



Стаття та будь-який пов'язаний з нею опублікований матеріал поширюється за ліцензією Creative Commons Attribution License (CC BY 4.0).
The article and any related published material are licensed under the Creative Commons Attribution License (CC BY 4.0).

UDC 159.9.018.2:616.89-008.44

DOI: <https://doi.org/10.17721/2523-4064.2026/14-15/15>

Davyd TSYBENKO, MD, PhD Student

ORCID ID: 0009-0002-9528-0975

e-mail: cibenkodavid@gmail.com

Taras Shevchenko National University of Kyiv, Kyiv, Ukraine

PHENOMENOLOGICAL EXPLICATION OF INTEROCEPTIVE EXPERIENCE IN TRAUMA-FOCUSED ACCEPTANCE AND COMMITMENT THERAPY: CONCEPTS, PRINCIPLES, AND RESEARCH METHODOLOGY

Background. *The perception of internal bodily states (interoception) serves as a fundamental mechanism of traumatic experience. In clinical practice, this experience often remains unarticulated and phenomenologically inaccessible due to a deficit in the skill of tacting private events. This creates a fundamental obstacle to the integration of traumatic experience within Trauma-Focused Acceptance and Commitment Therapy (TF-ACT). The study aims to conceptualize the philosophical and methodological dimensions of phenomenological explication as a pragmatic tool for stimulus discrimination in TF-ACT.*

Methods. *The research relies on a comprehensive integration of Contextual Behavioral Science (CBS) and phenomenological methods. Historical and philosophical reconstruction is applied to overcome Cartesian dualism through the 4E cognition paradigm (enactivism). To analyze the transformation of interoceptive experience, the frameworks of Relational Frame Theory (RFT) and micro-phenomenological analysis (EASE scale) are utilized.*

Results. *The complementarity of descriptive contextualism (phenomenology) and functional contextualism (ACT) is demonstrated. Trauma is conceptualized as an ontological rupture in the mode of "being-in-the-world" and a total disruption of stimulus control, where interoceptive signals acquire aversive functions through arbitrarily applied relational framing. It is substantiated that under conditions of continuous traumatic stress (the military context of Ukraine), phenomenological explication acts as a necessary epistemological bridge that translates undifferentiated somatic terror into a structured phenomenon, enabling the processes of defusion and acceptance.*

Conclusions. *Maintaining authentic contact with embodiment requires the integration of micro-phenomenological interviewing into TF-ACT protocols. Phenomenological explication does not contradict radical behaviorism but serves as an instrument of behavioral shaping to establish precise stimulus control over private events, ensuring psychological flexibility under conditions of objective existential threat.*

Keywords: *enactivism, experiential avoidance, interoception, contextual behavioral science, post-traumatic stress disorder, relational frame theory.*

Introduction

Traumatic experience is deeply rooted in embodiment, where the perception of internal bodily states, namely interoception, often becomes the primary link in emotional dysregulation. Contemporary clinical research increasingly views interoceptive impairment as a fundamental mechanism of dissociation and the breakdown of self-regulation. This is especially true for combatants and civilians who have survived hostilities: their behavioral repertoire often lacks the skill of tacting (tact response, Skinner, 1957) their own private events. From the perspective of verbal behavior analysis, shaping tacts for interoceptive stimuli is objectively complicated by the fact that the verbal community does not have direct access to them. As a result, intense bodily experiences of trauma remain unarticulated or fall under the inaccurate stimulus control of generalized anxiety or experiential avoidance reactions.

Trauma-Focused Acceptance and Commitment Therapy (TF-ACT) offers a flexible, evidence-based framework for working with post-traumatic conditions, relying on the philosophy of functional contextualism and Relational Frame Theory (RFT). However, in real clinical practice, therapists regularly encounter the consequences of the described deficit: the client is simply unable to tact their internal state. During moments of peak somatic arousal, classic ACT metaphors may prove insufficient, as there is no precise recognition (discrimination) of the bodily stimuli with which the client must establish contact. Inaccurate stimulus discrimination leads to a deterioration of the therapeutic process and an inability to understand the context and consequences related to the stimulus (Joshi, Aupperle, Khalsa, 2023). This condition requires a methodologically organized approach even prior to the standard processes of developing psychological flexibility.

It is precisely here that the phenomenological explication of bodily experience becomes highly relevant. We view it not as a mentalistic attempt to "interpret" the symptom, but as a pragmatic, highly structured procedure that creates conditions for establishing precise stimulus control by the client's tact responses over their own interoceptive events. Unlike purely philosophical speculations, contemporary clinical phenomenology offers a rigorous method of explicating experience "as it is given," without imposing causal models on it. It is important to emphasize: in our study, the phenomenological perspective is not an alternative to ACT and does not encroach upon the conceptual apparatus of radical behaviorism. Its task is purely auxiliary — to provide a tool for shaping the skill of tacting private events, leaving functional analysis as the primary driving force of therapy.

Results

Historically, phenomenology and radical behaviorism were perceived as antagonists in scientific circles, as phenomenology focused on the subjective first-person experience of lived experience (Merleau-Ponty, 1945/2012), while behaviorism observed and recorded the individual's behavior from a third-person perspective (Skinner, 1974). For phenomenology, the exploration of the very essence of experience as it is in the world is of primary importance. At the

© Tsybenko Davyd, 2026

same time, the behaviorist has a clear goal in studying behavior: to be able to predict and influence behavior in the future, resulting in effective interventions in the individual's behavior to achieve specific goals.

However, modern philosophy of science and Contextual Behavioral Science reveal their deep complementarity. Phenomenological explication in our study functions purely as a method of descriptive contextualism (Hayes, 1993). It aims at the methodically organized structuring of lived experience and clarifying exactly how private events are given to the subject. Instead of interpreting the content of the symptom, phenomenological explication performs a pragmatic function: it acts as a procedure for stimulus discrimination. Breaking down chaotic bodily experience into clear, describable phenomena, this method creates the prerequisites for shaping precise tact responses (contact responses) in the client to their own internal states (Skinner, 1957; Villatte, Villatte, & Hayes, 2016). This perfectly aligns with the functional contextualism of TF-ACT, which requires these clarified input conditions (precise stimulus control) for the subsequent alteration of behavioral functions. In order to avoid methodological confusion, there is a need for a clear understanding of the key concepts in our work and their role in the given research framework.

Phenomenology is a rigorous methodological approach to the study of consciousness and experience, which favorably distinguishes this philosophical school from others and gives it special significance in experimental studies of human experience (Zahavi, 2014). The primary focus of phenomenology is understanding exactly how experience is given to the subject, and exactly how the subject lives through the experience here-and-now (Petitmengin et al., 2019). This implies a rejection of the biological, neurobiological, or psychological reductionism of human experience. Phenomenology refuses to assume a mere explanatory function of experience; instead, it clearly elucidates the living-through of the experience as such (Merleau-Ponty, 1945/2012).

Within the scope of our research, phenomenology serves as the philosophical foundation for working with embodiment—with the internal experience of the individual in their body. Importantly, we study bodily experience at the moment of conversation with the individual, at the exact moment the individual is living through this experience. That is, right during the session, when the client is in front of us, we have an advantageous situation where phenomenology isolates the individual's experience just as it is. In doing so, phenomenology enables the individual to learn to experience their experience as it is, separating it from the verbal constructions that the brain builds in accordance with Relational Frame Theory (Hayes, Barnes-Holmes, & Roche, 2001). Thus, by living through the experience as it is, the individual already at this stage defuses from the meanings ascribed to this experience, which may directly share common stimuli with the traumatic experience. Consequently, the individual, in experiencing the experience as such, stops falling into the trap of arbitrary relational framing and builds a behavioral pattern of accepting their own experience (Hayes, Strosahl, & Wilson, 2011).

Enactivism is a continuation of phenomenological embodiment. This approach provides an understanding of how experience is formed through the interaction of the body and the environment. Enactivism indicates that mental states cannot be reduced merely to the brain's internal representations, since the brain itself, the body, and the environment form a single, constantly dynamic system. Perception of the world is not a passive ability to "film the world on a video camera" and save the recording onto the brain's "hard drive". Perception of the world is a process of active sense-making carried out by the individual for the sake of survival and adaptation. Through their actions, the individual enacts meaning within the environment of the world.

While experiencing the aftermath of a traumatic event, both the perception of the fabric of the world and the very experience of being-in-the-world undergo transformation. As a consequence of adaptation, the world begins to be enacted as a threatening environment, and the body itself becomes a threatening environment for the individual, since the perception of interoceptive signals within the body is interpreted as a return to the time of the trauma.

The enactive approach in psychotherapy can provide a robust conceptual framework for a better understanding of the individual's adaptation—for the individuals themselves in therapy, as well as for the researcher, psychotherapist, or mental health care provider.

We define the term "explication" as the unfolding and structuring of interoceptive experience. Phenomenological explication consists in the methodical unfolding of bodily experience exactly as it is lived by the individual in the here-and-now moment, aiming for greater accuracy, breadth, and depth of understanding, without reduction to causal models or excessive mentalization.

Phenomenological explication possesses a significant advantage over standard mechanistic approaches to working with psychopathology and researching interoceptive experience, as this approach does not reduce the individual's perception of the world to a "camera with a hard drive" model: where a camera records experience onto a hard drive, and the processing of information and creation of meaning take place within the hard drive itself. This concept, which was heavily utilized following the "cognitive revolution" by cognitive psychologists and neurocognitivists, is increasingly facing criticism today. The "brain-as-computer" metaphor currently fails to clearly, broadly, and accurately (or at least sufficiently) explain the embodied interoceptive experience of the individual. Such a metaphor can be misleading, as it is not purely biological or something that can be "seen"; it can lead to a false understanding of the brain's biology as a mere "calculator" (Brette, 2022). Ryan and Gallagher point out that we cannot reduce everything to cognitive function—that is, to the manipulation of internal information; rather, it is more effective to look at the dynamic brain-body-environment system (Ryan, Gallagher, 2020).

It is also important to note that we do not use the term "explication" as a psychodynamic interpretation of hidden motives behind emotions or hidden motives that "provoke" emotions. The task of phenomenological explication is the accurate description of experience strictly within its phenomenological structure, preserving the primary givenness of the emotional and bodily experience as it is. We do not use the term "experiencing" to denote cognition or a cognitive act, but rather the experiencing-of-the-experience "as it is." Awareness of this experience entails the ability to notice, name, describe, and interact with it.

The explication of bodily experience consists, as previously stated, in the accuracy, breadth, and depth of the description of the individual's interoceptive bodily experience. In traumatic experience (PTSD, C-PTSD), internal bodily sensations—such as tension, chest tightness, numbness, and dissociative alienation—can merge into a single undifferentiated background that chronically emerges in the individual, or the individual exists within this background constantly, without pause. This serves as an aversive stimulus that assumes stimulus control over behavior, leading to

maladaptive avoidance responses to this experience. In turn, under such conditions, this experience cannot be understood by the individual, thus creating a self-reinforcing loop: each encounter with aversive stimuli prompts avoidance, and avoidance deprives the individual of the experience of living through and understanding these interoceptive sensations, which reinforces this aversive experience and generalizes it to other areas of the person's life.

Phenomenological explication helps to notice, unfold, and describe the living-through of this experience using semi-structured interviews, for example, the EASE (Parnas et al., 2005), or through clear and structured phenomena. We describe this experience using phenomena such as localization, temperature, intensity, and spatial sensations (Petitmengin, Remillieux, & Valenzuela-Moguillansky, 2019).

We fundamentally distinguish between two levels of understanding interoception: as a purely biological process of processing internal signals, and interoceptive experience as a phenomenological and behavioral reality—that is, how states of tension, numbness, or emptiness are experienced in the moment. Research at the neurobiological level may well explain the topography of symptoms in traumatic experience, but it does not explain the human in-the-moment living of this experience, nor does it explain how a person can understand this experience, describe it, and tact it (Skinner, 1957). In CBS terms, interoceptive experience is a continuous stream of private stimuli that possess no fixed psychological meaning outside the individual's learning history.

Psychotherapeutic practice deals precisely with the individual's direct bodily experience: knowledge at the neurobiological or neurophysiological levels is useful, but insufficient for working at the "here-and-now" level (Petitmengin, Remillieux, & Valenzuela-Moguillansky, 2019). Meanwhile, the bodily experience of surviving trauma is direct learning through interaction with the fabric of the world, a direct experiencing of the world-as-such within the conditions of war and the specific context of Ukrainian culture (Ratcliffe, 2022). For a client with traumatic experience, the experiencing of such sensations ceases to be "transparent"—they feel them as something dangerous and alien, and thus the world itself becomes dangerous and aversive for them. This leads to pronounced avoidance of these sensations: attempts to "not feel" this experience, and attempts to get rid of it through experiential avoidance, distraction, substance use, or impulsive actions (Hayes, Strosahl, & Wilson, 2011).

Bodily stimuli (tension, changes in heartbeat, numbness) are capable of acquiring the functions of powerful aversive stimuli through the mechanisms of transformation of stimulus functions (Dougher, Hamilton, Fink, & Harrington, 2007). When a person loses the ability to flexibly differentiate them, any intense internal signal instantly triggers rigid relational frames of threat, turning the body into a source of permanent danger.

If we examine trauma experience according to M. Sidman (Sidman, 1994), we can observe the regularity of traumatic experience, which manifests in the body and emerges as a generalized response of stimulus equivalence. The stimulus equivalent lies in the fact that the direct traumatic experience—Stimulus A (e.g., the sound of an explosion, a blast wave)—transfers to a neutral Stimulus B (the smell of diesel fuel, a loud noise, specific bodily sensations similar to those in the traumatic situation), and a symbolic Stimulus C (thoughts like "I am going to die now," certain trigger words). This creates an entire "explosion" of equivalent stimuli that transform into an equivalence class of traumatic experience, encompassing not only memories, sounds, and words, but also interoceptive sensations, which are interpreted as dangerous, incomprehensible, and acting as a reaction to danger.

According to M. Sidman (Sidman, 1994), reflexivity (identity) occurs when stimulus A equals stimulus A itself. That is, stimulus A (the past)—a flashback or a dissociative state—is experienced as stimulus A (the present)—"I am in danger." And the reverse process: if an individual undergoes an interoceptive experience that resembles fear in the here-and-now, it means they are in danger and simultaneously located "there-and-then." For example, during an explosion, an individual registered a feeling of heaviness in the chest from the blast wave. Now, when they feel heaviness in the chest in the here-and-now, even in a safe space, it becomes equivalent to the blast wave; therefore, the individual feels in danger. Symmetry between the stimuli has emerged.

Transitivity also plays an important role in traumatic experience. If an individual survived a blast wave to the chest, and now, when a feeling of pressure behind the sternum arises—for example, a feeling of slight discomfort in the diaphragm while running—the individual might stop running and begin to avoid it. This occurs because the given bodily sensation and the very context of running acquire (through the transformation of stimulus functions) the aversive properties of the traumatic experience (Dougher, Hamilton, Fink, & Harrington, 2007; Hayes, Barnes-Holmes, & Roche, 2001).

Interoceptive experience can be defined as a subjectively lived aspect of the organism's internal state, private and phenomenologically given as an act-in-context (Pepper, 1942; Hayes, 1993), which is characterized by specific parameters, such as localization, intensity, and dynamics (Petitmengin, Remillieux, & Valenzuela-Moguillansky, 2019), and is capable of acquiring functions of stimulus control and relational framing, and directly organizes the individual's behavior and way of being-in-the-world (Hayes, Barnes-Holmes, & Roche, 2001; Fuchs, 2020).

We conceptually distinguish between modalities of experience and direct sensory experience. Modalities of experience (fear, disgust, alienation) act as phenomena that directly organize the general mode of "being-in-the-world." Conversely, sensory markers or bodily sensations (tightness, numbness, nausea, tachycardia, emptiness) are the basic elements through which these phenomena are explicated at the bodily level. Clinical practice indicates that individuals with traumatic experience rarely possess sufficient emotional and interoceptive literacy to clearly differentiate and understand their states at the level of phenomena (Lazzarelli et al., 2024). Usually, the client operates with a limited set of diffuse definitions that they assign to their sensations (for example, "everything is tight in my chest," "I don't feel myself," "I don't understand what's inside," or "it's as if I feel nothing"), which points to a pronounced deficit in the skill of tacting private events and a dissociative detachment from the body (Joshi, Aupperle, & Khalsa, 2023; Skinner, 1957).

The ability to clearly recognize and explicate the structural elements of an emotional response (particularly interoceptive experience) directly correlates with a high level of emotion regulation. Conversely, in traumatic experience, the impairment of interoceptive awareness is fundamentally associated with emotion regulation difficulties. Contemporary systematic reviews confirm that high emotional awareness is a predictor of the effective ability to regulate the affective sphere, whereas

a deficit in the skill of understanding and tacting one's own emotional experience leads to pronounced emotional dysregulation (Lazzarelli et al., 2024; Leech et al., 2024).

Within the scope of our study, the term "traumatic experience" is conceptualized as a clinically established diagnosis of post-traumatic stress disorder (PTSD) or complex PTSD (C-PTSD) in accordance with the current diagnostic criteria of the ICD-11 or DSM-5-TR. Contemporary clinical classifications phenomenologically describe trauma through basic symptom clusters: intrusions (re-experiencing), hyperarousal, and avoidance (American Psychiatric Association, 2022). Specifically, according to the International Classification of Diseases 11th Revision (ICD-11, code 6B40), PTSD is defined as a disorder that may develop following exposure to an event or series of events of an extremely threatening or horrific nature. According to the criteria, the disorder is characterized by the mandatory presence of all the following clinical features:

1. Re-experiencing the traumatic event or events in the present in the form of vivid intrusive memories, flashbacks, or horrific nightmares. Re-experiencing may occur via one or multiple sensory modalities and is typically accompanied by strong or overwhelming emotions, particularly fear or horror, and pronounced physical (bodily) sensations;
2. Avoidance of thoughts and memories of the event or events, or avoidance of activities, situations, or people reminiscent of the event or events;
3. A persistent perception of heightened current threat, for example, as indicated by hypervigilance or an enhanced startle reaction to stimuli such as unexpected loud noises.

The symptoms persist for at least several weeks and cause significant impairment in personal, family, social, educational, occupational, or other important areas of functioning (World Health Organization, 2019).

Complex post-traumatic stress disorder (C-PTSD) according to ICD-11 (code 6B41) is defined as a disorder that arises following exposure to a chronic or repeated traumatic event (or series of events) from which escape is difficult or impossible. Unlike classic PTSD, C-PTSD develops much more frequently as a result of prolonged exposure to traumatic factors, such as prolonged abuse, captivity, or continuous combat operations. The diagnosis encompasses all the core symptoms of classic PTSD (6B40) and is additionally accompanied by profound and persistent disturbances in self-organization.

The main clinical differential criteria for C-PTSD in ICD-11 (6B41) are divided into two blocks:

1. Classic PTSD symptoms (present in both disorders):

Re-experiencing: intrusive memories, flashbacks, and nightmares, during which the trauma is experienced as a present-time event. Avoidance: active avoidance of thoughts, memories, places, or people that act as triggers for the traumatic experience. Sense of current threat (hyperarousal): permanent hypervigilance, enhanced startle reaction, and fright (World Health Organization, 2019).

2. Additional C-PTSD symptoms (disturbances in self-organization): Affective dysregulation: severe and persistent difficulties in managing affective reactions, manifesting through outbursts of anger, depressive states, suicidal thoughts, or emotional numbing. Negative self-concept: persistent beliefs about oneself as diminished, defeated, or worthless, accompanied by deep and paralyzing feelings of shame and guilt. Interpersonal difficulties: persistent difficulties in establishing and maintaining relationships, as well as an inability to feel emotional closeness with other people (World Health Organization, 2019).

According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR), post-traumatic stress disorder (code 309.81) is defined through the following diagnostic criteria (American Psychiatric Association, 2022):

Criterion A (Traumatic event): Direct experience, witnessing the event in person, or learning about the death/threat to life, serious injury, or sexual violence involving a close person.

Criterion B (Intrusion symptoms — minimum 1): Intrusive memories, nightmares, flashbacks (sense of re-experiencing), psychological or physiological distress (discomfort) upon exposure to reminders of the event.

Criterion C (Avoidance — minimum 1): Avoidance of thoughts and feelings related to the event, or avoidance of external reminders (places, people, conversations, circumstances) of it.

Criterion D (Negative alterations in cognitions and mood — minimum 2): Inability to recall important details of the trauma, persistent exaggerated negative beliefs about oneself or the world, distorted sense of blame, persistent negative emotions (fear, anger, shame), detachment from other people.

Criterion E (Alterations in arousal and reactivity — minimum 2): Irritability, reckless or self-destructive behavior, hypervigilance, exaggerated startle response, problems with concentration, sleep disturbance.

Criterion F (Duration): Symptoms (Criteria B, C, D, and E) last for more than 1 month.

Criterion G (Functional significance): The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

From an enactive and functional perspective, trauma is a radical rupture of the very mode of being-in-the-world, where trust in one's own interoceptive signals is destroyed (Ratcliffe, 2022).

The body, which normally serves as a transparent medium of interaction with the environment, becomes objectified and transforms into an unpredictable enemy (Fuchs, 2020). Through mechanisms of respondent (classical) conditioning, interoceptive sensations become paired with the traumatic context. Lacking the skills to accurately tact these states (Skinner, 1957; Villatte, Villatte, & Hayes, 2016), the client resorts to experiential avoidance. This generalized avoidance brings short-term relief but strategically locks the system in a state of hypervigilance or, at the opposite pole, leads to a dissociative disconnection of access to private events. The time horizon of what is possible is reduced to survival in the present moment, which is a direct consequence of psychological inflexibility (Hayes, Strosahl, & Wilson, 2011).

As noted above, interoceptive experience acts as a stimulus capable of both exerting stimulus control and falling under the control of other stimuli, acquiring their functions through the mechanisms of reflexivity, symmetry, and transitivity according to M. Sidman (Sidman, 1994). From the perspective of Relational Frame Theory (RFT), a deep understanding of stimulus control requires relying on basic concepts such as mutual entailment, combinatorial entailment, and the transformation of stimulus functions. These concepts conceptually grew out of Sidman's equivalence properties but were

significantly expanded by contextual behavioral scientists to translate experimental data into clinical practice, particularly within Acceptance and Commitment Therapy (ACT) (Törneke, 2010). It is precisely due to language and arbitrarily applicable relational framing that humans are able to connect stimuli into a single coherent semantic network—an ability that is a unique evolutionary feature of the human species and is not found (at least in such a form) in any other organisms (Hayes, Barnes-Holmes, & Roche, 2001).

First of all, to understand the mechanisms of stimulus transformation, it is necessary to clearly distinguish between two fundamental concepts: non-arbitrary and arbitrary relational framing (Hayes, Barnes-Holmes, & Roche, 2001). Non-arbitrary relational framing (or responding to formal properties) is the establishment of relations between two or more stimuli based exclusively on their objective physical characteristics. This type of responding is inherent to almost all living organisms and serves as a basic survival tool. For example, a cockroach evades light, seeking the darkest place to hide, and a dog is able to differentiate objects and find the longest stick if the owner reinforces such behavior during training. Thus, in these cases, the organism's behavior is controlled by explicitly present, physically accessible stimulus properties (size, color intensity, temperature, etc.) that do not depend on the social or verbal context (Törneke, 2010).

Conversely, arbitrarily applicable relational responding (arbitrary relational framing) is the establishment of relations between stimuli that do not have a clear physical common denominator, or whose physical properties are insufficient for a direct associative link. Equivalence here is determined not by form, but by the contextually conditioned function of these stimuli (Hayes, Barnes-Holmes, & Roche, 2001). A fundamental property of such framing is mutual entailment. It means that if, in a given context, stimulus A is related to stimulus B ($A \rightarrow B$), then automatically, without additional training, a derived relation emerges: stimulus B is related to stimulus A ($B \rightarrow A$). In the context of trauma, this looks as follows: if stimulus A (the traumatic impact of a blast wave to the chest) feels the same as stimulus B (physiological chest tightness during an intense run), mutual entailment arises between them. The bidirectionality of these stimuli means that, while feeling ordinary chest tightness during a run (stimulus B), the individual in the "here-and-now" automatically begins to experience the state of threat from "there-and-then" (stimulus A) (Villatte, Villatte, & Hayes, 2016).

The next step is combinatorial entailment, which is logically denoted as follows: if $A \rightarrow B$, and $B \rightarrow C$, then a derived relation $A \rightarrow C$ emerges (and correspondingly $C \rightarrow A$)—this is the mutual combinatorial entailment of stimuli (Hayes, Barnes-Holmes, & Roche, 2001). If stimulus A (the impact of a blast wave to the chest) is perceived the same as stimulus B (physiological chest tightness during a run), and stimulus B, in turn, is associated with stimulus C (active physical exercises, a treadmill), then the very location where active physical exercises take place (stimulus C) begins to signify danger. The chain of arbitrary relational framing expands continuously according to the context in which the individual has developed and lives. Thus, a stimulus D and other stimuli can similarly be bidirectionally added to stimulus C. Hence, we observe how, in this case, neutral stimuli merge into a single equivalent frame of threat (Dougher, Hamilton, Fink, & Harrington, 2007).

Let us take another clinical example. Stimulus A is sexual violence committed against a woman by a Russian occupier. Stimulus B is the smell of stale male sweat (which was present during the violence and to which a fear response was conditioned). Stimulus C is public transport, where the woman suddenly smelled a similar odor. What we observe in this example is mutual and combinatorial entailment, leading to a powerful transformation of stimulus functions. Public transport (stimulus C) and the smell, which until then had been absolutely neutral or safe, acquired the function of an aversive stimulus through the relational network. This instantly brings the woman back to the traumatic event (stimulus A), eliciting an intense feeling of fear and danger (Törneke, 2010; Villatte, Villatte, & Hayes, 2016).

In this clinical example, we observe the simultaneous action of respondent, operant, and relational conditioning. At the level of respondent (classical) conditioning, a neutral stimulus (NS) was paired with an unconditioned stimulus of life threat, which elicited an unconditioned response of terror. As a result of this pairing, the NS (the smell) transformed into a conditioned stimulus (CS), which now independently elicits a conditioned response (CR) of intense fear. Operant conditioning, in turn, manifests in the formation of a persistent pattern of experiential avoidance. The woman begins to avoid any places (for example, public transport) where she might encounter this smell, as such avoidance behavior is negatively reinforced—it brings a temporary reduction in anxiety and distress, which strategically narrows her life space and entrenches the traumatic experience (Sidman, 2001).

Table 1

Functional analysis of avoidance behavior in PTSD (ABC Model)

Antecedent	Behavior	Consequence
Smell of sweat, fear, intrusive bodily sensations, and memories.	Escape, attempts to avoid places where she could potentially encounter such a smell.	Negative reinforcement (avoidance, reduction of threat, improvement in state when escaping such a place, reduction of unwanted sensations).

As can be seen, operant behavior within the ABC model demonstrates a clear contingency: it is governed by antecedents (learning history and current context) and maintained by consequences (reinforcement) (Ramnerö & Törneke, 2008). This exhaustively explains the logic behind the formation of a person's reactions while experiencing the aftermath of a traumatic event. From the perspective of functional contextualism, the functionality of such behavior itself (for example, avoidance for the sake of short-term survival) is absolutely logical and is not questioned. Instead, the main task in psychotherapy is to explore the pragmatic effectiveness, or "workability," of this behavior—that is, the extent to which it helps the client build a valued and meaningful life in the long term (Hayes, Strosahl, & Wilson, 2011).

The following clinical example illustrates the development of reactions in the same client who survived the traumatic experience of sexual violence:

Table 2

Functional analysis of avoidance behavior (ABC Model) in the context of intimacy

Antecedent	Behavior	Consequence
Close physical contact with a partner, initiation of sexual intercourse → feeling of fear.	Refusal to continue sexual intercourse, subsequent avoidance of sexual intercourse with the partner.	Negative reinforcement (refusal of sexual intercourse provides relief from fear).

In this case, we observe how fear, which arose as an unconditioned response to a threat during the violence, became rigidly paired with physiological sexual arousal and the very context of intimacy with a partner through classical (respondent) conditioning. By avoiding such intimacy, the client obtains short-term relief, as she avoids encountering intrusive horrific memories of the past and does not re-experience them "here-and-now" during the sexual act. However, such flight and avoidance behavior is operantly reinforced (through the mechanism of negative reinforcement). Consequently, it is highly likely that this client will systematically avoid sexual contacts in the future, which will lead to the chronicization of symptoms and the narrowing of her interpersonal functioning (Ramnerö & Törneke, 2008).

Although we possess a thorough theoretical explanation at the level of classical (respondent) and operant conditioning, this toolkit alone proves insufficient for a complete understanding of the phenomenology of exactly how the client repeatedly re-experiences the traumatic event. Traditional models are unable to exhaustively explain the generalization of fear that occurs not only at the level of direct bodily contact but also at the verbal/symbolic level (Hayes, Barnes-Holmes, & Roche, 2001). Specifically, neutral stimuli such as the words "sex" or "intimacy" acquire powerful aversive properties on their own through the mechanisms of arbitrary relational framing and the transformation of stimulus functions. The sound or even the thought of these words instantly actualizes the relational network of traumatic memories of the past and the experience of unsuccessful attempts at intimacy with a partner, eliciting intense avoidance purely at the verbal level (Villatte, Villatte, & Hayes, 2016).

Relational Frame Theory (RFT) explains this phenomenon through the basic processes of mutual entailment, combinatorial entailment, and the transformation of stimulus functions (Hayes, Barnes-Holmes, & Roche, 2001). Let us consider this with an example: Stimulus A is the direct traumatic situation of violence; Stimulus B is the words "sex" or "intimacy," which are conceptually related to Stimulus A. As a result of this relational link, a persistent transformation of the stimulus functions of B occurs. The word "intimacy" no longer holds its initial attractive (appetitive) properties or associations with pleasant memories. Instead, it has completely acquired the aversive functions of stimulus A, namely, the capacity to elicit intense fear, a feeling of a direct threat to life, and an assault on personal dignity.

This concept is illustrated by the study conducted by Michael Dougher and colleagues (Dougher et al., 2007). The researchers guided a group of volunteers through several phases:

1. Equivalence formation: Participants were trained to treat three neutral symbols (e.g., geometric figures) as equivalent, establishing the relation $A = B = C$.
2. Fear conditioning: Stimulus A was paired with a mild but aversive electric shock. The subjects developed a natural physiological fear response (increased skin conductance) to stimulus A.
3. Transformation of function: Participants were presented with stimuli B and C, which had never been paired with the shock.

The results demonstrated that stimuli B and C also acquired fear functions. Further experiments showed an amplification of the response if the relational frame was established based on a relation of comparison: $A < B < C$. In this case, stimuli B and C elicited even stronger fear responses than stimulus A, which was directly paired with the electric shock.

M. Dougher points out that symbolic relations can be much stronger than real "here-and-now" experience. The individual becomes insensitive to the present context and is governed by verbally constructed rules. These are based on past experience or indirect learning through deictic framing — the construction of one's "Self" through the perspective of others (I-here-now from the perspective of the One-who-is-before-me).

The analysis of traumatic experience in the conditions of the Russian-Ukrainian war requires special epistemological caution. Currently, the war is not a retrospective event localized in the past; it forms a permanent ontological background. In this context, hypervigilance and the continuous monitoring of interoceptive signals cannot be perceived as a purely pathological experience. In terms of behavioral science, this is a functionally justified reaction that adequately reflects the objective contingencies of an extremely dangerous environment.

The problem arises when these adaptive mechanisms lose their flexibility and begin to be governed by rigid verbal rules ("I will never be safe," "my body will betray me"), which blocks the individual's capacity for value-oriented actions. That is why the therapeutic target in working with war trauma does not lie in the realm of symptom reduction or the "erasure" of memory. On the contrary, the main task is to integrate this crucial past experience, restoring the capacity for flexible contact with the body in the "here-and-now" moment. We strive for the individual to be able to recognize the "echoes" of trauma in their bodily states without losing connection with the present moment (Walser & Westrup, 2007). This allows for the expansion of the behavioral repertoire to carry out valued actions even when the external threat remains real and the state of war continues.

Since the reactions to danger in an individual experiencing the reality of war are often evolutionarily adaptive, our task is to bring awareness to these automatic processes. At the level of phenomenological description, we aim to restore the client's capacity for holistic "being-in-the-world" in conjunction with their own sensations and emotions. This enables the client to adaptively differentiate internal and external stimuli along a "threat/safety" scale, rather than being governed by rigid generalized reactions.

Over the past five years, many changes have occurred in the treatment protocols for post-traumatic stress disorder (PTSD), particularly regarding the hierarchy of first- and second-line psychotherapeutic interventions. Currently, the American Psychological Association (APA) identifies three levels of evidence for PTSD treatment (APA, 2017): First line: Cognitive Behavioral Therapy (CBT), Cognitive Processing Therapy (CPT), and Prolonged Exposure (PE). Second line:

Cognitive Therapy (CT), Eye Movement Desensitization and Reprocessing (EMDR), and Narrative Exposure Therapy (NET). Third line: pharmacological therapy. At the same time, the American Psychiatric Association (also APA) notes in its clinical guidelines that the first line of care for PTSD is specifically trauma-focused approaches in psychotherapy, while pharmacological care is considered the second line. Among the recommended interventions, they highlight: Cognitive Processing Therapy, Prolonged Exposure, Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), EMDR, and group therapy (APA, 2017).

In the psychotherapeutic community, the question has long been raised: when a psychotherapist speaks of CBT, "which CBT exactly do you mean?". CBT is a large umbrella of methods, which includes Prolonged Exposure, Narrative Exposure Therapy, Cognitive Processing Therapy, A. Beck's Cognitive Therapy, and others. In recent years, Acceptance and Commitment Therapy has seen significant development; it falls under the CBT umbrella and actively influences the development of the entire CBT community as a whole, particularly regarding the transition to process-based CBT (Hayes, Hofmann, Ciarrochi, 2020). Hofmann, a CBT-oriented researcher who previously criticized ACT for its pragmatic approach to cognitions, now conversely shares the idea of a functional-contextual approach to language and psychopathology. Hayes and Hofmann call for a shift from syndrome-based to process-based approaches in CBT.

This does not alter the idea that CBT is the "gold standard" intervention for many mental disorders, but ACT has begun to actively influence the restructuring of standard CBT, as well as other approaches within the CBT umbrella. Generally, CBT implies that the given therapy possesses protocols oriented towards syndromes. This direction is currently changing rapidly; a focus on processes is forming within the broader CBT model. Process-based therapy entails the creation of an idiographic functional analysis guided by models that possess a coherent set of processes of change. As a result, a new evidence-based model in psychotherapy is emerging, which alters the perspective on all other evidence-based psychotherapeutic interventions (Hayes, Hofmann, et al., 2022).

ACT is a process-based therapy that is also a part of contextual behavioral science (CBS)—an active wing of evolutionary science and behavior analysis. It is grounded in radical behaviorism; that is, unlike methodological behaviorism, it considers cognitions and emotions as internal behavior within the context of the environment. ACT is also a functional-contextual therapy rooted in William James's pragmatism and the development of Stephen Pepper's contextualism, which posited that the truth criterion for contextualism is "successful working" (Pepper, 1942). Descriptive contextualism seeks a personal appreciation of the participant from the whole (Hayes, 1993). In contrast, the analytic goal of functional contextualism is the prediction and influence of behavior with precision, scope, and depth. From this perspective, since its inception, ACT has viewed psychopathology as behavior-in-action and takes a functional approach to psychopathology, whereas other types of psychotherapy were syndrome-oriented.

ACT is a part of process-based CBT and can be recommended as a first-line intervention for PTSD as an evidence-based therapy. Recent studies show that ACT reduces PTSD symptoms (Mezyed, Abed, Zarga, 2025). Improves emotion regulation and post-traumatic growth (Sumner, Keenan-Miller, et al., 2025). Confirms the effectiveness of ACT interventions for clients reporting trauma-related problems (Rowe-Johnson, Browning, Scott, et al., 2025). A comparative study between ACT and TF-CBT (Ahmadi et al., 2024) showed no significant difference between these therapies in their effectiveness at reducing post-traumatic symptoms. ACT and TF-CBT were equally effective in reducing intrusive symptoms compared to a control group. This is not surprising, as ACT falls under the CBT umbrella.

Data from case reports (Mezyed et al., 2025) indicate that TF-ACT is a promising therapy in the treatment of complex post-traumatic stress disorder. It is important to clarify that ACT is not exclusively a protocol-based therapy. Despite the existence of developed protocols and numerous empirical studies of their effectiveness, the foundational idea of the method lies in a transdiagnostic approach. This paradigm offers an alternative view on psychotraumatology: instead of focusing on specific symptoms or syndromes, attention is focused on the universal processes that drive the development of psychopathology or, conversely, promote the enhancement of psychological flexibility (Hayes, Strosahl, & Wilson, 2011). This concept is based on the principles of radical behaviorism and the pragmatic truth criterion (functional contextualism), where the effectiveness of an intervention is evaluated by its ability to secure useful action in a specific context, as discussed above.

ACT belongs to the "third wave" of cognitive behavioral therapy and demonstrates high effectiveness in the reduction of traumatic symptomatology. However, it is more accurate to define this approach not only as trauma-focused, but primarily as a trauma-informed therapy. This is due to its functional-contextual foundation: the primary goal of the intervention is not the direct reduction of symptom intensity, but the development of the individual's psychological flexibility. Empirical data confirm that thanks to the transdiagnostic mechanism of action, ACT positively influences comorbid syndromal disorders, regardless of whether they were the direct targets of the therapeutic plan (Meyer et al., 2018).

In the phenomenological perspective, trauma is conceptualized not merely as an isolated event that leads to the activation of adaptive "survival" functions, but also as a radical alteration at the ontological level of "being-in-the-world," where the fabric of the world becomes hyper-dangerous, extending the danger not only to the traumatic event itself, but to the world as a whole. Drawing on the classical phenomenology of Merleau-Ponty (1945/2012) and contemporary enactive approaches (Gallagher, 2005; Zahavi, 2014; Fuchs, 2020; Ratcliffe, 2022), we conceptualize traumatic experience through the dimensions of embodiment and enactivism.

According to M. Merleau-Ponty and, we exist in the world with a sense of an "intentional arc" -- a certain pre-reflective bond that unites the past, future, physical, and ideological into a single ontological process. Traumatic experience ruptures the intentional arc; for the individual, "being-in-the-world" ceases to have a clear vision, which leads to a disruption in the clarity of their responses to the world. For an individual with PTSD, their own body and the environment lose their transparency; every situation, action, sound, and touch demands constant threat analysis and a "better to act now than regret later" reaction. The body no longer feels "at home" in the world. In the language of contextualism, the habitual "act-in-context" is disrupted. Every new context creates a sense of threat.

Normally, the body is a "transparent" subject; we act through it, without particularly focusing our attention on it. Traumatic experience causes a forced objectification of the body (which aligns with Sidman's research on traumatic

experience and coercion (Sidman, 1989/2001)). The body transforms into an unpredictable object of fear, observation, or alienation. Traumatic experience alters the very mode of bodily experiencing the world: tension, hypervigilance, fragmentation of bodily sensations, dissociation of bodily experience, somatic "memory" of trauma—this is how the embodied experience of trauma manifests (Gallagher, 2005; Zahavi, 2014).

For the individual, traumatic experience becomes rooted in the fabric of the world; the world becomes dangerous, and basic trust in the world is undermined. Traumatic experience deforms the habitability of the world (Ratcliffe, 2022). From the perspective of enactivism (as a contextual science) – perception is action. During a traumatic experience, when the fight or flight options are impossible as a cognitive defense mechanism, a freeze response emerges. In this case, the possibility of "action" as such is lost; thus, the sensorimotor loop is disrupted, which leads to an impairment of perception and, as a consequence, an impairment of the memory of the traumatic event (Ataria, 2015).

From an intersubjective perspective, individuals with traumatic experience have difficulty establishing connections with others, and there is an impaired capacity for empathy, which is well explained by the disruption of perception from an enactive point of view. Meta-analyses of social cognition and emotional competence in individuals with PTSD directly indicate a functional impairment (Couette, Mouchabac, et al., 2020).

The analysis of traumatic and interoceptive experience in the context of the full-scale Russian-Ukrainian war requires special epistemological caution and a review of classical psychotraumatological paradigms. Most treatment protocols for post-traumatic stress disorder (PTSD) were developed for conditions where the traumatic event is spatially and temporally localized in the past, and the subject returns to a safe environment. In contrast, the Ukrainian context is characterized by a state of Continuous Traumatic Stress (CTS), where the war forms a permanent ontological background, and the threat to life remains an objective reality (Kurapov et al., 2023). This requires a specific conceptualization of trauma symptoms through the integration of phenomenological and functional-contextual approaches.

For an individual under the conditions of war, interoceptive experience ceases to be a mere background. The body transforms into a hypersensitive radar, forced to constantly scan the environment for threats (the sound of a siren, explosions, vibrations of walls). In terms of enactivism, the world begins to manifest through action exclusively as a space of danger. The intentional arc, which normally directs a person toward the future, collapses to the scale of the present moment—to the task of physical survival. Phenomenologically, this is experienced not as a "memory of trauma," but as the continuous presence of trauma in every cell of the body "here-and-now."

Contextual Behavioral Science (CBS) examines behavior exclusively in connection with its function in a specific context. In this light, hypervigilance, dissociation, or the constant monitoring of interoceptive signals—which classical psychiatry regards as "symptoms of a disease"—acquire the status of a functionally justified adaptation under the conditions of war. These reactions adequately reflect the objective contingencies of an extremely dangerous environment. At the level of respondent conditioning, interoceptive sensations (e.g., breath-holding, tachycardia) instantly prepare the organism to respond to a strike or the need to descend into a shelter. At the level of operant conditioning, constant checking of the news, avoiding crowds, or overprotectiveness regarding the safety of loved ones are reinforced by the preservation of life (negative reinforcement).

Since the threat remains objective, the therapeutic target in working with clients in Ukraine cannot be the "habituation of fear" or the complete elimination of anxiety (which would be maladaptive and dangerous). The task of trauma-focused ACT is to integrate this survival experience with the restoration of the capacity for flexible contact with the body. This is precisely where phenomenological explication plays a pragmatic role. It allows the client to establish precise stimulus control over their states: to distinguish between an objective signal of danger (to which one must react) and an internal state of fear constructed by relational frames (which can be observed). By teaching the client to explicate and tact their bodily experience ("Right now, I feel a tightness in my solar plexus"), we help them create distance (defusion) between the bodily sensation and the catastrophic thought. This expands the behavioral repertoire: the client learns to take their pain and fear with them as a friend, continuing to act in accordance with their own values—caring for loved ones, working, or serving—even while the external threat persists.

At first glance, phenomenology and radical behaviorism (which serves as the philosophical foundation of Contextual Behavioral Science — CBS) appear to be epistemological antagonists. Phenomenology traditionally focuses on the first-person investigation of one's own lived experience, while behaviorism emphasizes objectivity and the observation of the subject of study, without attempting to analyze what we "cannot see or hear." However, a historical-philosophical analysis can demonstrate their complementarity, which makes their synthesis in trauma-focused therapy both possible and clinically sound. The key point of intersection between both traditions is the radical rejection of Cartesian dualism, which separated mind and body, as well as the repudiation of the mechanistic metaphor of the psyche. While cognitive psychology has largely relied on representationalism (the computer metaphor), where the world is merely encoded and processed internally, phenomenology (specifically M. Merleau-Ponty) and radical behaviorism (B. F. Skinner) categorically rejected this idea.

M. Merleau-Ponty pointed out that consciousness is not a repository for internal representations; it is embodied and intentionally directed at the world (Merleau-Ponty, 1945/2012). Human experience cannot be reduced to computations—it is the direct experiencing of the living body's interaction with the environment. From the perspective of radical behaviorism, Skinner similarly asserted that the organism actively interacts with its environment, rather than merely reacting to it (Skinner, 1974). Perception and memory are viewed here not as "saving files" to a hard drive, but as a specific behavior (action) that is contingent upon context and consequences. Both approaches view cognition not as an internal process, but as an act-in-context. Modern enactivism has organically synthesized these views, defining cognition as embodied action in the world, where knowledge emerges directly in the process of the organism's active engagement with its environment (Varela, Thompson, & Rosch, 1991). The root metaphor in functional contextualism is the act-in-context, meaning that what works is what is effective. Stephen Pepper (Pepper, 1942), in his work on world hypotheses, identified contextualism as one of the fundamental philosophical systems, whose root metaphor is the "historic event" or the "act-in-context." It is precisely this metaphor that unites both directions of our research, although they represent different branches of contextualism (Hayes, 1993).

Descriptive contextualism—phenomenology belongs to this category. The goal of descriptive contextualism is to understand the richness, depth, and structure of an event. It seeks to understand the lived experience in its complexity and wholeness, without attempting to reduce these experiences to mechanistic variables. Descriptive contextualism studies how experience is given to the individual.

Functional contextualism and contextual behavioral science refer us to Stephen Pepper's term "contextualism" and the root metaphor of pragmatism in the tradition of William James (Pepper, 1942). Behavior analysis is a part of the contextual system. The unit of analysis in the contextual approach—both descriptive and functional—is the "act-in-context."

The pragmatic truth criterion has led to several variants of scientific contextualism (Hayes, Hayes, Reese, & Sarbin, 1993). Since different types of contextualism have different analytic goals, descriptive contextualism seeks a personal appreciation of the participant as a whole. The analytic goal of functional contextualism is prediction and influence with precision, scope, and depth (Hayes, 1993). A functional contextualist is interested in what function an action serves and how a change in context can alter this function. In clinical work with trauma, these two branches perfectly complement one another. We cannot change the function of a traumatic experience (the task of ACT) if the client is unable to notice, feel, and holistically describe it in the moment (the task of phenomenological explication). Descriptive contextualism provides the precise data ("something is happening in the body right now"), while functional contextualism determines how to change the response to this data ("how can we be with this in order to move toward your values").

The investigation of interoception in clinical practice encounters a fundamental methodological problem: the object of measurement is a private event to which the researcher lacks direct access. The current gold standard in the cognitive sciences is the differentiation of interoception into three distinct dimensions (Garfinkel et al., 2015). Interoceptive accuracy is the ability to detect physiological signals, which is measured by psychophysiological tests. Interoceptive sensibility is the subjective evaluation of one's focus on bodily sensations, typically measured by questionnaires. Interoceptive awareness is the metacognitive correspondence between objective accuracy and subjective awareness in interoceptive experience.

To develop an effective TF-ACT protocol, we must understand the strengths and weaknesses of available instruments. Currently, measures of interoceptive accuracy face criticism regarding their objectivity and validity for investigating interoceptive experience (Ring & Brener, 2018). Heartbeat tracking tasks (Heartbeat Tracking Task / Schandry Task; Schandry, 1981) reflect not actual sensitivity, but rather the individual's ability to guess their heart rate based on prior knowledge of their stress levels. Furthermore, for ACT therapy, objective accuracy is not a critical target. A patient with PTSD may perceive their tachycardia with perfect accuracy (high accuracy), yet simultaneously experience unbearable fear and resort to avoidance (psychological rigidity).

Self-reports serve the function of measuring the client's interpretations of their interoception. Essentially, questionnaires are an investigation of verbally constructed rules regarding one's own sensations. This is the most common choice for investigating interoceptive experience in psychotherapeutic practice.

In this article, we examine two questionnaires: The Multidimensional Assessment of Interoceptive Awareness, Version 2 (MAIA-2) — a multidimensional questionnaire of interoceptive awareness (MAIA-2; Mehling et al., 2018), and the Body Perception Questionnaire-Short Form (BPQ-SF) (Cabrera et al., 2017). The MAIA-2 has significant limitations: in cases of PTSD or severe dissociation, patients often demonstrate alexithymia. They may provide socially desirable answers or fail to understand the questionnaire's questions altogether due to a lack of relevant verbal experience in tacting their states. The BPQ primarily focuses on distressful, pathologized reactions (e.g., "I feel dizzy," "I feel nauseous"). It does not measure the capacity for the observant acceptance of these states (the "Self-as-context" perspective), which, in our opinion, is insufficient to gain a clear understanding of an individual's ability to tact interoceptive experience.

Quantitative instruments (MAIA-2, BPQ) are reliable tools for screening and evaluating treatment efficacy pre- and post-intervention. However, for direct work with traumatic material during the TF-ACT process, they are insufficient. The lack of an instrument that translates a "blind" physiological signal into a structured and safe-to-explore phenomenon constitutes a major obstacle in PTSD therapy. This justifies the necessity of implementing a semi-structured phenomenological interview (explication) as a processual bridge between bodily sensation and its verbal tacting.

Given the limitations of quantitative questionnaires and psychophysiological tests, clinical phenomenology offers an alternative approach: semi-structured interviews aimed at the microanalysis of subjective experience. The most relevant instrument in this context is the EASE (Examination of Anomalous Self-Experience), developed by J. Parnas, D. Zahavi, and colleagues (Parnas et al., 2005). Although the EASE was initially validated to assess disturbances of basic self in schizophrenia spectrum disorders, its conceptual apparatus proves highly valuable for working with traumatic experience. In PTSD, we observe a similar disruption of pre-reflective immersion in the world: the body loses its transparency and becomes an object ("body-as-obstacle" or "body-as-threat"). For our investigation of interoception in trauma, Domain 2 of the EASE scale is of particular value: "Bodily Experiences."

The congruence of the EASE with the contextual approach lies in the interviewing methodology itself. The interviewer does not ask "Why do you feel this?" (which would provoke rumination and a search for causes), but inquires exclusively about the structure of the experience: "How exactly is this given to you in sensations?", "How would you describe the texture of this sensation?". This method of questioning serves the function of behavioral shaping: step by step, it forms the skill of stimulus discrimination in the client. By transforming chaotic interoceptive stimuli into a set of describable phenomena (localization, temperature, density), the therapist creates the conditions for the successful application of exposure and acceptance processes in ACT. At the same time, utilizing the full EASE battery in routine TF-ACT practice is excessive and cumbersome. Therefore, there is an urgent need to distill the key phenomenological questions from Domain 2 (EASE) and the instruments for describing subjective experience from a second-person perspective (Petitmengin, 2006) in order to create a concise, functionally oriented explication algorithm that can be applied directly in a therapeutic session.

Over the past five years, psychotraumatology has undergone significant transformations. There is a distinct shift away from strictly nosological models, aimed exclusively at symptom reduction according to DSM-5 or ICD-11 clusters, in favor of transdiagnostic, process-based, and embodied approaches (Hofmann & Hayes, 2018). An analysis of the contemporary

literature allows us to identify key trends in the application of Acceptance and Commitment Therapy (ACT) for PTSD, the development of the clinical phenomenology of trauma, and their methodological convergence.

Recent meta-analytic studies confirm that ACT is an effective intervention for the treatment of PTSD and complex PTSD (C-PTSD). However, the research focus has shifted from evaluating overall efficacy to studying the mechanisms of change (mediators of change). In a meta-analysis published in late 2024, Rowe-Johnson, Browning, and Scott (2024) analyzed the impact of ACT on trauma symptoms. The authors found a moderate but statistically significant effect size ($g = -0.423$) regarding the reduction of traumatic symptomatology following the completion of therapy compared to control groups. The researchers draw a critical conclusion: although traditional CBT is often focused on cognitive restructuring, the addition of ACT skills is necessary for those clients whose symptoms are maintained by a high level of experiential avoidance (Rowe-Johnson et al., 2024).

In a fundamental review (Gloster et al., 2020) and recent meta-analyses (Rehman et al., 2025), experiential avoidance has been identified as the primary predictor of PTSD severity. It is described as an individual's unwillingness to remain in contact with painful private events (difficult memories, emotions, interoceptive sensations) and active attempts to alter their form or frequency. Empirical data suggest that a reduction in experiential avoidance and a corresponding increase in psychological flexibility typically precede the reduction of classic PTSD symptoms, such as intrusions and hyperarousal.

Studies of Single-Session Acceptance and Commitment Therapy (SS-ACT) demonstrate that even a single intervention aimed at developing psychological flexibility is capable of initiating positive changes in an individual's life (Rehman, Ghazali, & Elklit, 2025). The potential of SS-ACT as a short-term method is critically important in the context of the ongoing Russian-Ukrainian war. Since comprehensive long-term therapy requires significant temporal, financial, and psychological resources, which are often limited, this approach proves that even brief professional assistance can be functionally beneficial.

A special place in the literature of recent years is occupied by the development of trauma-focused ACT (TF-ACT). R. Walser emphasizes in her clinical conceptualization that the core of trauma is not the memory of the event itself, but the loss of connection with a safe "Self" and the flexible process of experiencing the present moment (Walser, 2019). Studies on the efficacy of TF-ACT in complex PTSD (C-PTSD) indicate that interventions aimed at strengthening "Self-as-context" and defusion from rigid verbal rules (e.g., "I am broken," "my body is dangerous") lead to clinically significant improvements in emotion regulation (Mezyed et al., 2025).

A distinct body of data concerns the efficacy of ACT in working with military personnel and veterans. A meta-analytic review (World Journal of Psychiatry, 2024) confirms that, unlike classical exposure protocols, ACT does not require combatants to control or change negative emotions. Such control is often impossible and even functionally dangerous in the context of an ongoing war or unpredictable environment. Instead, a therapeutic focus on "Self-as-context" and values clarification allows for increased psychological flexibility even in the presence of intense interoceptive arousal. This helps veterans integrate traumatic experience without the need for pathological suppression of reactions, which is critical for long-term adaptation (Meyer et al., 2018).

Based on the results of several successful randomized controlled trials conducted among war refugees from South Sudan and Syria (Epping-Jordan et al., 2016; Tol et al., 2020), the World Health Organization (WHO) currently distributes free ACT-based self-help manuals in 21 languages. Official organization resources state that ACT-based self-help is beneficial for "anyone who experiences stress, wherever they live and whatever their circumstances" (WHO / MSD, 2020). This underscores the high scalability and cultural adaptability of the method, making it an indispensable tool in crisis settings and mass psychological trauma.

A distinct body of research shows that PTSD is increasingly viewed as a condition in which not only emotional regulation or autobiographical memory is disrupted, but also the interoceptive organization of experience. Post-traumatic stress disorder is characterized by persistent symptoms, including repeated re-experiencing, avoidance, and mood alterations, as well as hyperarousal following a traumatic event. PTSD differs from other mental disorders in that it is a time-specific disorder caused by a traumatic event that elicits elevated physiological arousal and fear (Joshi, Aupperle, Khalsa, 2023).

Interoceptive signals are described as potential unconditioned or conditioned components of fear learning, which can subsequently trigger traumatic reactivity themselves. The authors directly raise the question of the role of interoception in the development, maintenance, and treatment of PTSD. Interoceptive signals become unconditioned responses to the stimulus of traumatic experience, subsequently becoming conditioned stimuli, leading to higher-order conditioning of other stimuli associated with interoceptive signals. This constitutes a significant context for fear learning, thereby generalizing fear, and preventing or weakening the consolidation of the traumatic experience and the reduction of the fear response to conditioned stimuli (Joshi, Aupperle, Khalsa, 2023). Consequently, the development and implementation of interventions targeting the tacting response to interoceptive experience and exposure are an important part of PTSD psychotherapy in order to extinguish conditioned responses to conditioned stimuli. From this, we can conclude that traumatic experience is consolidated not merely as a narrative or visual flashback, but as a bodily-signaling network, where internal sensations acquire the functions of threatening stimuli. It follows that the clinical problem lies not simply in the presence of tachycardia, trembling, or tightness, but in how these states are experienced, categorized, and associated with danger.

Mienke M. van de Kamp and Joana Macorriño, in their large-scale meta-analysis (2026) dedicated to investigating the relationship between Interoceptive Awareness (IA) and post-traumatic stress disorder (PTSD) symptomatology, conducted 35 separate statistical analyses. The authors examined correlations between PTSD diagnostic clusters (according to DSM-5 criteria) and nine subdomains of interoception, using validated instruments such as the Multidimensional Assessment of Interoceptive Awareness (MAIA) and the Scale of Body Connection (SBC). The results of ten analyses demonstrated statistically significant pooled correlations, allowing for the conclusion that IA disruptions in PTSD have an uneven character. The clinical picture indicates a pronounced imbalance across different subdomains of interoceptive awareness, which becomes a factor exacerbating traumatic distress. Such a complex architecture of interoception in trauma is characterized by a specific pattern: excessive fixation (hypervigilance) on certain somatic signals is combined with a pronounced deficit in the capacity for their adaptive and flexible regulation.

Alongside the development of Contextual Behavioral Science (CBS), clinical psychiatry and philosophy of mind have undergone a powerful "phenomenological turn," grounded in the paradigm of 4E cognition (Embodied, Embedded, Enacted, Extended). Research on trauma within this framework focuses not on purely cognitive distortions, but on a fundamental change in the ontological status of the body and the individual's lifeworld. In the phenomenological tradition, the traumatized body is described as losing its natural "transparency," becoming either an object of incessant anxious monitoring or a zone of profound alienation. Phenomenology provides the conceptual and methodological tools for describing how PTSD symptoms are directly given to the subject in lived experience. This turn toward embodiment integrates organically with contemporary neurophenomenological research, which emphasizes the critical importance of first-person and second-person methods for investigating subjective experience. Such approaches do not replace objective quantitative methods, but rather complement them, especially when the researcher's or clinician's focus is the internal structure of experience (Lutz et al., 2025). In the context of trauma therapy, this means that phenomenological description is not a decorative philosophical add-on, but a pragmatic way of identifying what precisely becomes the carrier of threat within the client's bodily field of experience: a specific localization, a sensation of pressure, a shift in thermal quality, spatial expansion, a loss of bodily boundaries, emptiness, a sense of foreignness, or immobilization, and so forth.

The work of C. Petitmengin (Petitmengin et al., 2019) and subsequent methodological developments describe the micro-phenomenological interview as a systematic way of recovering the granular structure of lived experience through guided second-person inquiry. Contemporary studies analyzing such interviews demonstrate that this approach has already developed into an autonomous and rigorous methodological discipline. Thomas Fuchs (Fuchs, 2020), one of the leading scholars in clinical phenomenology, conceptualizes trauma as "bodily alienation." Under normal conditions, the body is a "transparent" medium of interaction with the world (the body as subject). After trauma, however, it becomes objectified: it is transformed into an object, a hindrance, a source of pain, and a source of unpredictable autonomic reactions. Interoceptive signals no longer serve an adaptive orienting function; instead, they enact the lifeworld as a space of permanent danger.

This phenomenological picture finds direct neurobiological confirmation in research on interoception. In their foundational review, S. Joshi and colleagues (Joshi, Aupperle, & Khalsa, 2023) emphasize that PTSD is a disorder of interoceptive prediction, in which the nervous system loses the capacity to adequately integrate ascending (afferent) bodily signals. Complementing this, R. Lanius and colleagues (Lanius et al., 2020), in their studies of the Default Mode Network in trauma, show that the rupture between somatic signals and their cortical processing lies at the core of the mechanisms of dissociation and the breakdown of the basic sense of self. Matthew Ratcliffe (Ratcliffe, 2021) deepens this account through the notion of "shaky groundlessness." In his phenomenological studies, he argues that trauma destroys prereflective, basic trust in the world, depriving the person of a sense of belonging to a shared space. At the same time, Yochai Ataria (Ataria, 2015), analyzing the freeze response, points to a breakdown of the sensorimotor loop: the individual loses not merely the capacity for physical movement, but the very pragmatic possibility of action (affordance). This inevitably leads to a collapse of temporality: the past becomes objectified and continuously intrudes into the present in the form of flashbacks, thereby rupturing the subject's intentional arc.

Conclusions

A synthesis of the literature from the past five years demonstrates that phenomenological research and functional contextualism (ACT) do not compete with one another, but rather address a shared problem from different perspectives. Their key point of convergence lies in the establishment of stimulus control over private events.

According to Lazzarelli et al. (2024), the inability to recognize and describe interoceptive experience (low interoceptive awareness) is directly associated with a high level of experiential avoidance, which is one of the principal targets of ACT. If the client experiences dissociation or panic terror as a diffuse, formless catastrophe, the processes of defusion and acceptance have no clear point of application. Fusion occurs not only with thoughts, but also with bodily states themselves, whose functions have been transformed through the equivalent relational frames of trauma.

It is precisely here that methods of micro-phenomenology (Petitmengin et al., 2019) and adapted instruments such as the EASE (Parnas et al., 2005) offer an effective solution that is being actively discussed in interdisciplinary research. Phenomenological explication of experience — a detailed inquiry into the localization, texture, temperature, and dynamics of bodily sensation in the here-and-now — functions as a powerful form of exposure.

The contemporary body of research (2019–2025) confirms that effective work with trauma requires the integration of process-oriented interventions with a deep understanding of the bodily givenness of experience. Contextual Behavioral Science provides a robust functional framework and processes of change (TF-ACT), while clinical phenomenology and 4E cognition offer highly precise tools for differentiating and explicating interoceptive stimuli. This interdisciplinary interaction makes it possible to overcome the limitations of standard protocols when working with complex, dissociative, and somatic manifestations of PTSD, which is of critical importance for optimizing the therapeutic process in conditions of ongoing war.

The literature review supports the conclusion that effective trauma-focused work with PTSD increasingly requires the integration of process-based models, interoceptive science, and the phenomenology of bodily experience. ACT provides a powerful functional framework for changing one's relationship to private events; however, in cases where interoceptive states remain unarticulated or dissociatively fragmented, these processes may be insufficient without a prior procedure of explication. For this reason, phenomenologically oriented second-person interviewing should be understood not as an alternative to ACT, but as a methodological catalyst for more precise stimulus control, tacting, and the subsequent development of psychological flexibility.

Джерела фінансування. Це дослідження не отримало жодного гранту від фінансової установи в державному, комерційному або некомерційному секторах.

References

Khalsa, S. S., & Verdonk, C. (2024). Interoception and mental health. In *Interoception* (pp. 265–316). (Publisher details as provided.) https://doi.org/10.1007/978-3-031-68521-7_9

- Martin, N. L., Williamson, V., Maggio, C., Stubley, J., Kirlic, N., Cleare, A., Rucker, J., & (2025). Clinical conceptualisation of PTSD in psilocybin treatment: Disrupting a pre-determined and over-determined maladaptive interpretive framework. *Therapeutic Advances in Psychopharmacology*, 15, <https://doi.org/10.1177/20451253251342319>
- Rudenko, S., & Tasenko, M. (2024). Improving the Diagnosis of Post-traumatic Stress Disorder and Anxiety-depressive Disorders Using the Methods of Phenomenological Philosophy: Experience of Interdisciplinary Practices in Ukraine. *Studia Warmińskie*, 61, 127–138. <https://doi.org/10.31648/sw.10789>
- Yarmolitska, N., & Tasenko, M. (2025). Traumatic experience of Ukrainian culture in wartime: Military realities and the legacy of national memory (pp. 25–?). Baltic Publishing. <https://doi.org/10.30525/978-9934-26-602-7-25>
- Hayes, S. C., Barnes-Holmes, D., & Roche, B. (Eds.). (2001). *Relational frame theory: A post-Skinnerian account of human language and cognition*. Kluwer Academic/Plenum Publishers. <https://doi.org/10.1007/b108413>
- Ahmadi, S. J., Tavoli, A., Musavi, Z., & Dainer-Best, J. (2024). Acceptance and commitment therapy versus trauma-focused cognitive behavior therapy: A comparative study of the effects on the posttraumatic stress symptoms of female Afghan adolescents. *American Psychologist*, 79(9), 1452–1459. <https://doi.org/10.1037/amp0001451>
- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). <https://doi.org/10.1176/appi.books.9780890425787>
- American Psychological Association. (2017). *Clinical practice guideline for the treatment of posttraumatic stress disorder (PTSD) in adults*. <https://www.apa.org/ptsd-guideline/ptsd.pdf>
- Ataria, Y. (2015). Trauma from an enactive perspective: The collapse of the knowing-how structure. *Adaptive Behavior*, 23(3), 143–154. <https://doi.org/10.1177/1059712315578542>
- Badenoch, B. (2018). *The heart of trauma: Healing the embodied brain in the context of relationships*. W. W. Norton & Company.
- Barnes-Holmes, D., Barnes-Holmes, Y., Hussey, I., & Luciano, C. (2016). Relational frame theory: Finding its historical and philosophical roots and reflecting upon its future development. In R. D. Zettle, S. C. Hayes, D. Barnes-Holmes, & A. Biglan (Eds.), *The Wiley handbook of contextual behavioral science* (pp. 115–128). Wiley Blackwell. <https://doi.org/10.1002/9781118489857.ch8>
- Belisle, J., Paliliunas, D., Catrone, R., Sickman, E., & Ramakrishnan, A. (2024). A comprehensive behavioral model of emotion rooted in relational frame theory and contemporary extensions. *The Psychological Record*, 74(4), 521–539. <https://doi.org/10.1007/s40732-024-00603-2>
- Brette, R. (2022). Brains as computers: Metaphor, analogy, theory or fact? *Frontiers in Ecology and Evolution*, 10, Article 878729. <https://doi.org/10.3389/fevo.2022.878729>
- Cabrera, A., Kolacz, J., Pailhez, G., Bulbena-Cabré, A., Bulbena, A., & Porges, S. W. (2018). Assessing body awareness and autonomic reactivity: Factor structure and psychometric properties of the Body Perception Questionnaire–Short Form (BPQ-SF). *International Journal of Methods in Psychiatric Research*, 27(2), Article e1596. <https://doi.org/10.1002/mpr.1596>
- Couette, M., Mouchabac, S., Bourla, A., Nuss, P., & Ferreri, F. (2020). Social cognition in post-traumatic stress disorder: A systematic review. *British Journal of Clinical Psychology*, 59(2), 117–138. <https://doi.org/10.1111/bjc.12238>
- de Haan, S. (2021). Bio-psycho-social interaction: An enactive perspective. *International Review of Psychiatry*, 33(5), 471–477. <https://doi.org/10.1080/09540261.2020.1830753>
- Dougher, M. J., Hamilton, D. A., Fink, B. C., & Harrington, J. (2007). Transformation of the discriminative and eliciting functions of generalized relational stimuli. *Journal of the Experimental Analysis of Behavior*, 88(2), 179–197. <https://doi.org/10.1901/jeab.2007.45-05>
- Epping-Jordan, J. E., Harris, R., Brown, F. L., Carswell, K., Foley, C., García-Moreno, C., Kogan, C., & van Ommeren, M. (2016). Self-Help Plus (SH+): A new WHO stress management package. *World Psychiatry*, 15(3), 295–296. <https://doi.org/10.1002/wps.20355>
- Fuchs, T. (2005). Corporealized and disembodied minds: A phenomenological view of the body in melancholia and schizophrenia. *Philosophy, Psychiatry, & Psychology*, 12(2), 95–107.
- Fuchs, T. (2018). *Ecology of the brain: The phenomenology and biology of the embodied mind*. Oxford University Press. <https://doi.org/10.1093/med/9780199646883.001.0001>
- Fuchs, T. (2020). Embodiment and personal identity in dementia. *Medicine, Health Care and Philosophy*, 23(4), 665–676. <https://doi.org/10.1007/s11019-020-09973-0>
- Fuchs, T. (2026). The experiential basis of concepts: Integrating embodied and enactive accounts. *Frontiers in Psychology*, 16, Article 1710102. <https://doi.org/10.3389/fpsyg.2025.1710102>
- Fuchs, T., & Schlimme, J. E. (2009). Embodiment and psychopathology: A phenomenological perspective. *Current Opinion in Psychiatry*, 22(6), 570–575. <https://doi.org/10.1097/YCO.0b013e3283318e5c>
- Gallagher, S. (2005). *How the body shapes the mind*. Oxford University Press. <https://doi.org/10.1093/0199271941.001.0001>
- Gallagher, S. (2020). *Action and interaction*. Oxford University Press. <https://doi.org/10.1093/oso/9780198846345.001.0001>
- Garfinkel, S. N., Seth, A. K., Barrett, A. B., Suzuki, K., & Critchley, H. D. (2015). Knowing your own heart: Distinguishing interoceptive accuracy from interoceptive awareness. *Biological Psychology*, 104, 65–74. <https://doi.org/10.1016/j.biopsycho.2014.11.004>
- Gloster, A. T., Walder, N., Levin, M. E., Twohig, M. P., & Karekla, M. (2020). The empirical status of acceptance and commitment therapy: A review of meta-analyses. *Journal of Contextual Behavioral Science*, 18, 181–192. <https://doi.org/10.1016/j.jcbs.2020.09.009>
- Hall, A., Gregg, L., O’Ceallaigh, B., & Wittkowski, A. (2025). Transdiagnostic patient experiences of dialectical behavioural therapy: A systematic review and metasynthesis. *Frontiers in Psychiatry*, 16, Article 1640341. <https://doi.org/10.3389/fpsy.2025.1640341>
- Harricharan, S., Nicholson, A. A., Thome, J., Densmore, M., McKinnon, M. C., Théberge, J., Neufeld, R. W. J., Frewen, P. A., & Lanius, R. A. (2020). PTSD and its dissociative subtype through the lens of the insula: Anterior and posterior insula resting-state functional connectivity and its predictive validity using machine learning. *Psychophysiology*, 57(1), Article e13472. <https://doi.org/10.1111/psyp.13472>
- Harte, C., Barnes-Holmes, D., de Rose, J. C., Perez, W. F., & de Almeida, J. H. (2023). Grappling with the complexity of behavioral processes in human psychological suffering: Some potential insights from relational frame theory. *Perspectives on Behavior Science*, 46(1), 237–259. <https://doi.org/10.1007/s40614-022-00363-w>
- Hayes, S. C. (1993). Analytic goals and the varieties of scientific contextualism. In S. C. Hayes, L. J. Hayes, H. W. Reese, & T. R. Sarbin (Eds.), *Varieties of scientific contextualism* (pp. 11–27). Context Press.
- Hayes, S. C., Ciarrochi, J., Hofmann, S. G., Chin, F., & Sahdra, B. (2022). Evolving an idiomorphic approach to processes of change: Toward a unified personalized science of human improvement. *Behaviour Research and Therapy*, 156, Article 104155. <https://doi.org/10.1016/j.brat.2022.104155>
- Hayes, S. C., Hofmann, S. G., & Ciarrochi, J. (2020). A process-based approach to psychological diagnosis and treatment: The conceptual and treatment utility of an extended evolutionary meta-model. *Clinical Psychology Review*, 82, Article 101908. <https://doi.org/10.1016/j.cpr.2020.101908>
- Hayes, S. C., & King, G. A. (2024). Acceptance and commitment therapy: What the history of ACT and the first 1,000 randomized controlled trials reveal. *Journal of Contextual Behavioral Science*, 33, Article 100809. <https://doi.org/10.1016/j.jcbs.2024.100809>
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2011). *Acceptance and commitment therapy: The process and practice of mindful change* (2nd ed.). Guilford Press.
- Hofmann, S. G., & Hayes, S. C. (2018). The future of intervention science: Process-based therapy. *Clinical Psychological Science*, 7(1), 37–50. <https://doi.org/10.1177/2167702618772296>
- Kurapov, A., Pavlenko, V., Drozdov, A., Bezliudna, V., Reznik, A., & Isralowitz, R. (2023). The mental health impact of the ongoing Russian-Ukrainian war 6 months after the Russian invasion of Ukraine. *Frontiers in Psychiatry*, 14, Article 1134780. <https://doi.org/10.3389/fpsy.2023.1134780>
- Lazzarelli, A., Scafuto, F., Crescentini, C., Matiz, A., Orrù, G., Ciacchini, R., Alfi, G., Gemignani, A., & Conversano, C. (2024). Interoceptive ability and emotion regulation in mind–body interventions: An integrative review. *Behavioral Sciences*, 14(11), Article 1107. <https://doi.org/10.3390/bs14111107>
- Leech, K., Stapleton, P., & Patching, A. (2024). A roadmap to understanding interoceptive awareness and post-traumatic stress disorder: A scoping review. *Frontiers in Psychiatry*, 15, Article 1355442. <https://doi.org/10.3389/fpsy.2024.1355442>
- Levin, M. E., Twohig, M. P., & Krafft, J. (Eds.). (2020). *Innovations in acceptance and commitment therapy: Clinical advancements and applications in ACT*. New Harbinger Publications.
- Linehan, M. M. (2014). *DBT skills training manual* (2nd ed.). Guilford Press.
- Martin, L. A. L., Melchert, D., Knack, M., & Fuchs, T. (2023). Relating movement markers of schizophrenia to self-experience: A mixed-methods study. *Frontiers in Psychiatry*, 14, Article 1212508. <https://doi.org/10.3389/fpsy.2023.1212508>
- Merleau-Ponty, M. (2012). *Phenomenology of perception* (D. A. Landes, Trans.). Routledge. (Original work published 1945)

- Meyer, E. C., Walser, R., Hermann, B., La Bash, H., DeBeer, B. B., Morissette, S. B., Kimbrel, N. A., Kwok, O.-M., Batten, S. V., & Schnurr, P. P. (2018). Acceptance and commitment therapy for co-occurring posttraumatic stress disorder and alcohol use disorders in veterans: Pilot treatment outcomes. *Journal of Traumatic Stress*, 31(5), 781–789. <https://doi.org/10.1002/jts.22322>
- Mezzyed, S. A., Abed, E., & Zarga, D. A. (2025). The effectiveness of trauma-focused acceptance and commitment therapy in reducing symptoms of complex post-traumatic stress disorder: A single case study mixed method. *Humanities and Social Sciences*, 13(1), 67–84. <https://doi.org/10.11648/j.hss.20251301.18>
- Miltenberger, R. G. (2024). *Behavior modification: Principles and procedures* (7th ed.). Cengage Learning.
- Newen, A., de Bruin, L., & Gallagher, S. (Eds.). (2018). *The Oxford handbook of 4E cognition*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198735410.001.0001>
- Pepper, S. C. (1942). *World hypotheses: A study in evidence*. University of California Press.
- Petitmengin, C., Remillieux, A., & Valenzuela-Moguillansky, C. (2019). Discovering the structures of lived experience: Towards a micro-phenomenological analysis method. *Phenomenology and the Cognitive Sciences*, 18(4), 691–730. <https://doi.org/10.1007/s11097-018-9597-4>
- Ramnerö, J., & Törneke, N. (2008). *The ABCs of human behavior: Behavioral principles for the practicing clinician*. New Harbinger Publications.
- Ratcliffe, M. (2021). Trauma, language, and trust. In A. Bortolan & E. Magri (Eds.), *Empathy, intersubjectivity, and the social world: The continued relevance of phenomenology* (pp. 323–342). De Gruyter. <https://doi.org/10.1515/9783110698787-017>
- Rehman, S., Ghazali, S. R., & Elklit, A. (2025). A systematic and meta-analytical review of acceptance and commitment therapy for PTSD. *Journal of Loss and Trauma*, 31(1), 90–119. <https://doi.org/10.1080/15325024.2025.2565354>
- Ring, C., & Brener, J. (2018). Heartbeat counting is unrelated to heartbeat detection: A comparison of methods to quantify interoception. *Psychophysiology*, 55(9), Article e13084. <https://doi.org/10.1111/psyp.13084>
- Rowe-Johnson, M. K., Browning, B., & Scott, B. (2025). Effects of acceptance and commitment therapy on trauma-related symptoms: A systematic review and meta-analysis. *Psychological Trauma: Theory, Research, Practice, and Policy*, 17(3), 668–675. <https://doi.org/10.1037/tra0001785>
- Ryan, K., & Gallagher, S. (2020). Between ecological psychology and enactivism: Is there resonance? *Frontiers in Psychology*, 11, Article 1147. <https://doi.org/10.3389/fpsyg.2020.01147>
- Shapiro, F. (2017). *Eye movement desensitization and reprocessing (EMDR) therapy: Basic principles, protocols, and procedures* (3rd ed.). Guilford Press.
- Sidman, M. (1994). Equivalence relations and behavior: A research story. Authors Cooperative.
- Sidman, M. (2001). Safe periods both explain and need explaining. *Journal of the Experimental Analysis of Behavior*, 75(3), 335–338. <https://doi.org/10.1901/jeab.2001.75-335>
- Skinner, B. F. (1953). *Science and human behavior*. Macmillan.
- Skinner, B. F. (1974). *About behaviorism*. Knopf.
- Skinner, B. F. (1957). *Verbal behavior*. Appleton-Century-Crofts.
- Thomas, J. L., Yarrington, J. S., Chen, T., Benedicto, R., Sumner, J. A., & Keenan-Miller, D. (2025). Acceptance and commitment therapy for posttraumatic stress psychopathology: Evaluating a transdiagnostic group-based telehealth intervention. *American Journal of Psychotherapy*. Advance online publication. <https://doi.org/10.1176/appi.psychotherapy.20240030>
- Tol, W. A., Leku, M. R., Lakin, D. P., Carswell, K., Augustinavicius, J., Adaku, A., Au, T. M., Brown, F. L., Bryant, R. A., García-Moreno, C., Musci, R. J., Ventevogel, P., White, R. G., & van Ommeren, M. (2020). Guided self-help to reduce psychological distress in South Sudanese female refugees in Uganda: A cluster randomised trial. *The Lancet Global Health*, 8(2), e254–e263. [https://doi.org/10.1016/S2214-109X\(19\)30504-2](https://doi.org/10.1016/S2214-109X(19)30504-2)
- Törneke, N. (2010). *Learning RFT: An introduction to relational frame theory and its clinical applications*. Context Press/New Harbinger Publications.
- van de Kamp, M. M., & Machorinho, J. (2026). Association between interoceptive awareness and symptoms of post-traumatic stress disorder: A meta-analysis. *European Journal of Trauma & Dissociation*, 10(1), Article 100638. <https://doi.org/10.1016/j.ejtd.2026.100638>
- Varela, F. J., Thompson, E., & Rosch, E. (1991). *The embodied mind: Cognitive science and human experience*. MIT Press.
- Villatte, M., Villatte, J. L., & Hayes, S. C. (2016). *Mastering the clinical conversation: Language as intervention*. Guilford Press.
- Wang, J.-Q., Wang, X.-Z., & Wang, W.-X. (2025). Acceptance and commitment therapy for enhancing mental health in military personnel: A comprehensive review and meta-analysis. *World Journal of Psychiatry*, 15(3), Article 100959. <https://doi.org/10.5498/wjp.v15.i3.100959>
- Wilson, D. S., & Hayes, S. C. (Eds.). (2018). *Evolution and contextual behavioral science: An integrated framework for understanding, predicting, and influencing human behavior*. Context Press.
- World Health Organization. (2019). *International statistical classification of diseases and related health problems* (11th ed.). <https://icd.who.int/>
- Zahavi, D. (2014). *Self and other: Exploring subjectivity, empathy, and shame*. Oxford University Press.
- Zettle, R. D., Hayes, S. C., Barnes-Holmes, D., & Biglan, A. (Eds.). (2016). *The Wiley handbook of contextual behavioral science*. Wiley Blackwell. <https://doi.org/10.1002/9781118489857>
- Sidman, M. (1989). *Coercion and its fallout*. Authors Cooperative.
- Walser, R. D., & Westrup, D. (2007). *Acceptance and commitment therapy for the treatment of post-traumatic stress disorder and trauma-related problems: A practitioner's guide to using mindfulness and acceptance strategies*. New Harbinger.
- Walser, R. D. (2019). *The heart of ACT: Developing a flexible, process-based, and client-centered practice using acceptance and commitment therapy*. Context Press/New Harbinger.
- Mehling, W. E., Acree, M., Stewart, A., Silas, J., & Jones, A. (2018). The Multidimensional Assessment of Interoceptive Awareness, Version 2 (MAIA-2). *PLOS ONE*, 13(12), Article e0208034. <https://doi.org/10.1371/journal.pone.0208034>
- Petitmengin, C. (2006). Describing one's subjective experience in the second person: An interview method for the science of consciousness. *Phenomenology and the Cognitive Sciences*, 5(3–4), 229–269. <https://doi.org/10.1007/s11097-006-9022-2>
- Lanius, R. A., Terpou, B. A., & McKinnon, M. C. (2020). The sense of self in the aftermath of trauma: Lessons from the default mode network in posttraumatic stress disorder. *European Journal of Psychotraumatology*, 11(1), Article 1807703. <https://doi.org/10.1080/20008198.2020.1807703>
- Joshi, S. A., Aupperle, R. L., & Khalsa, S. S. (2023). Interoception in fear learning and posttraumatic stress disorder. *FOCUS: The Journal of Lifelong Learning in Psychiatry*, 21(3), 266–278. <https://doi.org/10.1176/appi.focus.20230007>

Отримано редакцією журналу / Received: 20.03.26

Прорецензовано / Revised: 20.04.26

Схвалено до друку / Accepted: 27.04.26

Опубліковано / Published: 30.05.26

Давид ЦИБЕНКО, асп.

ORCID ID: 0009-0002-9528-0975

e-mail: cibenkodavid@gmail.com

Київський національний університет імені Тараса Шевченка, Київ, Україна

ФЕНОМЕНОЛОГІЧНА ЕКСПЛІКАЦІЯ ІНТЕРОЦЕПТИВНОГО ДОСВІДУ В ТРАВМО-ФОКУСОВАНІЙ ТЕРАПІЇ ПРИЙНЯТТЯ ТА ЗОБОВ'ЯЗАННЯ: КОНЦЕПТИ, ЗАСАДИ ТА МЕТОДОЛОГІЯ ДОСЛІДЖЕННЯ

Вступ. Сприйняття внутрішніх тілесних станів (інтероцепція) виступає фундаментальним механізмом травматичного переживання. У клінічній практиці цей досвід нерідко залишається неартикульованим та феноменологічно недоступним через дефіцит навички тактування приватних подій. Це створює фундаментальну перешкоду для інтеграції травматичного досвіду в межах травмофокусованої терапії прийняття та зобов'язання (TF-ACT). Дослідження має на меті концептуалізувати філософські та методологічні виміри феноменологічної експлікації як прагматичного інструменту диференціювання стимулів у TF-ACT.

Методи. Дослідження спирається на комплексне поєднання методів контекстуально-поведінкової науки (CBS) та феноменології. Застосовано історико-філософську реконструкцію для подолання картезіанського дуалізму через парадигму 4Е-пізнання (енактивізм). Для аналізу трансформації інтероцептивного досвіду використано апарат Теорії реляційних фреймів (RFT) та мікрофеноменологічного аналізу (шкала EASE).

Результати. Доведено комплементарність описового контекстуалізму (феноменології) та функціонального контекстуалізму (АСТ). Травма концептуалізується як онтологічний розрив способу "буття-у-світі" та тотальне порушення стимульного контролю, де інтероцептивні сигнали набувають аверсивних функцій через довільно застосований реляційний фреймінг. Обґрунтовано, що в умовах безперервного травматичного стресу (військовий контекст України) феноменологічна експлікація виступає необхідним епістемологічним мостом, що переводить недиференційований соматичний жах у структурований феномен, уможливляючи процеси дефузії та прийняття.

Висновки. Збереження автентичного контакту з тілесністю вимагає інтеграції мікрофеноменологічного опитування у протоколи TF-АСТ. Феноменологічна експлікація не суперечить радикальному біхевіоризму, а слугує інструментом поведінкового шейпінгу для встановлення точного стимульного контролю над приватними подіями, забезпечуючи психологічну гнучкість в умовах об'єктивної екзистенційної загрози.

Ключові слова: енактивізм, експерієнційне уникнення, інтероцепція, контекстуально-поведінкова наука, посттравматичний стресовий розлад, теорія реляційних фреймів.

Автор заявляє про відсутність конфлікту інтересів. Спонсори не брали участі в розробленні дослідження; у зборі, аналізі чи інтерпретації даних; у написанні рукопису; в рішенні про публікацію результатів.

The author declares no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses or interpretation of data; in the writing of the manuscript; in the decision to publish the results.