Writing – original draft. **Cristobal Hernandez:** Writing – review & editing, Writing – original draft. **Diana Hill:** Writing – review & editing, Writing – original draft. **Louise Hayes:** Writing – review & editing, Writing – original draft. **Clarissa W. Ong:** Writing – review & editing, Writing – original draft. **Baljinder Sahdra:** Writing – review & editing, Writing – original draft.

## Declaration of competing interest

Given their role as Editor-in-Chief Dr. Baljinder K. Sahdra, and their roles as Editorial Board members Cristobal Hernandez and Clarissa W. Ong did not have any involvement in the peer-review of this article. All other authors have no conflicts of interest to disclose.

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