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Inference-Based Cognitive Therapy: A Process Model of Obsessional Doubt and False Belief Formation

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Abstract

Inference-based cognitive therapy (ICBT) is an evidence-based treatment for obsessive-compulsive disorder (OCD) grounded in a process model of obsessional doubt and false belief formation. In contrast to accounts that treat obsessions as intrusive mental events subsequently appraised as significant, the inference-based approach (IBA) conceptualizes obsessional doubt as the outcome of an active reasoning process: a narrative that dismisses direct experience, over-relies on imagined possibilities, and misapplies otherwise accurate facts, associations, and values to the present situation. The resulting state of inferential confusion, in which an imagined possibility is mistaken for a real probability despite the absence of direct evidence, constitutes the model's central construct and primary treatment target. This chapter outlines the philosophical and theoretical assumptions of the approach, describes the core reasoning processes through which obsessional doubt is constructed and stabilized, and examines the role of the feared possible self in organizing obsessional narratives around themes of protection and preservation. Assessment strategies are reviewed, including narrative-based clinical assessment, validated self-report measures of inferential confusion and feared self, and task-based indices of inferential reasoning. Treatment techniques are then presented in their clinical sequence, from mapping the obsessional sequence and articulating the obsessional narrative to correcting inferential confusion, clarifying the feared self, and re-establishing experiential grounding through reality sensing. Evidence from randomized controlled trials supporting the efficacy of ICBT is summarized, along with process research identifying inferential confusion as a leading candidate mechanism of change across treatment modalities. Limitations, safeguards, and the model's relationship to established cognitive-behavioral approaches are discussed.

1. Introduction

The inference-based approach (IBA) is a cognitive model that conceptualizes Obsessive-Compulsive Disorder (OCD) in terms of how individuals create obsessional doubt and arrive at false inferences about reality (Aardema & O'Connor, 2003, 2007; O'Connor, Aardema, & Pelissier, 2005; Ouellet-Courtois, O'Connor, & Aardema, 2018). The model locates the origin of obsessional distress not in exaggerated fear or misinterpreted mental events, but in reasoning processes that displace attention from immediately available perceptual and internal experiential cues toward imagined possibilities treated as evidentially relevant.

Within IBA, the term doubt does not refer merely to a subjective feeling of uncertainty, but to an inferential stance toward reality. OCD is conceptualized as a disorder of pathological skepticism, in which ordinarily sufficient perceptual and contextual knowledge fails to terminate judgment about what is taken to be the case. This inferential stance may be experienced phenomenologically as doubt, hesitation, or "not knowing," but it may also consolidate into belief-like conviction when imagined possibilities are stabilized through narrative elaboration and repeated inferential reinforcement. In this sense, IBA treats obsessional doubt and obsessional false belief not as categorically distinct phenomena, but as expressions along a single continuum of inferential disturbance. This formulation echoes early clinical descriptions of OCD as a "doubting disease," commonly attributed to Janet (1903), which IBA treats not as metaphor, but as a phenomenological observation pointing toward a disturbance in evidential reasoning.

This positioning differs from appraisal-based cognitive models that locate the genesis of obsessions in spontaneous intrusive cognitions and attribute clinical significance to subsequent interpretations of those intrusions (Rachman, 1998a, 1998b; Salkovskis, 1985). Appraisal-based accounts typically assume that intrusive thoughts are universal and that obsessions emerge when such intrusions are evaluated as personally significant, threatening, or morally consequential. IBA does not contest the ubiquity of intrusive thoughts, nor the observed overlap in content between intrusive cognitions reported in the general population and obsessional themes (Radomsky et al., 2014). The difference is not one of content, but of explanatory priority. Within IBA, content similarity between normal intrusions and obsessions is theoretically uninformative. The central explanatory question concerns the inferential process through which imagined possibilities come to outweigh perceptual evidence and acquire compelling relevance in the present.

In IBA, an obsession is better characterized as an inference than as an intrusion (O'Connor, 2002). Obsessional doubt develops through inferential steps in which imagined meaning progressively displaces perceptual and contextual information. Appraisals may contribute to the persistence of distress, but they are not treated as the generative mechanism of obsessional doubt. Instead, the defining cognitive feature of OCD is proposed to be a disturbance in reasoning termed inferential confusion (IC; Aardema, O'Connor, Emmelkamp, Marchand, & Todorov, 2005). IC refers

to an inferential stance in which imagined possibilities begin to function as if they were indicators of present reality, even when perceptual cues and contextual knowledge do not support such conclusions. Reasoning becomes organized around an internally generated narrative that confers coherence and plausibility on a hypothetical scenario, while the evidential authority of perception is weakened (O'Connor & Robillard, 1995).

Although developed in relation to OCD, IBA is not restricted to a symptom-description framework. Its core claims concern the conditions under which inference itself becomes unreliable when imagination is treated as a primary evidential source. The inferential drift described by the model is most pronounced in OCD, but related reasoning configurations may be observed in other clinical presentations in which hypothetical meaning is granted unwarranted relevance, including body dysmorphic disorder (Taillon, O'Connor, Dupuis, & Lavoie, 2013), eating disorders (Ouellet-Courtois et al., 2018), hoarding disorder (Blais, Bodryzlova, Aardema, & O'Connor, 2016), and certain forms of delusional disorder (Aardema et al., 2005). In these conditions, the scope of inferential drift may be more circumscribed or domain-specific, yet the organizing dynamic remains comparable: imagined possibilities guide conclusions in place of perceptual evidence. To the extent that similar shifts occur in some anxiety presentations, IBA offers a framework for examining when imagination functions not merely as the object of worry or appraisal, but as a source of evidence in everyday judgment.

Inference-Based Cognitive Therapy (ICBT) is the clinical treatment explicitly derived from this model. Whereas IBA specifies the cognitive architecture through which obsessional doubt and false belief are constructed, ICBT operationalizes these claims in a structured psychotherapeutic method designed to correct IC at its point of origin. The distinction is deliberate rather than semantic. IBA denotes the explanatory account of obsessional reasoning; ICBT denotes the intervention that follows from it. The treatment is therefore not an assemblage of techniques borrowed from other approaches, but a direct clinical translation of the model's central theoretical commitments.

This chapter elaborates on IBA as a cognitive model of OCD and related disorders by specifying the inferential conditions under which obsessional doubt is generated, stabilized, and maintained. It delineates the reasoning processes that displace perceptual and contextual evidence in favor of imagined possibilities, reviews the assessment instruments developed to capture these processes, and describes the clinical operations through which ICBT intervenes. Empirical findings bearing on outcome and mechanism are examined alongside conceptual and methodological constraints, with particular attention to the problem of iatrogenic effects in a disorder notoriously prone to assimilating therapeutic procedures into its own inferential system. Rather than proposing another variant of content-focused or exposure-based intervention, the chapter situates IBA and ICBT as a distinct process model that targets the construction of obsessional doubt itself, clarifying what

follows theoretically and clinically when OCD is understood as a disturbance of inference rather than a reaction to intrusive content, uncertainty, or fear.

2. Philosophical and Theoretical Assumptions

IBA is a cognitive-behavioral model that draws selectively on constructionist and phenomenological traditions to clarify how individuals generate meaning and arrive at conclusions about reality (O'Connor, 2015). These traditions are employed instrumentally, not as an alternative to CBT but as a means of specifying cognitive mechanisms that are otherwise difficult to capture within strictly mediationist frameworks. IBA remains a cognitive-behavioral model concerned with reasoning, inference, and action. In this account, narrative serves a specific epistemic function: it governs inference and relevance assignment, rather than constituting a relativist or constructivist account of meaning, autobiographical storytelling, or post-hoc explanation.

A central assumption of IBA is that psychological experience is not assembled through a linear sequence of discrete inputs and interpretations. Instead, perception and imagination jointly contribute to the sense of what is real within an ongoing self–world interaction (Brentano, 1874/1973; Husserl, 1913/1982). Experience is understood as a generative process in which perceptual information is always embedded within a horizon of possibilities, expectations, and contextual meanings. From this standpoint, the appropriate starting point for understanding obsessional problems in OCD is not a discrete stimulus or isolated intrusive thought, but the inferential position through which the situation is approached.

This inferential account also clarifies why some obsessional experiences are reported less as questions than as conclusions. As inferential drift progresses, the hypothetical scenario may acquire sufficient coherence and felt relevance to be experienced as a belief about the present state of affairs, particularly in cases involving high conviction or overvalued ideation. This belief-like quality does not reflect a separate belief-generating mechanism, but a further consolidation of the same inferential process by which imagined possibilities acquire epistemic authority over perceptual information.

Accordingly, obsessional doubt or belief is conceptualized as a constructed experience that emerges when the generative organization of experience becomes skewed toward imagined possibilities. When this occurs, the evidential authority of perceptual and contextual information is diminished, and hypothetical meaning begins to guide conclusions about the present. Importantly, this same epistemic shift can support either persistent doubt or belief-like conviction, depending on the degree to which the imagined scenario becomes stabilized and insulated from perceptual correction.

Although grounded in constructionist principles, IBA remains a cognitive-behavioral model and therefore uses process language to describe how obsessional doubt unfolds in clinical practice.

Process terms such as triggers, percepts, or narrative links are used pragmatically to identify shifts in inferential stance within a continuous experiential field. These terms are not intended to imply a modular nor mediationist architecture in which discrete cognitive units transmit information from one stage to another. Rather, they function as markers for clinically observable transitions in how relevance is assigned. This usage is consistent with broader developments in contemporary CBT, which increasingly emphasize context-sensitive, meaning-making processes over stimulus-driven models (Hayes, Strosahl, & Wilson, 2012; Hofmann & Hayes, 2019; Safran & Segal, 1990; Segal, Williams, & Teasdale, 2013).

2.1 Doubt as Active Reasoning, Not Passive Intrusion

IBA proposes that obsessional doubt does not originate in intrusive thoughts or in difficulty tolerating uncertainty. The starting point is an inferential shift in which the individual actively constructs a chain of reasoning that privileges a hypothetical scenario over what is available through perception and contextual knowledge. What is often described clinically as a "sudden obsession" is better understood as the endpoint of a reasoning drift already in progress. This drift begins when attention shifts away from the here-and-now environment toward an imagined possibility that comes to feel increasingly relevant. In IBA, this reflects a constructionist insight used to clarify cognitive processes: psychological phenomena are not passive reactions to mental events but interpretive acts shaped by the broader narrative stance the person brings to the situation (Howard, 1991; Merleau-Ponty, 1962; Sartre, 1940).

From this perspective, obsessions do not arise because an intrusive thought has been negatively appraised. Rather, they emerge because the individual actively constructs a storyline in which a hypothetical possibility acquires plausibility and informational value. Links, associations, and fragments of imagined meaning are organized into a coherent narrative that departs from perceptual reality while retaining a sense of internal consistency and personal relevance. The compelling quality of obsessional doubt is therefore produced by these inferential steps, not by the mere occurrence of an intrusive thought or by the individual's response to it.

Although obsessional doubt is actively constructed, it may nonetheless be experienced as intrusive or sudden. Its form and content may resemble intrusive thoughts reported in the general population, but this phenomenological similarity does not imply a shared origin. Everyday intrusions can arise from a range of ordinary cognitive processes, including momentary shifts in attention, associative activation, or spontaneous ideation, without reflecting any particular inferential or narrative structure.

In OCD, by contrast, IBA holds that when intrusiveness is reported, it is better understood as the moment, which may occur at different points within the broader obsessional sequence, when a possibility that has been gradually elaborated through an ongoing inferential drift becomes the

focal point of awareness. Because the transition from perceptual engagement to imaginative reasoning may occur outside the individual's immediate attentional focus, it can be experienced as sudden and involuntary. In some cases, this shift is accompanied by a degree of disengagement from the here-and-now, contributing to the impression that the thought has "intruded" into consciousness (Aardema, 2003, 2007). The suddenness thus reflects when a fully formed, possibility-based scenario occupies awareness, not how it was constructed.

Within this framework, obsessional doubt is neither passive nor random. It is an actively constructed inference, produced by reasoning steps that draw the individual away from direct perceptual engagement and toward hypothetical threat scenarios. ICBT therefore focuses on helping individuals identify and reconstruct these inferential steps, rather than on modifying intrusive thoughts, challenging appraisals, or disputing beliefs derived from the obsessional narrative.

2.2 The Relationship Between Perception and Imagination

Constructionist psychology holds that perception is always embedded within a background of possibilities, intentions, and contextual meaning (Husserl, 1913/1982; Heidegger, 1927/1962). Individuals do not perceive in isolation from what they anticipate, fear, or implicitly project; perception is continuously informed by an implicit sense of what could be occurring or might occur next. IBA adopts this framework to clarify how imagined possibilities come to acquire relevance in OCD.

In obsessional doubt, imagination begins to dominate the interpretive field. A hypothetical scenario becomes the organizing context for understanding experience, allowing imagined possibilities to outweigh direct sensory and contextual information. As constructionist accounts emphasize, perception and imagination are always in interaction, and what is experienced as real is shaped by the narrative context within which experience is organized (Ahsen, 1984; Merleau-Ponty, 1962).

This position is supported by work on imagination in clinical reasoning. O'Connor and Aardema (2003) describe imagination as a generative cognitive process that produces possibilities beyond what is immediately perceived. Under certain conditions, these imaginative constructions are treated as if they were informative about reality, particularly when they align with salient personal meanings. Within IBA, this mechanism clarifies how individuals may shift from perceptual engagement into a possibility-based reasoning mode in which imagined meanings acquire evidential status.

Crucially, reality is not distorted or misperceived in this process; it is deprioritized. The individual has not lost contact with the perceptual world but has altered the relative weight assigned

to different sources of information, allowing imagined possibilities to take precedence over perception in the formation of obsessional conclusions.

2.3 The Self, Narrative, and Identity

Constructionist psychology further emphasizes that experience is shaped by the ways individuals orient themselves toward and engage with the world, as well as by the narratives through which meaning is organized (Shotter, 1993; O'Connor, 2015). Within IBA, these narrative structures are expressed most clearly through feared possible selves and identity-based vulnerabilities that guide which imagined scenarios acquire relevance during obsessional reasoning (Aardema & O'Connor, 2007; Aardema et al., 2013; Aardema & Wong, 2020).

These self-themes do not merely influence the thematic content of obsessions; they constrain inferential relevance. When a doubt resonates with a feared aspect of identity, the imagined scenario acquires both emotional and epistemic weight. This alignment between hypothetical possibility and feared self organizes the inferential sequence, allowing imagined meaning to overshadow perceptual information. Obsessions therefore do not arise simply because a thought is disturbing or unusual; they arise because the scenario coheres with the individual's implicit narrative about who they might be or might become.

In this way, the distinctive personal significance of obsessional doubt, often experienced as moral, existential, or characterological urgency, reflects the interaction between IC and deeper narrative structures concerning the self. Identity-laden themes function as a backdrop against which conclusions are drawn, shaping both the direction of imaginative reasoning and the perceived plausibility of otherwise remote possibilities.

2.4 From Philosophical Assumptions to Cognitive Mechanisms

Taken together, these assumptions locate obsessional doubt at the intersection of three elements: a constructionist stance toward cognition, a systematic imbalance between perception and imagination, and identity-based narrative themes that determine which possibilities feel personally relevant. IBA does not invoke this framework as an abstract philosophical position. Rather, it serves to specify how, in practice, individuals with OCD come to treat imagined scenarios as if they were informative about the present.

The following section moves from these broader foundations to the cognitive mechanisms through which obsessional doubt is constructed and, in some cases, stabilized into belief-like conviction**.** These include the reasoning operations that generate IC, the narrative processes that sustain it, and the means by which imagined possibilities come to outweigh perceptual and contextual information in guiding judgment.

3. Processes and Mechanisms of Change

Since its initial formulation, IBA has identified a series of reasoning disturbances implicated in the construction of obsessional doubt in OCD and related disorders. Early work emphasized the role of inverse inference, a reasoning mode in which conclusions are generated in the absence of direct perceptual evidence and imagination is used to compensate for this evidential gap (O'Connor & Robillard, 1995). In inverse inference, the individual begins with a hypothetical possibility and then searches for information that could support it, reversing the ordinary evidential order through which perception constrains judgment. This lack of reliance on direct evidence was identified as a defining feature of obsessional reasoning from the outset.

Subsequent developments refined this account by specifying additional reasoning processes that facilitate and sustain inverse inference. In particular, later work described a systematic distrust of self-knowledge and perception, alongside an increasing overreliance on imagination during reasoning (Aardema et al., 2005). These processes were shown to weaken the evidential authority of perceptual and contextual information, thereby increasing the plausibility of hypothetical scenarios generated through imagination. Together, they clarified how inverse inference is not a momentary reasoning error but a broader epistemic stance toward reality.

More recent formulations have further elaborated this framework by describing how multiple reasoning distortions interact dynamically to produce a stable state of IC (Aardema, 2024, 2025a). Rather than operating in isolation, these reasoning processes mutually reinforce one another, progressively reorganizing how information is weighted, interpreted, and integrated. The result is a self-sustaining inferential system in which imagined possibilities acquire unwarranted evidential relevance, while perceptual correction becomes increasingly ineffective.

The present section synthesizes these developments by outlining the core reasoning components through which inverse inference unfolds and consolidates into IC. These mechanisms are not proposed as discrete causal units, but as interrelated operations within a single reasoning system that shifts judgment away from the here-and-now and toward a hypothetical frame.

3.1 Core Reasoning Components

IC is expressed through a recurring configuration of reasoning components that together enact the epistemic shift described above. These components have been identified through successive refinements of the inference-based framework and specify how inverse inference becomes instantiated in everyday judgment. They are not independent processes, but inseparable aspects of the same disturbed inferential state.

When IC is present, direct experiential information, including both external perceptual cues and internally generated experiential signals, no longer settles conclusions, imagination assumes

evidential authority, and relevance is assigned on the basis of hypothetical meaning rather than present-moment reality. These shifts do not occur as abstract reasoning operations, but as part of the person's lived attempt to make sense of a situation as it unfolds. For heuristic and clinical purposes, this configuration has been colloquially referred to as the "OCD trifecta" (Aardema, 2025a). The components described below articulate how this configuration is organized in practice and how imagined possibilities come to function as meaningful indicators of what is taken to be occurring.

Each component of the OCD trifecta can itself be further differentiated into subordinate reasoning tendencies that specify how distrust of perception, overreliance on imagination, and misapplied relevance are expressed in particular cases (Aardema, 2025a). Detailing these distinctions would exceed the scope of the present paper, which is concerned with clarifying the core inferential configuration through which obsessional doubt is constructed rather than providing a fine-grained taxonomy of its expressions.

3.1.1 Distrust of perception and inner experience — Distrust of perception refers to a systematic devaluation of direct experiential information, including sensory, contextual, and internally generated cues, as a basis for judgment. The difficulty does not lie in perceptual accuracy. Individuals typically report seeing, hearing, remembering, feeling, or internally registering events accurately. What is compromised is confidence in the sufficiency of this information. What is perceived no longer feels adequate to settle the question at hand.

Clients often describe this as a sense that "seeing isn't enough" or that "knowing doesn't feel complete." Even when perception is clear and accessible, it is experienced as provisional or unreliable. This perceived insufficiency creates an opening in which imagined possibilities can gain traction. The person remains aware of what perception and inner experience indicate, but this information lacks the authority to outweigh the imagined scenario. As perceptual confidence weakens, the individual becomes increasingly willing to consider hypothetical explanations.

3.1.2 Overreliance on imagination — As perceptual information is devalued, imagination begins to assume a central epistemic role. The imagined scenario is no longer treated as a distant "what if" but as a meaningful indicator of what could be occurring. Imagination loses its exploratory function and becomes an authoritative guide for judgment.

In this state, imagined possibilities are experienced as informative, compelling, and potentially diagnostic. They shape how the individual interprets sensations, memories, contextual cues, and felt internal states, including emotional and bodily signals. Imagination is not simply vivid; it becomes a primary source of evidence. As imagined meaning gains momentum, it exerts a strong pull on reasoning, drawing attention away from immediate experience and further entrenching the hypothetical frame.

3.1.3 Misapplied relevance — Misapplied relevance occurs when neutral or contextually insignificant cues are interpreted as meaningful within the imagined scenario. Sensations, thoughts, memories, or environmental details are treated as if they might be connected to the feared outcome. This process does not depend on ambiguity in the cues themselves. It arises because the imagined narrative has become the organizing context for interpretation.

Once the hypothetical scenario feels relevant, ordinary elements of experience are assimilated into it. A bodily sensation, a fleeting thought, or a minor irregularity is viewed as potentially significant. These elements acquire importance not because they point to a genuine risk, but because they are interpreted through the lens of the imagined possibility. As more neutral cues are drawn into the narrative, the reasoning system becomes saturated with apparent indicators, reinforcing the sense that the doubt has substance. At this point, relevance is no longer assigned through deliberate evaluation, but through immersion in a developing narrative that structures what feels important, threatening, or unresolved.

3.2 The Feared Possible Self

The reasoning distortions described above do not operate in a content-neutral manner. Within IBA, they preferentially attach to identity-relevant concerns, conceptualized as the feared possible self. The feared self is not treated as a primary causal mechanism in OCD, nor as specific to the disorder. Rather, it provides a thematic context through which hypothetical possibilities acquire personal relevance. It is within this thematic context that reasoning distortions become narratively organized rather than remaining abstract. When distrust of experience, overreliance on imagination, and misapplied relevance are present, imagined scenarios are most likely to be sustained in domains where self-trust is fragile or values are salient. Outside those domains the same distortions tend to dissipate, which is one reason obsessional doubt is selective rather than global.

What gives the feared self this organizing power is not only its content but the function it serves. Feared self-perceptions in OCD are not distinctive to the disorder in their content, and negative self-views of comparable magnitude appear across conditions such as depression. What differs is the mode in which the self-view operates. Where anxiety has been characterized by the activation of a threat mode and depression by a loss mode (Clark, 2016), the mode most specific to OCD, given the function of compulsions in safeguarding the self, appears to be one of protection and preservation (Aardema et al., 2020; Aardema & Wong, 2020). The feared possible self is engaged first and foremost to safeguard the self against perceived sources of corruption, so as to prevent an anticipated harm or loss from occurring.

This preservation mode stands in contrast to hopelessness. Compulsions are performed precisely because the person still holds out the possibility that the feared transformation,

corruption, harm, or loss can be prevented. The compulsive effort is therefore organized around the hope that preservation remains feasible, however costly or ineffective that effort ultimately becomes. It is this defensive orientation, rather than the thematic content alone, that keeps the imagined possibility emotionally live and resistant to dismissal: the doubt matters because something is still felt to be at stake and still thought to be defensible.

These identity-relevant concerns do not remain abstract. They are drawn into a developing storyline about what might be true, what it would imply, and why it matters, with the feared self shaping its direction and urgency from within. That storyline is the mechanism through which imagined possibilities become experientially compelling and the reasoning system is brought to the threshold of obsessional doubt. It is examined next.

3.3 The Obsessional Narrative

Within IBA, obsessional doubt is not conceptualized as an isolated cognitive event but as the outcome of a reasoning process organized in narrative form. This process is referred to as the obsessional narrative. The obsessional narrative constitutes the dynamic sequence through which perceptual information, imagined possibilities, and identity-relevant meaning are integrated into a coherent storyline that culminates in obsessional doubt. The term "narrative" is used here in a strictly functional sense: it denotes the inferential sequencing by which possibilities are linked and granted relevance, not an interpretive account constructed after the fact nor a reflective story about the self.

A central principle of ICBT is that obsessional doubt does not arise directly from stimuli, intrusive thoughts, or discrete appraisals. Instead, it is arrived at through a chain of reasoning that connects what is directly experienced to what is imagined. The obsessional narrative functions as the bridge between an initial perceptual situation and the primary obsessional inference of doubt. It is this narrative organization, rather than any single cognitive judgment, that allows a hypothetical possibility to acquire plausibility and relevance in the present. Within this narrative, the reasoning distortions described earlier are enacted as lived sense-making rather than formal inference.

Obsessional narratives are constructed from both real-world information and imagined meaning. They typically incorporate accurate perceptual details, background knowledge, and prior experiences, but reorganize these elements around a hypothetical concern. As a result, the narrative often feels internally coherent and emotionally convincing, even when it is poorly grounded in present-moment evidence. By the time the individual reaches the obsessional doubt, the narrative has already rendered the imagined scenario experientially compelling.

Importantly, the obsessional narrative is not equivalent to post-hoc elaboration following the emergence of doubt. Rather, it precedes and gives rise to the doubt itself. The narrative organizes attention, relevance, and interpretation in such a way that the elevation of possibility to probability

becomes experientially plausible. In this sense, obsessional doubt is not the starting point of the obsessional process but its first explicit outcome. The narrative represents the lived experience of reasoning through which the doubt is reached, rather than a reflective account constructed after the fact.

This narrative-based account clarifies why obsessional doubt cannot be adequately explained by reference to intrusive thoughts or single appraisals. The obsession does not arise from the stimulus itself, nor from the occurrence of an intrusive cognition, nor from a discrete evaluative belief. It arises from a reasoning process that unfolds over time, linking perception to imagination through a meaningful storyline. Narrative and inference jointly transform ordinary situations into personally significant doubts.

The structure of obsessional narratives is consistent across symptom dimensions, even though their thematic content varies. In checking presentations, a perception such as a closed door becomes embedded in a narrative involving error, responsibility, and future harm. In contamination concerns, clean-looking hands are reorganized within a narrative emphasizing invisible contamination and downstream consequences. In unacceptable-thought presentations, benign mental events are incorporated into narratives concerning intent, character, or moral identity. In each case, the obsessional doubt emerges not from the initial perception, but from the narrative reasoning that connects perception to imagined outcomes.

Table 1 presents three abbreviated illustrative examples of obsessional narratives drawn from checking, contamination, and unacceptable-thought dimensions. These examples are intended to highlight the shared narrative structure through which obsessional doubt is constructed, rather than to catalogue symptom content. Across cases, obsessional narratives link perceptual cues to feared inferences by progressively privileging imagined meaning over direct experiential evidence.

Table 1. Narrative Reasoning Leading to Obsessional Doubt Across Presentations

Presentation	Illustrative Obsessional Narrative
Negligence / Checking	*When I'm leaving my apartment, everything looks fine, but it's possible I missed something. I know I checked the stove, but I also know mistakes happen when you're distracted. If appliances can be left on without noticing, then maybe I didn't really check properly. Even small oversights can cause serious accidents. Each time I leave, I replay what I did, because if I truly did everything correctly, I wouldn't still feel this doubt. Since things can malfunction or be left undone without warning, it's possible something isn't right, and then…*
Contamination	*Everything looks clean, but I know that many everyday products contain chemicals that are harmful over time. Even when labels say they are safe, I've read that toxins can still be present in small amounts. When I clean the counter, I notice the smell and wonder if invisible particles are lingering in the air. If chemicals can stick to surfaces or transfer through touch, then maybe they are still on my hands or spreading through the apartment. I've seen how residues can*

	remain even after washing, so it's possible that I'm carrying contaminants without realizing it. If that's the case, I could be exposing myself or others to something dangerous, and then…
Unacceptable Thoughts	*I'm alone in the kitchen, cooking dinner, chopping vegetables like I always do. The knife looks sharp, and I notice it more than usual. People hurt others with knives. I've heard that anyone can be violent under certain conditions. Even people who seem calm can snap. I remember stories about people who no one expected anything from, until something happened. If it happened to them, it could happen to me. I've been angry before, and once it came up fast and surprised me. If that can happen without warning, maybe there's something in me I don't see. It's possible to do something terrible and not realize it until afterward. So maybe I'm someone who could lose control, and then…*

3.4 Inferential Confusion and the Emergence of Obsessional Doubt

When reasoning distortions have become thematically anchored through the feared possible self and organized into an obsessional narrative, a further shift may occur in which imagined possibilities acquire decisive evidential status. This shift is conceptualized within IBA as IC, the characteristic cognitive state underlying obsessional doubt. IC emerges when distinctions between what is directly experienced and what is merely conceivable lose their functional significance, allowing hypothetical meaning to guide judgment about the present.

At this point, the obsessional narrative no longer operates as a background framework for considering possibilities but becomes the basis for conclusions about what might be occurring. An abstract scenario is elevated to the status of a present-moment probability, despite the absence of direct perceptual or experiential support. The imagined possibility itself constitutes the obsession, marking the moment at which IC becomes experientially explicit and begins to organize attention, evaluation, and action.

In this state, judgment is no longer settled by direct experience, whether sensory, affective, or mnemonic, but by the internal coherence of the imagined scenario. Individuals often report that the doubt "feels real," even when they recognize that it lacks objective plausibility. This sense of reality does not reflect perceptual distortion or global impairment in reasoning. Rather, it reflects a reweighting of evidential sources, in which imagined meaning is granted epistemic priority while experiential information remains available but insufficient to constrain conclusions.

This formulation also clarifies why obsessional experience may present as either persistent questioning or belief-like conviction. IC can support varying degrees of insulation from experiential correction. In some cases, the individual remains overtly doubtful, repeatedly questioning whether a feared scenario might be true. In others, the same inferential processes stabilize the imagined scenario to such an extent that it is experienced as a belief about reality, despite often remaining ego-dystonic. Whether experienced as doubt or conviction, the underlying epistemic shift is the

same: an imagined possibility has been granted unwarranted relevance in the absence of direct evidence.

IC therefore represents both the cognitive crystallization of obsessional doubt and the point at which the obsessional system becomes organized around a hypothetical frame. For IBA, this inferential stance constitutes the primary cognitive target of intervention, as it is the condition under which imagined possibilities begin to function as if they were informative about what is occurring in the present.

3.5 The Self-Reinforcing Inferential Loop

Once IC has become entrenched as obsessional doubt, a subsequent phase of the obsessional process may unfold in which the doubt begins to generate its own apparent evidence. This phase does not precede the formation of obsessional doubt, nor does it contribute to its initial construction. Rather, it reflects what occurs when an imagined possibility has already been stabilized through reasoning distortions, thematic anchoring via the feared possible self, and an obsessional narrative that renders the doubt experientially compelling.

Once the imagined possibility is treated as relevant, emotional, physiological, and cognitive reactions, including shifts in bodily sensation and felt certainty, follow as consequences of this inferential stance. These include not only affective responses (e.g., anxiety, guilt, disgust), but also experiential phenomena associated with immersion in the obsessional narrative, such as phantom thoughts, bodily sensations, and impressionistic experiences of doubt, uncertainty, or felt incompleteness. Phantom experiences refer to internally generated sensations, impressions, or mental events that arise in the absence of corresponding external conditions, such as a felt sense of contamination despite visible cleanliness, a vague bodily signal that "something is wrong," or intrusive impressionistic thoughts that echo the obsessional theme without constituting deliberate reasoning (Aardema, 2025a). Consistent with earlier accounts of imaginal absorption in obsessional states (Aardema & Wu, 2011; Paradisis, Aardema & Wu, 2015), such experiences typically arise through immersion in the obsessional narrative once the doubt has been accepted as relevant: sustained imaginative engagement with the feared scenario generates the sensory and affective texture of that scenario in the absence of corresponding input. They may equally arise through self-testing and monitoring, in which attempts to verify, control, or protect against the feared possibility require the person to simulate it. Scanning for a sensation, urge, or thought reliably produces an experience resembling the very thing the person fears most, much as monitoring for an unwanted thought increases its occurrence (Aardema & O'Connor, 2003). In both routes, the resulting experience originates in the inferential stance rather than in the situation, yet within the obsessional reasoning system it is subsequently misinterpreted as evidence that the doubt itself is valid. This account also reframes a large share of what is ordinarily termed intrusive. Many of the intrusive

thoughts, images, and impressions reported in OCD are not intrusions in the classical sense of neutral mental events that arrive unbidden and are only afterward appraised as significant. They are phantom products of a reasoning process already in motion, generated at this downstream level once the doubt has been granted relevance, and they arrive already charged with meaning rather than acquiring it after the fact (Aardema & O'Connor, 2007; Audet, Aardema, & Moulding, 2016). Their apparently intrusive quality reflects a disconnect: because they are produced by imaginative immersion, self-testing, and monitoring rather than by the current situation, they present as foreign to the person's ordinary experience and are then read as autonomous, and thereby as further confirmation of the very doubt that produced them.

Through reversal of causal direction, internally generated reactions are treated as confirmation of the imagined scenario. Experiential byproducts of immersion that arose as consequences of the doubt are reclassified as indicators of its truth. Sensations, impressions, emotional responses, and compulsive actions become folded back into the inferential system, giving the illusion that the doubt rests on an accumulating evidential base. What began as a conclusion drawn without evidence appears retrospectively justified.

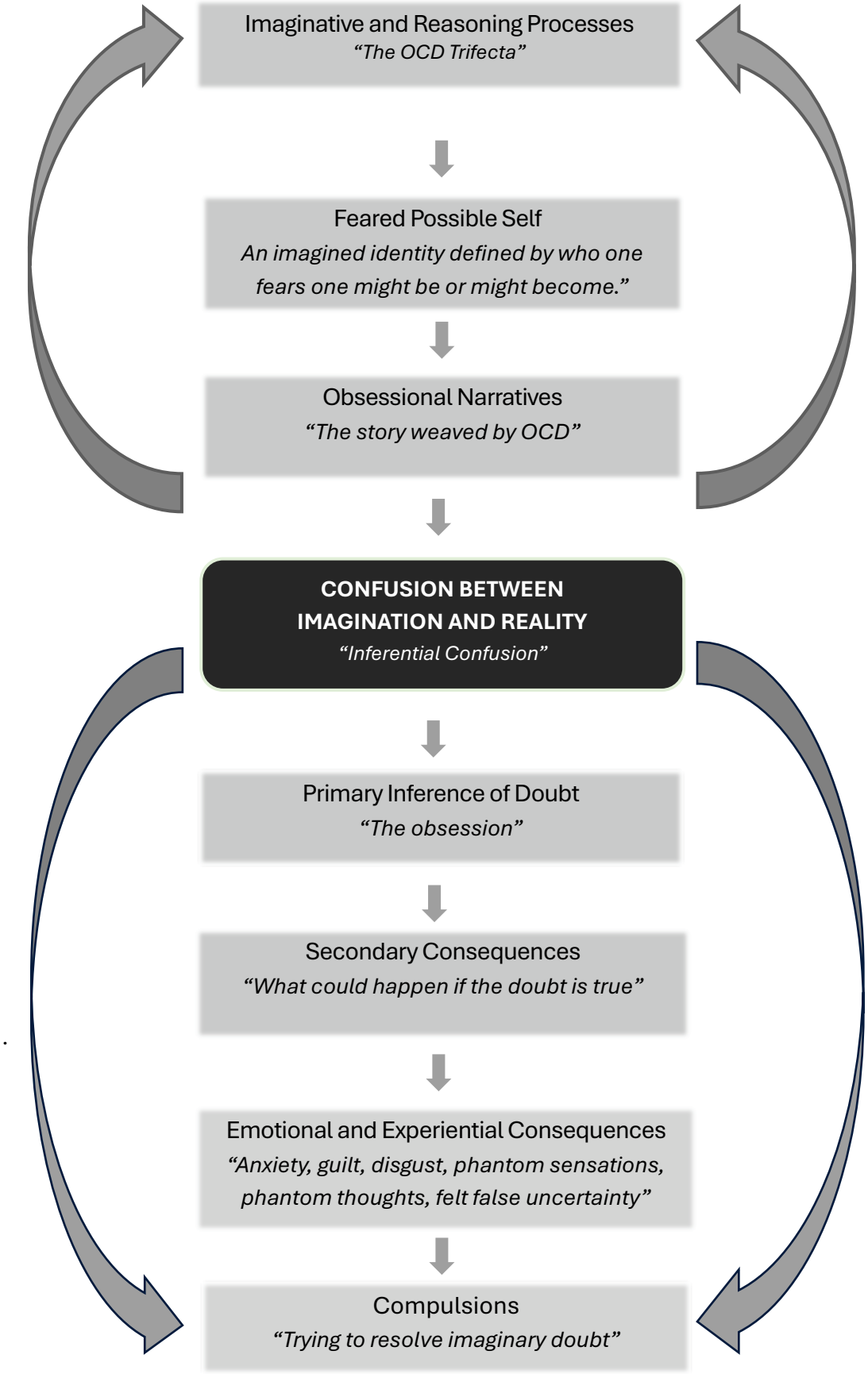
This loop transforms IC from a reasoning disturbance into a self-validating system. Obsessional doubt becomes increasingly credible not because new information has been obtained, but because the effects of the doubt are mistaken for its proof.

3.6 Downstream Consequences and the Focus of ICBT

The downstream phenomena that follow from obsessional doubt arise as logical consequences of treating an imagined scenario as real. These phenomena are heterogeneous in form but unified by their dependence on the prior inferential stance. They do not constitute independent mechanisms within the model. They are derivative expressions of a reasoning system already organized around an imagined threat.

ICBT focuses intervention upstream for this reason. By targeting the inferential processes that construct obsessional doubt and reversing the misinterpretation of downstream reactions as evidence, the organizing principle of the obsessional system is dismantled. When IC is resolved, obsessional doubt loses its epistemic footing, and the emotional and behavioral consequences that depended on it lose their apparent necessity. Figure 1 summarizes the inferential architecture described in Section 3, illustrating how upstream reasoning processes consolidate into IC and give rise to obsessional doubt and its downstream manifestations.

Figure 1. Inferential Architecture of Obsessional Doubt in the Inference-Based Model



This figure illustrates the inferential architecture underlying obsessional doubt as conceptualized within IBA. The model depicts how upstream reasoning distortions, collectively referred to as the OCD trifecta (distrust of direct experience, overreliance on imagination, and misapplied relevance), become thematically anchored through the feared possible self and organized within an obsessional narrative. This narrative represents the lived, experiential form of reasoning through which imagined possibilities are linked to perceptual situations and progressively granted relevance.

IC emerges when the obsessional narrative acquires decisive evidential status, such that imagined possibilities are elevated to present-moment probabilities despite the absence of direct experiential support. At this point, the imagined possibility itself constitutes the primary obsessional doubt.

Downstream consequences follow as logical extensions of this inferential stance and include emotional reactions (e.g., anxiety, guilt, disgust), experiential phenomena (e.g., phantom thoughts, bodily sensations, felt certainty), and behavioral responses (e.g., checking, avoidance, reassurance seeking). These downstream experiences do not function as independent causes of obsessional doubt. Rather, they acquire maintaining power only when their occurrence is misinterpreted as evidence for the doubt through reversal of causal direction, thereby reinforcing IC.

In this way, IC operates both as the outcome of interacting reasoning distortions and as a sustaining organizing principle that maintains obsessional doubt over time. Intervention within ICBT targets this inferential system upstream, with the aim of restoring experiential evidence as the primary basis for judgment and allowing downstream consequences to lose their apparent necessity.

4. Assessment Techniques and Psychometrics

Assessment within IBA focuses on identifying how obsessional doubt is constructed through specific inferential processes rather than on cataloguing symptom content or evaluating threat appraisals. Because IBA conceptualizes OCD as a disturbance in reasoning, its assessment strategy emphasizes how individuals privilege imagination over experience, how relevance is assigned within narrative reasoning, and how identity-linked themes guide inferential drift. Psychometric instruments within this framework are designed to operationalize IC, reasoning style, and feared possible selves, thereby supporting case formulation, treatment planning, and process-sensitive outcome monitoring.

Standardized diagnostic interviews and symptom severity measures remain essential for establishing diagnosis, differential diagnosis, and baseline severity. Widely used instruments assessing obsessive–compulsive symptom dimensions and severity are therefore routinely employed alongside IBA-specific tools. The focus of the present section, however, is on assessment

instruments and procedures that are directly derived from, and theoretically aligned with, the inference-based model.

4.1 Clinical Assessment

Clinical assessment in IBA is organized around reconstructing the emergence of obsessional doubt as a reasoning event, rather than treating obsessions as isolated intrusions or appraisals. The aim is to identify (a) the *form* of the obsessional presentation as it unfolds in experience, (b) the *primary inference of doubt* that initiates the obsessional episode, and (c) the *obsessional narrative* through which perceptual information, imagined possibilities, and self-relevant meaning are integrated into a doubt.

4.1.1 The form and shape of the obsessional presentation — Although obsessions are often defined descriptively as intrusive thoughts, images, or urges, IBA assessment is concerned with how the obsession functions within the broader clinical presentation. In IBA terms, the obsession is a *possibility-based inference* that comes to be treated as experientially relevant in the present. Accordingly, clinical assessment attends to the unfolding pattern through which an ordinary situation becomes reorganized around a hypothetical concern.

A clinically useful starting point is to distinguish between (i) the *precipitating context* (external situations, internal states, or incidental mental events), (ii) the *primary inference of doubt* (the possibility that "might be true" and must be resolved), and (iii) the *secondary elaborations and consequences* that follow once the doubt is granted relevance. These later elements commonly include anticipated outcomes ("if this were true, then…"), emotional reactions (e.g., anxiety, guilt, disgust), and behavioral or cognitive strategies aimed at resolution (e.g., checking, washing, reassurance seeking, mental review). Importantly, within IBA this sequence is not interpreted as a stimulus automatically producing an obsession; rather, the clinical task is to clarify how a possibility came to be treated as informative despite the availability of experiential evidence.

Across symptom dimensions, the primary doubt typically retains a possibility-marked structure (e.g., "maybe," "perhaps," "what if," "could be"), even when conviction is high. In some presentations, the doubt is experienced with belief-like certainty, but clinically it remains anchored in the same inferential stance: a hypothetical scenario has been elevated to experiential relevance in the absence of direct evidence. Obsessions may also be expressed in non-verbal forms (images, impulses, motor-like sensations). In these cases, assessment proceeds by identifying the implicit possibility being entertained (e.g., "what if I lose control?") rather than focusing only on the sensory format of the experience.

4.1.2 Identifying the primary inference of doubt — A central assessment objective in ICBT is to identify the *primary inference of doubt*, because it is the first point at which the obsessional process

becomes explicit and begins to organize attention and action. The primary doubt is not necessarily the most distressing thought, nor the consequence that occupies the most time; it is the inferential "entry point" that must be granted relevance for subsequent fear, elaboration, and neutralizing strategies to occur.

Clinically, primary doubts can often be distinguished from downstream worries by examining their logical dependency structure. Secondary concerns typically take an "if… then…" form, where the primary doubt constitutes the "if" clause and feared consequences constitute the "then" clause (e.g., *if* the stove is on, *then* the house may burn). In many cases, the client's overt preoccupation centers on the feared consequences, while the primary doubt remains implicit. Assessment therefore involves systematically tracing the episode back from overt distress and coping strategies to the minimal inferential claim that must be true for the feared outcome to be relevant.

Two additional clinical markers are commonly useful. First, primary doubts are typically framed as present-oriented uncertainties (sometimes involving immediate past), whereas consequences may extend into the future. Second, primary doubts often involve a breakdown in the settling function of experiential information, such that what is seen, remembered, or felt "does not count" as decisive. Even when the person reports high conviction, the clinician treats the task as identifying the primary inference (the core possibility being entertained) rather than debating its likelihood. This is consistent with the IBA position that obsessional persistence is maintained by *relevance* and *inferential status*, not by probability estimation.

4.1.3. The Obsessional Narrative as a Unit of Clinical Analysis —Once the primary inference of doubt has been identified, clinical assessment in ICBT turns to the reasoning sequence through which that doubt was constructed. This sequence is conceptualized as the obsessional narrative. The obsessional narrative is not a post-hoc elaboration of the doubt, but the lived reasoning process through which imagined possibilities, background knowledge, personal experience, and identity-relevant meaning are woven together to render the doubt experientially plausible.

In practice, the obsessional narrative is elicited by examining the *reasons and justifications* the individual gives for considering the primary doubt as potentially true. Rather than challenging the content of these reasons, assessment focuses on documenting how they accumulate and interact. These reasons frequently include abstract general facts (e.g., "this kind of thing can happen"), personal memories, values or rules, information from authorities or media, and internally generated impressions. While many such elements may be accurate in isolation, their significance within the narrative lies in how they are selectively assembled to support a hypothetical conclusion in the absence of direct evidence.

The obsessional narrative thus represents the experiential form of inferential reasoning in OCD. It is not formal or deliberative reasoning, but a dynamic, story-like process that bridges perception

and imagination. Within this narrative, the feared possible self is implicitly embedded, guiding which possibilities are treated as personally relevant and which imagined outcomes carry affective weight. The reasoning distortions described earlier—distrust of perception, overreliance on imagination, and misapplied relevance—are not assessed as abstract cognitive errors but as operative features of the narrative itself.

This narrative focus distinguishes ICBT from appraisal-based models that locate pathology in the interpretation of intrusive thoughts. In ICBT, the clinical question is not how a thought was evaluated after it occurred, but how reasoning connected an initial situation to a doubt in the first place. By reconstructing the obsessional narrative, clinicians can make explicit the inferential steps through which imagined meaning came to override experiential information, thereby clarifying why the doubt emerged and why it persists.

Understanding the obsessional narrative is therefore foundational for intervention. When the narrative structure and its inferential assumptions are articulated, the epistemic status of the doubt is weakened. This provides the basis for subsequent therapeutic work aimed at restoring experiential grounding and reversing the inferential stance that sustains obsessional doubt.

4.2 Self-Report Measures of Inferential Confusion

Within the inference-based framework, self-report measures are used not to infer latent traits or beliefs, but to index stable tendencies in reasoning style and thematic organization that shape how doubt is constructed.

4.2.1 The Inferential Confusion Questionnaire (ICQ and ICQ-EV) — The Inferential Confusion Questionnaire (ICQ; Aardema et al., 2005) was developed to operationalize the construct of inferential confusion (IC), defined as a reasoning tendency in which imagined possibilities are treated as evidentially relevant in the absence of direct experiential support. The measure is grounded in early inference-based formulations proposing that obsessional doubt reflects a reversal of ordinary evidential ordering, whereby conclusions are derived from hypothetical meaning rather than constrained by perception and contextual knowledge (O'Connor & Robillard, 1999). Its development was further informed by early empirical findings showing that inverse inference was among the strongest predictors of obsessive–compulsive symptoms after controlling for a broad range of related belief domains, using item sets that predated the Obsessive Beliefs Questionnaire (Emmelkamp & Aardema, 1999; OCCWG, 2001).

Item generation for the original ICQ was informed by qualitative analyses of obsessional narratives and clinical descriptions of inferential confusion, with particular emphasis on distrust of sensory information and reliance on imagined danger. The final version of the ICQ consists of 15 items, each rated on a 5-point Likert scale. Psychometric evaluation in clinical and non-clinical

samples demonstrated strong internal consistency ($\alpha \approx .90$) and a robust unidimensional factor structure. Stability analyses over short assessment intervals were consistent with interpreting inferential confusion as a relatively stable reasoning tendency rather than a transient affective state (Aardema et al., 2005).

The Expanded Version of the Inferential Confusion Questionnaire (ICQ-EV; Aardema et al., 2010) was subsequently developed to broaden coverage of inferential tendencies implicated in obsessional doubt and to improve sensitivity across severity levels. The ICQ-EV expands item content to include distrust of experiential information, narrative elaboration, and immersion in hypothetical scenarios. The scale comprises 30 items, rated on a 6-point Likert scale ranging from strongly disagree to strongly agree. Psychometric analyses indicate excellent internal consistency ($\alpha = .96–.97$) and a stable unidimensional factor structure (Aardema et al., 2010).

Across validation studies, ICQ and ICQ-EV scores are consistently elevated in individuals with obsessive–compulsive disorder relative to anxious and non-clinical comparison groups, demonstrate robust associations with obsessive–compulsive symptom severity that are distinguishable from general distress and established obsessive belief domains, and account for incremental variance in obsessive–compulsive symptoms beyond competing constructs in both non-clinical and clinical samples across multiple cultural contexts (Aardema et al., 2005, 2006, 2008, 2010; Wu, Aardema, & O'Connor, 2009; Aardema & Wu, 2011; Yorulmaz, Dirik, Karaali, & Uvez, 2010; Goods, Rees, Egan, & Kane, 2014; Ghorbali, Shairi, & Fesharaki, 2018; Lorens-Aguilar et al., 2020; Aardema, Moulding, Wu, Audet, & Baraby, 2018; Myers & Abramowitz, 2025). In addition, reductions in inferential confusion as measured by the ICQ and ICQ-EV have been associated with treatment-related symptom improvement, contributing uniquely to the prediction of change in obsessive–compulsive symptoms over the course of psychotherapy (Aardema, Emmelkamp, & O'Connor, 2005; Aardema et al., 2017; Ouellet-Courtois, Giguère, & Aardema, 2026).

Taken together, the ICQ and ICQ-EV provide complementary indices of the degree to which reasoning is organized around imagined possibility rather than perceptual sufficiency. Neither measure is designed to assess specific obsessional content or feared outcomes. Instead, they capture the inferential stance through which imagined meaning comes to organize judgment, attention, and action. Both instruments are therefore well suited for intake assessment, case formulation, and repeated measurement across treatment when the clinical aim is to track changes in reasoning processes targeted by inference-based interventions.

4.2.2 Feared Self Measures: FSQ and FSQ-MV — The Feared Self Questionnaire (FSQ; Aardema et al., 2013) and the Feared Self Questionnaire – Multidimensional Version (FSQ-MV; Aardema et al., 2021) extend inference-based assessment beyond reasoning style to capture the identity-linked

themes that organize obsessional narratives. These instruments were developed following conceptual and clinical work indicating that obsessional doubt is preferentially anchored to feared possible selves, that is, imagined identity positions that render certain hypothetical scenarios personally significant and difficult to dismiss (Aardema & O'Connor, 2007).

Within the inference-based framework, feared possible selves are not treated as dispositional traits, latent vulnerabilities, or disorder-specific etiological factors. With the partial exception of obsessions involving unacceptable or taboo themes, where identity concerns are often explicit, feared self representations are not specific to OCD and are not expected to be so (Aardema et al., 2018). Rather, they are understood as meaning-organizing structures that constrain which imagined possibilities acquire relevance once inferential confusion is operative. From this perspective, the feared self does not generate obsessional doubt, but provides the thematic context through which inferential drift becomes selectively expressed.

Item development for the original FSQ drew on thematic analyses of clinical narratives across obsessive–compulsive and related presentations, with particular attention to concerns involving moral identity, responsibility, interpersonal harm, and competence. The questionnaire has been validated in both a 15-item version and a shorter 8-item version, each rated on Likert-type scales assessing the extent to which individuals fear becoming a particular kind of person characterized by perceived defectiveness. Psychometric evaluation demonstrated good internal consistency, a coherent factor structure, and evidence of construct validity across clinical and non-clinical samples (Aardema et al., 2013). FSQ scores were meaningfully associated with obsessive–compulsive symptoms while remaining distinguishable from general self-esteem, negative affect, and established obsessive belief domains.

The FSQ-MV was subsequently developed to address limitations of the original scale by providing a more differentiated assessment of feared self domains. The measure consists of 30 items and factor-analytic studies support a multidimensional structure, with reliably separable domains including a feared corrupted possible self, a feared possible culpable self and a feared possible malformed self (Aardema et al., 2020). The FSQ-MV demonstrated excellent internal consistency across subscales with improved construct specificity, and greater sensitivity to individual differences in feared self domains.

Across studies, feared self representations assessed by the FSQ and FSQ-MV show reliable associations with obsessive–compulsive symptom severity across non-clinical and clinical samples, including OCD and related presentations, with particular relevance to unacceptable-thought dimensions (Aardema et al., 2013; Lorens-Aguilar et al., 2019; Bastan et al., 2023; Ghasemi et al., 2022; Aardema et al., 2021). In addition, consistent with the inference-based framework, converging evidence indicates that feared self representations are clinically consequential primarily insofar as they interact with disturbed inferential reasoning (Aminaee et al., 2024; Aminaee et al., 2025;

Khosravani et al., 2023; Aardema & Wong, 2020). Further, reductions in fear of self during treatment have been associated with symptom improvement, particularly in concerns related to repugnant or unacceptable obsessions; however, whether these effects are contingent on, or mediated by, concurrent changes in IC in clinical outcome remains to be established (Aardema et al., 2019).

When used alongside ICQ measures, the FSQ and FSQ-MV provide a thematic context for interpreting inferential drift and support individualized case formulation. Although these instruments necessarily assess relatively broad feared self domains, experimental and idiographic research indicates that obsessional reasoning in OCD is often organized around more specific, personally idiosyncratic feared selves, activation of which is associated with increases in obsessive–compulsive symptoms (Sauvageau, O'Connor, Dupuis & Aardema, 2020). For this reason, inference-based assessment emphasizes that self-report measures of feared self should be complemented by individualized clinical exploration of personally salient identity concerns as they emerge within the obsessional narrative. Clinically, feared self measures are therefore used less as stand-alone outcome indicators and more as tools for establishing personal relevance, guiding narrative reconstruction, and monitoring shifts in the thematic organization of obsessional doubt over the course of treatment.

4.3 Task-Based and Experimental Measures

In addition to standardized questionnaires, a set of task-based measures of reasoning has been developed to examine inferential processes as they unfold during structured judgment situations. These tasks complement questionnaire-based assessment by placing individuals in controlled reasoning contexts that require active evaluation of experiential information and hypothetical possibilities. Although some tasks rely on explicit responses and self-reported judgments, their primary contribution lies in operationalizing inferential functioning through how conclusions are reached, rather than through retrospective endorsement of beliefs or traits.

4.3.1 The Inference Processes Task (IPT)

The Inference Processes Task (IPT) presents participants with brief, structured scenarios that require choosing between conclusions grounded in experiential cues and conclusions supported primarily by hypothetical possibilities. By manipulating the availability and evidential value of experiential information, the task indexes the degree to which hypothetical meaning is granted priority over perceptual sufficiency during judgment.

Across studies, performance on the IPT indicates that individuals prone to obsessional doubt rely more readily on imagined meaning and disengage from experiential cues earlier than comparison groups, even when perceptual information remains available and unambiguous (Aardema et al., 2009. Further, change in IPT performance over treatment has been shown to covary

with reductions in symptom severity (Aardema & O'Connor, 2012). Subsequent work has shown that IPT performance is meaningfully related to feared self concerns and inferential confusion, supporting its validity as a task-based indicator of inverse inference processes (Jaeger et al., 2015; Nikodijevic et al., 2015; Yang et al., 2021).

The IPT has primarily been used in research and theory-testing contexts, but its task-based format provides a useful complement to self-report measures by indexing inferential tendencies as they are enacted during judgment rather than retrospectively described.

4.3.2 The Dysfunctional Reasoning Processes Task (DRPT) — The Dysfunctional Reasoning Processes Task (DRPT) was developed to assess inferential confusion using task demands that more closely approximate clinically relevant reasoning situations. Unlike the IPT, which contrasts experiential and hypothetical cues in parallel, the DRPT focuses on scenarios in which imagined possibilities directly conflict with explicit experiential evidence. The task examines how individuals integrate, discount, or override perceptual information when hypothetical explanations are available.

Findings consistently show that individuals vulnerable to obsessional doubt treat hypothetical cues as diagnostically relevant even when they contradict clear experiential evidence, a pattern that closely mirrors clinical observations in OCD (Baraby et al., 2021; Baraby, Bourguignon, & Aardema, 2022). Performance on the DRPT is associated with obsessive–compulsive symptom severity, feared self representations, and self-reported inferential confusion, while remaining distinguishable from general distress and obsessive belief domains. Importantly, DRPT indices have demonstrated sensitivity to change in treatment contexts, supporting their utility for monitoring inferential processes over time (Baraby et al., 2022).

Relative to other task-based measures, the DRPT appears particularly well suited for clinical and translational use, as its reasoning demands closely resemble the inferential conflicts encountered in everyday obsessional situations.

4.3.3. *Cognitive Bias Modification Tasks* — A related line of work has employed task-based cognitive bias modification paradigms to examine inferential reasoning under experimentally guided conditions. These procedures systematically train participants to favor experiential over hypothetical conclusions, or vice versa, allowing examination of the malleability of inverse reasoning processes. Using such paradigms, studies have demonstrated that inferential reasoning biases can be modified and that shifts in inferential style are associated with corresponding changes in obsessional doubt (Wong & Grisham, 2017; Wong, Aardema, & Grisham, 2019). Although these tasks are not intended for routine clinical assessment, they provide converging support for inferential confusion as a modifiable reasoning process rather than a fixed cognitive trait.

4.4 Convergence and Complementarity Among Measures

Support for the inference-based assessment framework does not derive from any single instrument, but from convergence across multiple, theoretically aligned operationalizations of inferential reasoning. Self-report measures of inferential confusion (ICQ, ICQ-EV), task-based reasoning assessments (IPT, DRPT), and identity-linked instruments (FSQ, FSQ-MV) demonstrate consistent interrelations while maintaining discriminant validity from obsessive belief domains and negative affect. Together, these measures capture complementary aspects of the same underlying inferential disturbance, spanning dispositional tendencies, enacted reasoning behavior, and thematic organization.

Across studies, ICQ scores show moderate associations with task-based indicators of inferential confusion and dysfunctional reasoning, supporting the claim that self-reported inferential tendencies correspond to observable reasoning patterns elicited under structured judgment conditions (Aardema et al., 2009; Baraby et al., 2021; Wong & Grisham, 2017). This convergence across questionnaire-based and task-based approaches strengthens the interpretation of inferential confusion as a clinically meaningful reasoning process rather than a byproduct of distress or belief endorsement.

Feared self measures further clarify why inferential confusion does not operate in a content-neutral manner. A growing body of work indicates that feared possible selves shape the thematic focus of obsessional reasoning, while inferential confusion determines whether these identity-linked possibilities acquire evidential relevance. Studies integrating feared self measures with ICQ indices and symptom outcomes show that feared self representations are reliably associated with obsessive–compulsive symptoms, but that their clinical impact is frequently mediated or moderated by levels of inferential confusion (Yang et al., 2021; Aminaee et al., 2024; Aminaee et al., 2025). This pattern suggests that identity-linked concerns amplify symptom expression primarily when disturbed inferential processes are already in place.

Converging evidence from task-based paradigms further supports this architecture. Performance on reasoning tasks has been shown to relate not only to inferential confusion but also to feared self representations, indicating that identity-linked meaning structures influence how hypothetical possibilities are evaluated during active judgment (Yang et al., 2021; Baraby et al., 2021). These findings link narrative-level organization, reasoning style, and observable inferential behavior within a single framework, reinforcing the inference-based view that obsessional doubt emerges from the interaction of inferential drift and thematically salient self-related meaning.

Taken together, this pattern of convergence supports a multi-method assessment strategy in which no single measure is treated as definitive. Self-report instruments index enduring inferential and thematic tendencies, task-based measures capture reasoning as it is enacted in context, and clinical narrative assessment identifies personally salient feared selves that organize obsessional relevance. Their complementarity allows for a more precise characterization of obsessional doubt as a disturbance in inferential organization embedded within narrative meaning, rather than as a function of belief content or affective reactivity alone. This convergence allows clinicians to locate intervention targets not at the level of belief content or distress tolerance, but at the level of inferential organization and narrative relevance.

5. Treatment Techniques in Inference-Based Cognitive Behavioral Therapy

The intervention procedures described in this section have been developed and refined across successive formulations of IBA. Core elements of ICBT were first articulated in empirical and conceptual publications (O'Connor & Robillard, 1995, 1999), with the initial treatment guide presented in *Beyond Reasonable Doubt* (O'Connor, Aardema & Pelissier, 2005). These procedures were subsequently elaborated in a dedicated clinician-oriented OCD treatment manual (O'Connor & Aardema, 2012), which formalized assessment strategies, intervention sequencing, and clinical decision-making within the model. More recently, the approach has been further expanded and updated in a two-volume workbook series (Aardema, 2024, 2025a), designed both for structured self-directed use and as an adjunct to therapist-guided treatment.

The present section does not aim to reproduce manualized procedures, session protocols, or specific exercises. Rather, it delineates the principal clinical operations through which ICBT intervenes on obsessional doubt. The focus is on clarifying the conceptual targets of each intervention, their functional role within the inferential model, and their sequencing within treatment, in order to situate ICBT's techniques within a coherent process-focused framework.

5.1 Mapping the Obsessional Sequence

5.1.1 Delineating the observable sequence — Treatment typically begins with a structured delineation of the obsessional sequence, understood as the clinically observable progression through which an initially neutral situation becomes reorganized around a possibility and gives rise to downstream emotional and behavioral consequences. The purpose of this operation is descriptive and analytic rather than explanatory. Its aim is to specify what occurs, and in what order, as the obsessional episode unfolds at the level of manifest experience, prior to any examination of the deeper inferential processes that ultimately sustain obsessional doubt.

This mapping involves distinguishing the precipitating context from subsequent developments, differentiating the primary obsessional inference of doubt from secondary elaborations, and tracing the emergence of distress, urgency, and action tendencies.

5.1.2 Identifying the primary obsessional inference — Particular emphasis is placed on identifying the primary inference of doubt, defined as the minimal possibility that must be granted relevance for feared consequences, emotional reactions, and compulsive responses to become meaningful. Secondary concerns typically take a conditional form and depend logically on this initial inference. Clarifying this dependency structure allows the clinician to locate the inferential entry point of the episode, even when the client's attention is predominantly occupied by downstream consequences.

5.1.3 Clinical function of sequence mapping — For heuristic purposes, this operation corresponds to what is sometimes referred to colloquially as the outer wheel, insofar as it captures the overt architecture of an obsessional episode without yet addressing the inferential mechanisms through which experiential information later comes to be devalued. At this stage, the focus is not on how perception loses evidential authority or how imagination acquires dominance. These processes are addressed subsequently. The present task is to render the episode intelligible as an ordered sequence rather than as an amorphous or chaotic experience.

Clinically, this step serves two primary functions. First, it transforms the client's experience of OCD from one of apparent randomness into a structured and repeatable pattern, thereby reducing phenomenological opacity without offering causal interpretation. Second, it establishes a shared reference frame for later intervention by isolating the primary obsessional inference that organizes the remainder of the sequence. Although this step does not identify the point at which judgment departs from experiential grounding in a strict inferential sense, it provides the necessary scaffolding for subsequent work by clarifying how obsessional doubt functions as the catalyst for the broader symptom cycle.

5.2 Articulating the Obsessional Narrative

5.2.1 From sequence to narrative organization — Once the observable obsessional sequence has been delineated and the primary obsessional inference identified, ICBT turns to the obsessional narrative that precedes and gives rise to the doubt. This step does not involve constructing a narrative de novo, nor introducing content that is not present in the client's experience. Rather, it consists of making explicit a reasoning structure that is already operative prior to the emergence of the doubt and that renders the doubt experientially plausible.

The obsessional narrative is not limited to reflections on the doubt itself. It may culminate in imagined consequences or feared outcomes, which often function as the narrative's climax. However, the primary clinical interest of ICBT lies in the reasoning that leads up to the doubt; how an initially neutral or ambiguous situation is progressively organized so that the doubt becomes justified in the first place.

In clinical practice, individuals with OCD frequently provide reasons and justifications the doubt without prompting. These may be expressed as fragments, background assumptions, or seemingly self-evident considerations rather than as a continuous story. The task at this stage is therefore not creative or interpretive, but analytic: to identify, organize, and examine the justificatory elements that are treated as relevant *before* the doubt is reached.

5.2.2 The obsessional narrative as an inferential bridge —The obsessional narrative is treated as the unit of clinical analysis, rather than any isolated thought, image, or belief. It refers to the lived reasoning process through which the primary doubt is *arrived at*, rather than to appraisals or elaborations that follow its emergence. Functionally, this narrative operates as the inferential bridge between the triggering situation and the primary obsessional doubt, linking an initially neutral or ambiguous context to a conclusion that the individual experiences as warranting concern or resolution.

While imagined consequences may appear toward the end of this narrative and intensify its affective impact, the doubt itself does not arise first and then become justified. Instead, the justificatory narrative is already underway, often implicitly, such that the doubt emerges as its outcome. Because this reasoning process may be rapid, habitual, or partially outside focal awareness, the doubt is often experienced as sudden, intrusive, or unbidden. This phenomenology does not indicate an absence of reasoning, but rather the automaticity with which the narrative has been rehearsed and consolidated over time.

Reconstructing the obsessional narrative clarifies that obsessional doubt is not produced by the triggering situation itself, nor by the mere occurrence of an intrusive mental event, nor by an appraisal applied after the fact. Instead, it emerges from a narrative organization of meaning in which imagined possibilities are linked to perceptual situations, selectively elaborated, and granted relevance, ultimately culminating in the primary doubt.

5.2.3 Preparatory role for subsequent intervention — Making the obsessional narrative explicit serves a preparatory function for subsequent intervention. Once the justificatory structure leading to the doubt is articulated, the inferential assumptions embedded within it become accessible for examination. This allows later therapeutic work to focus on how experiential information was discounted, how imagination acquired evidential status, and how relevance was reassigned before

the doubt and its feared consequences took form, without disputing the client's sincerity, intelligence, or lived experience.

5.3 Developing and Practicing an Alternative Narrative

5.3.1 Inferential orientation of the alternative narrative — Following reconstruction of the obsessional narrative, ICBT introduces a second, structurally distinct clinical operation: the development and practice of an alternative narrative. This intervention is not designed to correct, refute, or counter the obsessional storyline. Its function is to facilitate a shift in inferential position by enabling engagement with a narrative frame that is not organized around hypothetical threat or possibility-based relevance.

The alternative narrative is defined by its inferential orientation rather than by any specific content. It is anchored in present-moment perceptual and contextual information, proceeds without hypothetical elaboration, and does not treat identity-relevant concerns as sources of evidence. In contrast to the obsessional narrative, which derives relevance from what might be the case, the alternative narrative is organized around what is experientially available and ordinarily sufficient to guide judgment in everyday situations.

5.3.2 Clinical engagement and practice — This intervention is deliberately not structured as a comparative exercise. Evaluating the alternative narrative against the obsessional narrative, whether in terms of plausibility, probability, or credibility, would reproduce the same inferential operations that sustain obsessional doubt. For this reason, ICBT avoids debate, reassurance, evidential weighing, or attempts to determine which narrative is more "true." The alternative narrative is engaged with on its own terms, as a self-contained mode of sense-making rather than as a response to the obsessional account.

Clinically, this involves deliberate immersion in the alternative narrative as a complete and coherent account of the situation, without reference to the obsessional frame. Imagination is employed in this process, but its function is generative rather than justificatory. The narrative is allowed to unfold without monitoring its impact on doubt, anxiety, or conviction. Its purpose is not to eliminate uncertainty or produce certainty, but to establish an inferential context in which hypothetical threat no longer organizes relevance or judgment.

5.3.3 Functional role within the treatment sequence — Repeated practice of this operation weakens the automatic coupling between imagined possibility and situational interpretation. Over time, it strengthens the individual's capacity to adopt a non-obsessional inferential stance when

encountering similar situations, thereby reducing the likelihood that obsessional narratives will be recruited as default explanatory frameworks.

Importantly, the alternative narrative is constructed so as to resolve into an ordinary, non-threatening conclusion about the situation, one that does not require further checking, neutralization, or confirmation. This conclusion is not asserted as a corrective belief, nor defended against the obsessional doubt. Rather, it emerges naturally from a narrative organized around perceptual sufficiency and contextual coherence. By repeatedly inhabiting a narrative that culminates in a benign and experientially grounded understanding of the situation, the individual becomes less reliant on hypothetical threat as a basis for judgment. This shift prepares the ground for subsequent interventions aimed at maintaining distance from the obsessional frame in real time and restoring experiential evidence as the primary guide for inference.

5.4 Identifying and Correcting Inferential Confusion Within the Obsessional Narrative

5.4.1 Inferential confusion as a disturbance of evidential order — After the alternative narrative has been established as an available non obsessional perspective, ICBT proceeds to its central analytic and corrective operation: identifying the specific reasoning distortions by which the obsessional narrative generates IC and, on that basis, renders the primary doubt experientially compelling. The clinical aim is not to introduce competing appraisals or to engage the doubt as a probabilistic hypothesis. It is to specify how the narrative achieves its epistemic force by reorganizing evidential priorities and by assigning relevance to imagined content as if it were informative about the present.

This step is often misconstrued as an attempt to "convince" the client that the doubt is false. ICBT is better characterized as an insight and realization oriented procedure: the therapist guides the client in seeing how the doubt is assembled, how its plausibility is manufactured, and how its apparent urgency follows from identifiable distortions in inference rather than from information about the situation. Change is expected to occur through recognition of the narrative's construction, not through argument, reassurance, or persuasion.

5.4.2 Core reasoning operations sustaining obsessional doubt — This shift is expressed through a recurring configuration of reasoning operations that has been described heuristically as a "trifecta": distrust of senses and self, imaginative expansion treated as evidentially relevant, and misapplied relevance in which neutral elements are recruited as apparent confirmation. The clinical value of the trifecta is descriptive and functional. It identifies where, within the narrative, the person departs from ordinary inference and begins to treat possibility as if it carried present tense informational weight.

First, distrust of senses and self refers to the point at which direct experience is reclassified as epistemically inadequate. The difficulty is not that perception, memory, or self-knowledge are

unreliable in any primary sense, but that they are treated as incapable of licensing ordinary conclusions. Individuals can usually report what they saw, felt, intended, or recalled, yet this information is held as merely provisional and does not terminate inquiry. Clinically, intervention targets the moments in the narrative where experience is subjected to an additional standard of confirmation, thereby manufacturing an evidential deficit that renders further imaginative searching appear methodologically warranted.

Second, imaginative expansion becomes clinically relevant when hypothetical content is no longer entertained as simulation but is granted evidential status for present-oriented judgment. The narrative then proceeds from what could be the case rather than being constrained by what is perceptually and contextually available, with attention reorganized toward threat-consistent possibilities and away from ordinarily sufficient, non-threatening information. The therapeutic task is to identify where imagination shifts from exploratory to justificatory use, and how this shift alters relevance assignment such that speculative threat begins to govern inference despite the absence of corroborating experience.

Misapplied relevance and selective confirmation refer to a shift in evidential criteria whereby elements drawn from reality such as facts, memories, values, prior experiences, or authoritative information are selectively recruited to support an imagined conclusion. These elements are not invented; they are typically accurate in isolation. Their distortion lies in their contextual misapplication. Information that is abstract, general, historical, or normatively meaningful is treated as if it bears directly on the present situation, thereby conferring apparent legitimacy on a doubt that lacks perceptual grounding. Within the obsessional narrative, such selectively applied material functions as confirmation rather than as background knowledge, reinforcing the sense that the imagined possibility is situationally real and demands resolution.

5.4.3 Interaction and inferential drift — These operations rarely occur in isolation. Clinically, they function as mutually reinforcing shifts in evidential order that together produce a progressive inferential drift. Initial distrust weakens the settling role of direct experience, creating an evidential gap. Imaginative elaboration then supplies hypothetical content that fills this gap, while misapplied relevance selectively recruits neutral or abstract information as apparent corroboration. With each iteration, imagined possibility acquires increasing plausibility and urgency, despite the absence of new perceptual input.

This interaction produces a gradual escalation rather than a discrete error. What begins as a tentative qualification of experience develops into a self-sustaining inferential structure in which hypothetical threat increasingly governs situational interpretation. The resulting sense of compulsion does not reflect growing objective uncertainty, but a cumulative reorganization of relevance in which imagination comes to function as primary evidence. For this reason, clinical

work does not address each operation independently at the level of content, but focuses on making explicit how their interaction manufactures plausibility and sustains the felt necessity to resolve the doubt.

5.4.4 Reversal of causal direction as a maintaining process — A further maintaining process is often identifiable once IC is established. Reactions that follow from adopting the obsessional inference are then misread as support for it, a pattern described as reversal of causal direction. Anxiety, tension, urgency, guilt, disgust, felt uncertainty, and related experiential phenomena can arise as consequences of immersion in the narrative. Within the obsessional frame, these reactions are reclassified as indicators that something is wrong, thereby providing the narrative with an additional layer of apparent evidence. The clinical target is the reattribution of these experiences to their proper status as downstream consequences of the inferential stance rather than as information about the external situation. This correction is especially important when clients report quasi-sensory or "phantom" experiences, including thoughts, images, urges, or sensations that seem to confirm the obsessional theme, because their vividness can make them function as especially compelling forms of apparent evidence, even though they arise downstream of immersion in the obsessional inference.

5.4.5 Methodological implementation — Methodologically, this step is implemented through structured identification of where each distortion occurs in the client's narrative, followed by formulation of concise statements of insight that capture the inferential error without engaging in reassurance or debate. The intent of such statements is not to produce certainty, but to clarify why the narrative's justificatory structure fails to meet ordinary criteria for evidence-based conclusion. This procedure is then integrated into the client's non obsessional perspective work by incorporating these insights into the alternative narrative, thereby strengthening its epistemic stability without converting it into a reassurance exercise.

5.4.6 Function within the treatment sequence — In the treatment sequence, correction of IC serves two functions. It weakens the internal validity of the obsessional narrative by exposing the reasoning operations that generate its felt plausibility, and it reduces the likelihood that downstream reactions will be recycled as confirmation. This provides the conditions for the subsequent step, which focuses on maintaining distance from the obsessional frame in real time and consolidating a perceptually grounded inferential stance during actual triggering situations.

5.5 Clarifying the Feared Possible Self as a Thematic Anchor

IC does not operate in a content-neutral manner. Obsessional narratives are selective: they repeatedly gravitate toward a circumscribed set of themes, situations, and identity concerns, while leaving the person's everyday reasoning largely intact. This selectivity is clinically informative, as it indicates that OCD is not best understood as a global deficit in logic, memory, perception, or uncertainty tolerance. Rather, it reflects a patterned distortion in how relevance is assigned—specifically, how certain possibilities acquire motivational force because they appear to implicate the self.

5.5.1The feared possible self as a thematic constraint —Within ICBT, the feared possible self refers to an imagined identity-position embedded in the obsessional narrative. It is not treated as a latent trait or an underlying truth about the person, but as a meaning-organizing background that constrains which scenarios are repeatedly selected for elaboration and which doubts feel personally consequential. The feared self explains why particular possibilities feel urgent and emotionally charged, without providing information about whether those possibilities are actually occurring.

This distinction is central: personal salience does not confer evidential status. Identity-relevant content can intensify attention and affect, but it does not establish that a feared scenario is present in the current situation. Making this distinction explicit allows the person to recognize that obsessional urgency arises from how meaning is organized, rather than from present-moment indicators.

5.5.2 The real self as the referent outside obsessional organization —The feared possible self gains traction by displacing attention away from the person's lived, enacted self, the real self as it is expressed in ordinary actions, relationships, and commitments. OCD is characteristically selective in this regard: it targets what is most personally meaningful, because those domains carry the greatest affective weight. A fear of being immoral typically arises in someone for whom morality is deeply central; a fear of being dangerous in someone who values safety and responsibility; a fear of being deceptive in someone who cares about integrity. The feared self is therefore not random, but a distorted projection of what matters most.

From an ICBT perspective, reconnecting with the real self does not involve constructing a new identity or engaging in prolonged self-analysis. The real self is already observable in patterns of behavior that continue to occur outside obsessional engagement. Everyday actions, showing care, keeping commitments, responding to others, participating in life, reflect the real self precisely because they are not organized around hypothetical identity threats. For this reason, the alternative narrative naturally draws on the real self: it is grounded in present contextual information and ordinary standards of knowing, rather than in imagined implications about who one might be.

At the same time, attention is directed away from actions whose primary function is to manage obsessional doubt. Behaviors performed to neutralize fear or prevent a feared identity from being confirmed remain part of the obsessional organization, even when they resemble valued traits such as responsibility or conscientiousness. By contrast, actions that arise spontaneously in daily life provide a more stable referent for the real self.

5.5.3 Selectivity of doubt and preservation of ordinary reasoning — The selective distribution of obsessional doubt further clarifies the nature of IC. Individuals with OCD do not doubt indiscriminately. Across most domains of life, they rely on perception, memory, and contextual understanding without extended scrutiny or repetitive checking. This contrast shows that the capacity for ordinary reasoning remains intact. What changes under obsessional conditions is not reasoning ability per se, but the inferential stance through which hypothetical possibilities are granted relevance.

ICBT uses this selectivity as a point of observation rather than argument. The aim is to help the person notice the conditions under which doubt becomes compelling: when identity relevance is introduced, when experiential information is discounted, and when imagination shifts from exploratory to justificatory use. Selectivity thus reveals that obsessional doubt is not a response to genuine uncertainty, but an outcome of how meaning and relevance have been reorganized around feared-self themes.

5.5.4 Clinical function of this step — Within the treatment sequence, clarifying both the feared possible self and the real self serves a stabilizing function. It makes visible the thematic structure that organizes obsessional relevance while re-establishing contact with a lived identity that exists independently of obsessional doubt. This step does not aim to resolve identity questions, but to reposition judgment within a narrative frame that is no longer governed by hypothetical threat. In doing so, it supports disengagement from obsessional inference and prepares the ground for subsequent work on inferential correction without entanglement in identity-based doubt.

5.6 Staying Out of the Obsessional Frame ("The OCD Bubble")

Before introducing real-time corrective procedures, ICBT emphasizes learning to remain outside the immersive obsessional frame, often described clinically as the "OCD bubble." This step concerns early detection and prevention of narrative absorption rather than modification of narrative content. Its purpose is to preserve a perceptually grounded inferential stance long enough for subsequent corrective operations to be usable in vivo.

5.6.1 The obsessional frame as a shift in inferential stance — The obsessional frame is not simply "having a thought" or "feeling anxious." It is a distinctive mode of sense-making in which the person tacitly relocates from present, contextual reality into an imagined-but-compelling scenario. In this frame, hypothetical threat is experienced as if it were situationally informative. Direct experiential cues remain available, but their settling function is weakened; the narrative begins to feel more "real" than what is currently observed.

Phenomenologically, the OCD bubble resembles an overlay: an imaginative simulation is projected onto the present, so that what is merely possible acquires the felt status of what is happening. The person is no longer simply considering a scenario; they are orienting within it.

5.6.2 Markers of entry: how the bubble forms in real time — Because entry is often subtle, treatment focuses on identifying early markers that reliably precede full immersion. Common indicators include:

- **Attention capture:** a narrowing of focus onto a single possibility, accompanied by reduced access to alternative interpretations.
- **Spatiotemporal displacement:** the sense of being pulled "elsewhere" (into a future catastrophe, a past event, or an unseen layer of reality), even while physically remaining in the present.
- **Relevance reclassification:** a shift in which ordinary cues (perception, context, routine knowledge) are treated as insufficient, while speculative cues are treated as pressing.
- **Identity foregrounding:** the feared possible self becomes the implicit referent, so that the question is no longer "what is happening?" but "what does this mean about me?"
- **Urgency as a signal:** a felt need to resolve, check, neutralize, or make certain, emerging before any new external information is obtained.

Clinically, these markers are treated as signs of frame transition rather than as evidence about the feared scenario.

5.6.3 Carrier thoughts and the transition into absorption — In many cases, the movement into the OCD bubble is mediated by brief, seemingly minor "carrier thoughts", which function as momentary justifications that bridge an ordinary situation to the primary doubt. These are not the primary obsessional inference itself, but the pre-doubt micro-steps that make the inference feel warranted (e.g., "maybe you missed something," "it's possible," "you can't be sure," "what if this is different"). Their significance lies in function: they transport the person from perceptual sufficiency to speculative relevance.

Learning to identify carrier thoughts provides a practical entry point for prevention, because they occur earlier than the primary doubt and often recur in a stable, recognizable form across episodes.

5.6.4 Clinical operation: interrupting absorption before dominance — The therapeutic task is to notice the earliest signs of entry and interrupt the transition before the obsessional narrative achieves situational dominance. This is not accomplished by disproving the imagined scenario, but by preventing the shift in evidential ordering in which imagination begins to govern judgment.

Practically, this involves:

1. **Labeling frame entry** (e.g., "I'm crossing into the bubble" / "this is the narrative taking over").
2. **Locating the hinge point** (the carrier thought or the moment experiential cues were downgraded).
3. **Re-centering on present contextual sufficiency** (returning to what is ordinarily adequate to guide action without extended scrutiny).
4. **Withholding narrative participation** (not elaborating, testing, or extending the imagined scenario once it has been recognized as a frame shift).

Over repeated practice, the person becomes more sensitive to the onset conditions of absorption and more able to remain in the non-obsessional stance long enough for other interventions to be applied.

In the treatment sequence, this step serves as a containment strategy for inferential drift. It stabilizes the person's inferential position, reduces the likelihood of full narrative capture, and prepares the ground for real-time application of inferential correction during triggering situations.

5.7 Reality Sensing, Re-establishing Experiential Grounding and Relapse Prevention

Reality sensing constitutes the primary in-the-moment corrective procedure in ICBT. It is not designed to habituate anxiety, test catastrophic predictions, or cultivate tolerance of uncertainty. Its function is to restore experiential grounding by reorienting judgment toward directly available sensory, contextual, and self-referential information, while withdrawing evidential authority from narrative-derived content. In so doing, it corrects inferential drift in real time by reinstating experience as the primary evidential constraint on judgment.

5.7.1 Conceptual rationale: restoring the evidential order — Obsessional doubt characteristically exceeds what is given in the here-and-now. It does not simply register a neutral uncertainty; it

reorganizes the situation around a possibility that is not licensed by present evidence and that often contradicts what is directly available to perception. Clean hands are treated as potentially contaminated, a locked door as possibly unlocked, a completed act as insufficiently completed, a benign internal state as potentially diagnostic of a feared identity or intention. The defining feature is not the presence of imagination per se, but the elevation of imagination to evidential authority and the corresponding demotion of perception and contextual knowing.

Reality sensing addresses this shift at the level where it matters clinically: the moment the person's evidential stance moves from experiential sufficiency to hypothetical supplementation. It is therefore best understood as an epistemic correction rather than an affect-management strategy. Experience is restored to its ordinary role as settling evidence, sufficient to guide action in the same way it does across non-obsessional domains of functioning.

5.7.2 Reality sensing as an in-the-moment operation — Within ICBT, reality sensing is implemented as an operation of re-grounding rather than a procedure of evaluation. Its core movement is away from narrative immersion and back toward the present situation as it is currently disclosed. This includes re-establishing spatiotemporal context, recontacting direct sensory and situational information, and differentiating what is experienced from what is inferred through the obsessional frame.

Crucially, the function of reality sensing is not to "prove" reality to the client, nor to provide reassurance, nor to resolve philosophical doubt. It is to re-position judgment so that the evidential status of experience is reinstated without negotiation. When this occurs, the ordinary, non-threatening conclusion of the situation is not manufactured or argued for; it becomes available again because the inferential rules of the obsessional frame are no longer governing relevance.

5.7.3 Relationship to the obsessional narrative and the OCD bubble — Reality sensing is best located in sequence as a downstream consolidation of upstream work. The obsessional narrative, as reconstructed earlier in treatment, clarifies how the doubt is reached through justificatory steps that precede it. The bubble work clarifies what happens once that doubt is granted relevance: the person becomes absorbed in a simulated world in which imagined threat is treated as situationally informative. Reality sensing functions as the in-the-moment pivot out of that simulation. The sequencing matters: reality sensing presupposes that experiential cues still retain enough authority to guide inference, and where the obsessional frame has already become dominant, attempts to re-ground are readily absorbed into the narrative as further checking or confirmation-seeking. Staying out of the bubble therefore functions as a prerequisite condition, protecting the evidential status of perception and context so that in-the-moment correction can operate.

From this vantage point, reality sensing is not an isolated technique but a continuation of the inferential logic of ICBT. Earlier interventions establish that obsessional doubt is produced by a narrative organization that devalues experience and promotes possibility to evidence. Reality sensing then operationalizes the alternative stance in vivo by restoring the person's default evidential ecology: perception and contextual knowledge settle the situation, and imagination returns to its ordinary role as optional, non-authoritative simulation.

5.7.4 Differentiation from ERP: similarity of form, difference of function — Although reality sensing can superficially resemble response prevention, because both may involve not performing compulsive acts in triggering situations, their conceptual targets and mechanisms are distinct. ERP typically intervenes after obsessional doubt is already taken as relevant, with the aim of altering fear learning through exposure, habituation, inhibitory learning, and/or increased tolerance of anxiety and uncertainty. The person is asked to remain in contact with feared cues while refraining from neutralization, allowing emotional learning to occur over repeated trials.

Reality sensing, by contrast, is not organized around fear confrontation or distress tolerance. It intervenes earlier, at the level of evidential stance, by withdrawing the premise that makes endurance necessary. The situation is not treated as a test of whether catastrophe will occur, nor is uncertainty treated as something to be carried indefinitely. Rather, the obsessional doubt is treated as a narrative product that has displaced experience, and the therapeutic action consists of reinstating experiential constraint so that the doubt loses jurisdiction.

This distinction is not semantic. Two interventions may look behaviorally similar (e.g., leaving without rechecking), yet be therapeutically opposite depending on inferential position. In an exposure logic, the person may leave while maintaining the doubt as a live possibility and "tolerating" its presence. In a reality-sensing logic, the person leaves because the situation is already settled by ordinary evidence, and the doubt is treated as a narrative intrusion rather than as an open question. The difference is not in the muscle of restraint; it is in the epistemic frame from which action proceeds.

5.7.5 Consolidation and relapse prevention: maintaining experiential priority — Relapse prevention within an inference-based framework is not a program of vigilance against intrusive content. Intrusions may recur without clinical significance. The relevant risk is the reinstatement of IC: the re-emergence of an evidential order in which imagination again outranks experience, and narrative-based relevance again governs judgment.

From this standpoint, relapse is best understood as a shift in stance rather than the return of particular thoughts. The protective factor is not constant monitoring of symptoms, but consolidation of the experiential criterion of knowing so that obsessional material, when it appears, is less likely

to be granted evidential status. Reality sensing contributes directly to this consolidation by repeatedly enacting the same epistemic correction across contexts, thereby strengthening the person's capacity to remain oriented to the present without narrative supplementation.

5.7.6 Endpoint: original experience and the restoration of ease — The longer-term aim of ICBT is not indefinite technique use, but restoration of what can be described as original experience: a direct, ordinary, unforced engagement with reality in which perception, contextual knowledge, and lived self-reference settle action without special effort. In this condition, OCD-targeted situations cease to function as exceptions. They are encountered and completed under the same evidential rules that govern the rest of life.

As reality sensing becomes integrated, it increasingly disappears as a distinct practice. The person is no longer "applying a method" so much as living from an evidential stance that was always intact outside obsessional capture. When this stance is stable, the obsessional frame has little opportunity to form: imagined possibilities may arise, but they do not reorganize relevance, they do not displace experience, and they do not require resolution. The treatment endpoint is therefore not the heroic management of doubt, but the return of ease, where life proceeds on the basis of what is already known in the moment, and OCD loses its last foothold: the assumption that something must be resolved.

6. Empirical Support and Treatment Outcomes in ICBT

Since its inception, IBA has generated a coherent and converging empirical literature establishing the validity of its core constructs and theoretical assumptions. Cross-sectional research has consistently documented the specificity of IC to obsessive–compulsive disorder (Aardema et al., 2005; Aardema et al., 2010; Baraby, et al, 2022; Yorulmaz et al, 2010; Wong, Aardema, & Grisham, 2019). These studies further demonstrate robust associations between IC and obsessive–compulsive symptomatology, with IC accounting for unique variance in OCD symptoms beyond other cognitive factors and negative affective states (Aardema & Wu, 2011; Aardema et al., 2006; Aardema et al., 2008; Aardema et al., 2018; Ghorbali et al., 2018; Myers et al., 2024; Noruzi et al., 2019; Ouellet-Courtois et al., 2020; Paradisis et al., 2015; Polman et al., 2011; Wu et al., 2009).

Complementary lines of research have clarified key phenomenological features of obsessional doubt central to the IBA model, including the characteristic emergence of intrusions in the absence of direct experiential evidence (Audet & Aardema, 2016; Audet et al., 2020; Lorens-Aguilar et al., 2021), as well as the role of feared possible selves in organizing inferential processes and predicting symptom severity (Aardema et al., 2013; Aardema et al., 2018; Aardema et al., 2021; Ghasemi et al., 2022; Khosravani et al., 2023; Lorens-Aguilar et al., 2019; Melli et al., 2016; Sauvageau et al., 2020; Wong et al., 2020).

Consistent with the model's central assumptions, multiple studies further indicate that IC occupies a pivotal position in the relationship between obsessional content and symptom expression (Aminaee et al., 2024; Jaeger et al., 2015; Nikodijevic et al., 2015; Yang et al., 2021). Experimental paradigms and task-based investigations provide preliminary evidence supporting a causal role for IC in the generation and maintenance of obsessional doubt (Aardema et al., 2009; Baraby et al., 2021; Baraby et al., 2022; Ouellet-Courtois et al., 2021; Wong & Grisham, 2017).

The present section does not aim to synthesize this broader literature in full, which has been reviewed elsewhere (Godwin et al., 2020; Jaeger et al., 2021; Julien et al., 2016; Myers & Abramowitz, 2025; cf. Aardema, 2026). Rather, it provides the empirical context necessary for interpreting outcome and process research on ICBT. The sections that follow examine whether ICBT produces reliable and sustained clinical improvement in obsessive–compulsive disorder and whether therapeutic change occurs through the inferential mechanisms specified by the model.

6.1 Clinical Trials of ICBT

The earliest controlled evaluations of IBA examined whether direct intervention on IC could produce clinical outcomes comparable to established cognitive–behavioral treatments for obsessive–compulsive disorder. In a randomized controlled trial, O'Connor et al. (2005) compared ICBT with standard CBT protocols incorporating exposure-based and appraisal-focused components. Across conditions, participants demonstrated significant reductions in obsessive–compulsive symptoms, with no statistically significant differences between treatment arms. These findings established initial clinical equivalence rather than superiority, indicating that modifying inferential processes can yield symptom improvement on par with prevailing cognitive–behavioral approaches.

A subsequent randomized controlled trial conducted independently extended these findings to individuals characterized by poor insight and elevated overvalued ideation (Visser et al., 2015). In this 24-session comparison of ICBT and standard CBT, both treatments again produced significant symptom reduction. A differential pattern emerged, however, in which participants with higher levels of overvalued ideation showed greater improvement in ICBT. Although this effect was identified post hoc and should therefore be interpreted cautiously, it is theoretically informative. Overvalued ideation reflects a more elaborated and internally coherent inferential structure supporting obsessional doubt, and the observed pattern is consistent with the model's emphasis on intervening at the level of reasoning organization rather than belief endorsement or fear modulation.

Evidence from a large-scale open trial further supports the clinical viability of IBA across heterogeneous OCD presentations. Aardema, O'Connor, Delorme, & Audet (2017) reported significant reductions in obsessive–compulsive symptoms following ICBT across multiple symptom

subtypes, including individuals previously considered treatment resistant. Outcomes in the treated group were significantly superior to those observed in a naturalistic waitlist control condition. Notably, treatment response did not vary as a function of overvalued ideation, indicating that the approach remained effective even when obsessional doubt was held with high subjective conviction. Although the absence of randomization constrains causal inference, the consistency of improvement across symptom domains and levels of insight provides convergent support for the model's applicability beyond narrowly defined clinical subgroups.

A later multisite randomized controlled trial provides a more direct test of generalizability under coordinated, multi-team conditions. In a parallel-group multisite RCT with 6-month follow-up, Aardema et al. (2022) compared ICBT with standard CBT (incl. ERP) and an adapted mindfulness-based stress reduction (MBSR) intervention, with equivalent treatment delivery conditions across modalities. Participants were recruited at two sites (Montreal and Gatineau), with no significant baseline differences between recruitment sites, and linear mixed models indicated no significant main or interaction effects attributable to site. Across all three conditions, there were statistically significant reductions on the primary outcome (Y-BOCS) from pre- to post-treatment, and there was no significant time-by-treatment interaction at any assessment point for Y-BOCS, indicating broadly comparable symptom reduction across modalities. In secondary analyses, ICBT showed significant improvement across all symptom dimensions assessed, while A-CBT and MBSR showed more circumscribed within-condition improvements on selected dimensions; between-treatment contrasts on symptom dimensions at post-treatment were not significant.

More recently, a multisite randomized controlled non-inferiority trial compared ICBT with standard CBT across several treatment centers (Wolf et al., 2024). Both conditions demonstrated statistically significant within-group improvements on primary and secondary outcome measures. No significant between-group differences in symptom severity were observed; however, non-inferiority could not be conclusively established, as confidence intervals exceeded the predefined threshold. The authors noted several methodological factors likely contributing to this outcome, most notably a marked imbalance in therapist experience and treatment allegiance. Therapists delivering standard CBT had substantially greater prior experience, whereas those delivering ICBT were newly trained in the model. Such asymmetries represent a meaningful constraint in psychotherapy trials, where therapist expertise is known to influence outcome. Importantly, despite this asymmetry, and with no significant between-group difference in dropout rates, self-report measures indicated significantly greater treatment acceptability for I-CBT than for standard CBT.

Evidence from a more recent non-inferiority trial, presented at a scientific conference but not yet published, further informs this issue (Aardema, 2025b). Conducted under conditions of balanced therapist experience and treatment allegiance, the study found that ICBT met non-inferiority criteria relative to ERP on post-treatment OCD symptom severity, indicating comparable

efficacy under methodologically equivalent conditions. In addition to symptom outcomes, the study examined treatment-related experiential indices, including acceptability, perceived ease of adherence, and treatment-related distress. As hypothesized, ICBT was associated with higher overall acceptability and ease of adherence, whereas ERP was associated with greater treatment-related distress, which increased over the course of therapy. Acceptability ratings in the ERP condition declined over time, although willingness to recommend the treatment to others did not differ between conditions.

Most recently, a network meta-analysis of 68 randomized controlled trials involving 4,019 participants compared seven psychotherapeutic approaches for OCD, including the inference-based approach, and found no significant differences among psychotherapies in either efficacy or acceptability (Wang et al., 2026). Although IBA was numerically ranked highest for acceptability, the differences between psychotherapies were not statistically significant and the ranking should therefore be interpreted cautiously. In that analysis, acceptability was operationalized as all-cause treatment dropout and should therefore be distinguished from the more direct, self-reported experiential measures of acceptability, ease of adherence, and treatment-related distress examined in the studies described above. Even so, the findings are broadly consistent with the clinical trial literature: IBA showed no evidence of inferior effectiveness or acceptability relative to established alternatives, while its numerical ranking on dropout-based acceptability was directionally consistent with the more favorable experiential ratings observed in direct comparisons.

These findings do not imply superiority of one model over another. They do, however, underscore the importance of distinguishing symptom change from the experiential and procedural demands through which change is achieved. Exposure-based protocols rely centrally on systematic confrontation with feared stimuli and the toleration of escalating distress, whereas ICBT does not require exposure or fear confrontation as a mechanism of action. Instead, it aims to reduce the credibility of the obsessional narrative upstream of sustained emotional activation by correcting inferential drift. When treatments are similarly efficacious on symptom outcomes, such differences are not merely secondary but clinically relevant in their own right. They bear directly on treatment preference, accessibility, and uptake, and justify the availability of ICBT as a viable first-line option alongside exposure-based approaches, rather than as an intervention reserved for a specific subgroup.

Beyond OCD, early trials have explored the application of ICBT to related conditions characterized by obsessional doubt and narrative-driven reasoning. Open trials have reported symptom improvement in compulsive hoarding (Blais, Bodryzlova, Aardema, & O'Connor, 2016) and body dysmorphic disorder (Taillon, O'Connor, Dupuis, & Lavoie, 2013). In addition, a randomized evaluation of ICBT delivered in self-help format demonstrated significant symptom reductions relative to waitlist controls (Moritz, Dietl, Kersten, Aardema, & O'Connor, 2015),

suggesting that core elements of the model may be adaptable across formats under appropriate conditions.

Taken together, available trials indicate that ICBT reliably produces symptom improvement comparable to established cognitive–behavioral treatments and that these effects have now been demonstrated across independent laboratories, clinical settings, and delivery formats. While the overall evidence base remains smaller than that for ERP, the accumulated findings do not support the assumption that ERP is categorically more effective than alternative cognitive–behavioral models for OCD. Instead, they point toward differential indications and treatment affordances, particularly for individuals whose symptoms are sustained by elaborated inferential narratives or for whom fear-confrontation procedures present a barrier to treatment engagement.

From this perspective, the availability of multiple evidence-based approaches may be less a matter of competition than of coverage. Expanding the range of viable interventions has the potential to improve overall outcomes by increasing the likelihood that individuals with OCD can access and remain engaged in a treatment aligned with the structure of their difficulties. This shift from asking which treatment is best to examining for whom and under what conditions a given treatment is most effective provides a natural bridge to the examination of mechanisms of change addressed in the following section.

6.2 Evidence Supporting Change in Inferential Confusion as the Mechanism of Improvement

Across the clinical outcome literature, a generally consistent process-level finding is that improvement in obsessive–compulsive symptoms covaries with reductions in IC. Early treatment-process studies already indicated that change in IC tracks clinical response: responders show larger pre–post reductions than non-responders, and change in IC covaries with change in clinician-rated and self-reported OCD severity, independently of changes in anxiety and depression (Aardema, Emmelkamp, & O'Connor, 2005). This pattern suggested from the outset that inferential change is not merely an epiphenomenon of affect reduction, but is specifically linked to obsessive–compulsive improvement.

Subsequent work extended these observations beyond self-report by examining inferential change using longitudinal and task-based methodologies. In an open clinical trial, reductions in IC emerged as a unique predictor of post-treatment symptom severity even after accounting for baseline OCD severity and changes in anxiety and depressive symptoms, accounting for more variance in outcome than obsessive belief domains (Aardema et al., 2017). Parallel task-based studies operationalizing inferential processes directly showed that treatment was accompanied by a shift in how doubt is resolved, with greater reliance on immediately available perceptual information and diminished persistence of hypothetical elaboration (Aardema & O'Connor, 2012). Improvement on these tasks covaried with clinical change and with reductions in IC, but not with

changes in negative affect, supporting the view that therapeutic progress involves a reorganization of reasoning rather than a simple change in belief endorsement or emotional state.

One qualification to this otherwise consistent pattern comes from a study in which improvement on the DRPT predicted outcome, whereas change on the ICQ-EV did not reach significance (Baraby et al., 2022). This represents the only clear inconsistency in the literature linking IC to treatment response. The sample in that study was relatively small, and the divergence likely reflects differential sensitivity between task-based and self-report indices rather than a substantive theoretical contradiction. Notably, even in this study, improvement in dysfunctional reasoning predicted outcome regardless of whether inferential processes were explicitly targeted, reinforcing the association between inferential change and clinical improvement.

The strongest convergent evidence comes from a multicenter randomized trial comparing CBT with ERP, ICBT, and mindfulness-based stress reduction, in which IC, obsessive belief domains, and mindfulness were evaluated within the same analytic framework (Ouellet-Courtois, Bouchard, Giguère, Koszycki, Lavoie & Aardema, 2026). Although all cognitive variables showed associations with symptom improvement, only IC uniquely predicted symptom improvement over time. This association was consistent across treatment modalities and remained robust after controlling for anxiety, depression, and medication status.

This pattern is theoretically consequential because it bears directly on a longstanding ambiguity in cognitive accounts of OCD concerning the status of content-level beliefs as mechanisms of change. Within appraisal-based frameworks, domains such as responsibility, threat overestimation, or importance of thoughts have often been treated as proximal drivers of symptom persistence. However, the broader obsessive-beliefs mechanism literature has yielded mixed and uneven support for this position. Associations between belief change and symptom improvement are frequently modest, vary by belief domain, and often fail to demonstrate temporal precedence or mediation once general distress is taken into account (Adams et al., 2012; Wilhelm et al., 2015; Su et al., 2016; Wolters et al., 2019; see also Aardema et al., 2017). Against this backdrop, the multi-condition finding that obsessive belief domains can shift over the course of treatment without reliably predicting symptom change, whereas IC predicts symptom change even when affective improvement is modeled concurrently, constrains what can reasonably be regarded as "central" among candidate cognitive targets. This does not imply that obsessive beliefs are clinically irrelevant, but it does weaken the claim that their modification constitutes a primary driver of symptom reduction across therapeutic approaches.

The implication for inference-based theory is therefore more specific than the general assertion that "reasoning matters." If reductions in IC covary with symptom improvement across exposure-based, inference-based, and mindfulness-based interventions, then IC is better conceptualized as a treatment-transcendent process linked to outcome rather than as a mechanism unique to ICBT.

One parsimonious interpretation is that distinct interventions may converge on reducing IC through different routes. ICBT targets the inferential drift explicitly by examining how imagined possibilities come to be treated as evidentially relevant. Exposure-based interventions may weaken the same process indirectly, insofar as repeated confrontation with disconfirming here-and-now evidence under response prevention reduces investment in hypothetical scenarios. Mindfulness-based approaches may, under certain conditions, limit elaborative engagement with imagined possibilities by altering the individual's relationship to internally generated content, even when dispositional mindfulness scores do not show marked change on global self-report indices. This interpretation accommodates the observed cross-modality association while leaving open the question of causal primacy.

Most recently, functional neuroimaging findings have provided preliminary evidence that I-CBT and CBT-ERP may achieve symptom improvement through partly distinct neural mechanisms (Vriend, Broekhuizen, Wolf, van Oppen, van den Heuvel &, Visser, 2026). Although both treatments were associated with overlapping pre-to-post changes in brain activity during emotional processing, symptom reduction showed different patterns across conditions, with improvement following I-CBT associated particularly with increased medial prefrontal activation.

Taken together, the mechanism-oriented evidence supports a restrained but nontrivial conclusion. Across multiple clinical and experimental operationalizations, reductions in IC show a comparatively consistent and specific relationship with symptomatic improvement in OCD, including when modeled alongside competing candidate processes and general negative affect. This pattern does not establish IC as the sole mechanism of change, nor does it exclude the contribution of learning-based or affective processes. It does, however, provide an empirically constrained rationale for treating IC as a leading candidate mechanism within ICBT, and for investigating whether it functions as a causal driver, a facilitating condition for other change processes, or a common pathway through which distinct therapeutic procedures exert their effects.

7. Limitations, Safeguards, and Practical Considerations

The preceding sections articulate a coherent inferential model of obsessional doubt, outline a structured intervention derived from that model, and review converging evidence for both clinical efficacy and process-level change. The purpose of the present section is not to weaken those claims, but to specify their boundaries. This includes clarifying where empirical support remains incomplete, identifying points at which the model may be misunderstood or misapplied, and addressing longstanding concerns regarding iatrogenic effects in the treatment of obsessive–compulsive disorder. These considerations are not ancillary. Given OCD's distinctive capacity to

assimilate therapeutic procedures into its own inferential system, safeguards are central to the responsible application of any cognitive–behavioral intervention.

7.1 OCD Heterogeneity and Variation in Inferential Presentation

A persistent challenge for all OCD models is the marked heterogeneity of obsessional presentations. Individuals differ widely in the thematic content of obsessions, the degree of narrative elaboration, the level of insight or conviction, and the extent to which identity-relevant concerns are implicated. Some presentations are characterized by highly elaborated imaginative storylines and explicit reasoning chains; others involve brief, repetitive doubts with minimal narrative articulation.

From an inference-based perspective, this heterogeneity does not undermine the model's core claims, but it does complicate assessment and operationalization. IC is a process-level construct that cuts across symptom dimensions, rather than mapping neatly onto particular themes. This is a strength conceptually, but it limits the extent to which any single instrument can capture the full idiographic richness of obsessional narratives. Measures such as the ICQ, IPT, DRPT, and FSQ index central tendencies in reasoning style and thematic organization, but they cannot exhaustively represent every individualized inferential configuration.

Critiques that frame this limitation as conceptual vagueness (e.g., Abramowitz & Myers, 2025; cf. Aardema, 2026) overlook a broader issue: no existing OCD assessment framework, whether based on threat beliefs, intolerance of uncertainty, metacognition, or experiential avoidance, adequately captures the full variability of obsessional reasoning. The challenge arises from the nature of OCD itself rather than from deficiencies specific to inferential measures. Future work may benefit from hybrid assessment approaches that retain process-level constructs while allowing greater sensitivity to thematic and narrative variation.

7.2 Mechanism Evidence: Strengths and Constraints

Although evidence linking reductions in IC to symptom improvement is comparatively consistent, important methodological constraints remain. Much of the mechanism evidence is correlational at the level of within-person change. While IC reliably covaries with and predicts symptom trajectories over treatment, fine-grained temporal precedence is not yet established in the strongest causal sense, in part due to assessment spacing and measurement limitations.

In addition, null or weak findings for competing constructs, such as obsessive belief domains or mindfulness indices, do not adjudicate against learning-based or affective mechanisms emphasized in other models. Constructs central to ERP, such as inhibitory learning or expectancy violation, are not easily captured by brief self-report measures. Task-based operationalizations of

inferential processes strengthen construct validity but remain underrepresented in large-scale trials and require replication.

These constraints do not weaken the inference that IC is repeatedly implicated in clinical improvement. They delimit what can be concluded about exclusivity and causal primacy, underscoring the need for continued multimethod research.

7.3 Model Complexity, Training, and Risk of Drift

ICBT requires clinicians to work with a specific inferential architecture: the distinction between perception and imagination, the structure of the obsessional narrative, the role of the feared possible self, and the reasoning operations that generate IC. For clinicians trained primarily in exposure-based or appraisal-based frameworks, this represents a substantive conceptual shift.

Without adequate training, there is a risk that clinicians may inadvertently revert to familiar but incompatible strategies such as truth testing, reassurance, probabilistic debate, or uncertainty tolerance exercises. Such practices do not merely reduce treatment fidelity; they risk feeding the very inferential dynamics the model is designed to dismantle. Fidelity to sequence and conceptual target is therefore especially important in ICBT, not because the model is fragile, but because it intervenes at a level of reasoning that OCD readily distorts.

7.4 Cultural and Contextual Factors

Inferential reasoning, experiential trust, and identity-relevant themes are shaped by cultural context. Although existing validation studies suggest reasonable cross-cultural stability of IC measures, further work is needed to examine how cultural norms influence feared-self themes, narrative organization, and the authority granted to perceptual versus imagined knowledge. These considerations do not challenge the model's core mechanisms but highlight the need for contextual sensitivity in both assessment and intervention.

7.5 Iatrogenic Effects in OCD Treatment: Distinctions, Risks, and Safeguards

Concerns about iatrogenic effects have long accompanied cognitive and behavioral treatments for obsessive compulsive disorder. These concerns are not incidental. OCD is a disorder in which reasoning itself becomes the vehicle of pathology, and interventions that engage cognition or attention are therefore uniquely vulnerable to being absorbed into the obsessional system they seek to modify. The critical issue is not whether such effects can occur, they can, but whether they arise from a mischaracterization of OCD's core mechanisms or from the disorder's characteristic tendency to appropriate therapeutic procedures.

Within cognitive therapy, this risk has been recognized for decades. Indeed, challenging the content of obsessional thoughts or intrusions has been explicitly discouraged in OCD specific

adaptations of cognitive therapy (van Oppen & Arntz, 1994; Clark & Beck, 2009, p.479). The concern is not that cognitive engagement is inherently harmful, but that evidence gathering, probability estimation, and Socratic disputation directed at obsessional content may inadvertently mirror reassurance seeking and mental checking, processes already central to obsessional maintenance. Although Socratic methods are effective in many disorders, direct evaluation of obsessional content in OCD risks strengthening preoccupation rather than resolving it. The risk is not cognitive engagement per se, but engaging cognition at the level of conclusion rather than construction.

It is worth noting that appraisal based cognitive models of OCD can be understood, in part, as an attempt to manage this very problem. By shifting clinical attention away from the content of obsessional thoughts and toward beliefs about those thoughts, such approaches sought to bypass the risk that direct cognitive engagement would be absorbed into reassurance or checking. This strategic move was clinically pragmatic, but it carried a theoretical cost. In bracketing the inferential process by which obsessional doubt is constructed, appraisal-based models largely set aside a core cognitive feature of OCD, namely, the reasoning shift through which imagination comes to outweigh perception as a source of evidence. In doing so, they reduced exposure to certain iatrogenic risks while also leaving unaddressed the cognitive process that initiates the obsessional sequence.

IBA takes a different position. The tendency of OCD to co opt cognitive interventions cannot, by itself, serve as a principled reason to avoid addressing cognitive mechanisms that give rise to symptoms in the first place. If the disorder appropriates therapeutic procedures because reasoning is already disturbed, then the appropriate response is not to retreat from cognition, but to intervene at the level where that disturbance occurs. From this perspective, the central question is not whether cognitive work can be misused by OCD, but whether the form of cognitive work targets the construction of doubt or merely becomes another attempt to resolve it. ICBT is designed to engage cognition without feeding the inferential system, by directing inquiry toward how doubt is generated rather than toward what the doubt asserts.

This distinction is critical for situating ICBT. ICBT does not avoid engagement with the obsession itself, nor does it treat obsessional material as off limits. Rather, it disputes the obsession at a different level. Instead of weighing evidence for or against the feared scenario, ICBT questions the inferential process by which the scenario came to be treated as relevant in the first place. The target of inquiry is not whether the obsession is true, likely, or tolerable, but how imagination displaced perception as a source of evidence. In this sense, ICBT replaces content focused Socratic disputation with process focused examination of reasoning, thereby avoiding the reassurance seeking logic that makes content level disputation iatrogenic in OCD.

This recognition has been echoed more recently in broader analyses of harmful or misapplied treatments for OCD. McKay, Abramowitz, and Storch (2020) distinguish between interventions that lack empirical grounding, misapplications of evidence-based treatments, and procedures that

inadvertently worsen symptoms by reinforcing obsessional processes. A common theme across these categories is that harm arises when treatment becomes organized around resolving, disproving, or neutralizing the obsessional possibility, thereby preserving the inferential stance that gives the doubt its force.

A central clarification is therefore required. If iatrogenic effects are defined simply as instances in which OCD hijacks treatment procedures, then no intervention, cognitive, behavioral, mindfulness based, or pharmacological, would be exempt. Exposure exercises can become repetitive testing rituals. Response prevention can be converted into endurance-based reassurance. Mindfulness can devolve into obsessive monitoring. In such cases, the disorder is not harmed by the treatment model so much as it is expressing its defining tendency, to assimilate any activity into an inferential system organized around doubt.

True iatrogenic effects must therefore be distinguished from OCD's characteristic co-optation of therapeutic tools. From an inference-based perspective, genuinely iatrogenic outcomes occur when treatment targets the wrong level of the disorder, when it engages with obsessional content, feared consequences, or uncertainty tolerance while leaving intact, or inadvertently reinforcing, the inferential process by which imagined possibilities are granted evidential relevance. Under these conditions, treatment tasks themselves are drawn into inverse inference, becoming part of the obsessional narrative rather than a corrective to it.

IBA was developed explicitly to address this vulnerability. Rather than avoiding obsessional material altogether or focusing exclusively on downstream affective responses, ICBT intervenes at the point where iatrogenic effects typically originate, the inferential process through which doubt is constructed. The aim is not to resolve the doubt, evaluate its plausibility, or tolerate its presence, but to examine how it came to be treated as relevant in the first place. By shifting attention from what the obsession is about to how it was inferred, ICBT minimizes the risk that therapeutic engagement will function as reassurance or checking.

Several safeguards follow directly from this orientation. Reality sensing re-establishes the primacy of perceptual and contextual information without inviting verification or testing, thereby preventing subtle checking rituals. Narrative deconstruction limits elaboration by identifying how imagined possibilities are assembled into a justificatory storyline, rather than disputing that storyline's content. Work with the feared possible self reduces the personal relevance that gives obsessional narratives their urgency, without converting therapy into identity reassurance. Across these operations, the consistent emphasis is on recognizing inferential drift rather than correcting conclusions.

An additional safeguard lies in the model's sequential structure. By distinguishing between mapping the observable obsessional sequence and correcting IC, clinicians can track where the client is in the reasoning chain and intervene before therapeutic exercises are absorbed into the

obsessional frame. This focus on inferential position, rather than on technique application per se, helps prevent model drift and reduces the likelihood that therapy itself becomes a vehicle for compulsive engagement.

Beyond theoretical considerations, available outcome data do not suggest that ICBT is associated with elevated rates of deterioration. In controlled trials with trained clinicians, symptom worsening is uncommon, and when it occurs it is more plausibly attributable to baseline severity, comorbidity, or broader clinical factors than to treatment induced harm (Aardema et al., 2022). This aligns with the broader conclusion that iatrogenic effects in OCD are relatively rare in well controlled settings, even when interventions are intensive.

At the same time, the field's longstanding concern with iatrogenesis remains warranted. In less controlled contexts, or when clinicians are insufficiently trained in OCD specific mechanisms, any treatment, including ICBT, may be misapplied. The relevance of the inference-based model here is not that it eliminates risk, but that it makes the source of risk explicit. OCD is a disorder that repeatedly converts help into evidence unless the inferential process itself is addressed.

For this reason, many apparent iatrogenic effects in OCD are better understood as manifestations of the disorder's core dynamics rather than as failures of a particular therapeutic model. True iatrogenic effects arise when treatment feeds inverse inference or targets mechanisms that are downstream from the construction of doubt. By contrast, when interventions are organized around identifying and correcting IC, the likelihood that therapy will be absorbed into the obsessional system is substantially reduced.

In this sense, ICBT does not deny the problem of iatrogenesis. It treats it as a defining clinical constraint. The prevention of treatment induced harm is not an auxiliary concern, but a consequence of intervening at the level where obsessional doubt is generated.

8. Integrative Considerations and Theoretical Positioning of the Inference-Based Approach

IBA occupies a distinctive position within contemporary models of OCD. Although it shares surface features with cognitive, behavioral, and metacognitive frameworks, it differs from them at the level of conceptual target, proposed mechanism of change, and point of clinical intervention. The purpose of this section is not to adjudicate superiority among treatments, but to clarify what problem IBA was designed to solve, how it differs from other models that address related phenomena, and why the availability of multiple validated treatments represents scientific progress rather than theoretical redundancy. Importantly, the distinctions outlined here build on an empirical literature showing that inferential confusion is implicated in obsessive–compulsive symptom change across multiple treatment modalities at the level of inferential organization, even when those modalities differ substantially in technique and theoretical language.

As noted earlier, comparative trials in OCD, like psychotherapy research more broadly, rarely support the notion of a single universally superior intervention. Group-level equivalence does not imply identical mechanisms, nor does it suggest that all individuals respond optimally to the same therapeutic demands. Against this background, the question is not which treatment should replace others, but how distinct models address different aspects of obsessive–compulsive pathology and for whom those differences matter.

8.1 Relationship to Traditional Cognitive Models

ICBT diverges from traditional appraisal-based cognitive models primarily in how obsessions are conceptualized. Appraisal-based CBT treats intrusive thoughts as initially neutral mental events that become clinically significant through maladaptive appraisals concerning responsibility, threat, morality, or control. Treatment therefore targets the interpretation of intrusions and the beliefs presumed to sustain those interpretations.

IBA locates the origin of obsessional doubt upstream of appraisal, at the level of inferential reasoning. From this perspective, the obsession is not a neutral intrusion that later acquires meaning; it is an inference constructed through a reasoning process in which imagination displaces perception as a source of evidence. The "intrusive thought" is not the starting point of the disorder, but one expression of an already active inferential narrative.

This distinction has practical consequences. Whereas appraisal-based interventions aim to modify belief content or reinterpret meaning, ICBT targets the reasoning process that rendered the scenario relevant in the first place. The clinical question shifts from "Is this belief accurate?" to "How did this possibility come to function as evidence in the first place?" In doing so, ICBT avoids direct challenges to values or moral commitments and reframes obsessional distress as a problem of reasoning rather than belief endorsement or character.

8.2 Relationship to Exposure and Response Prevention

ERP is often treated as the reference intervention for OCD. Its theoretical foundation lies in fear-learning models, in which distress is maintained by avoidance and safety behaviors and reduced through exposure, response prevention, and inhibitory learning. From this standpoint, obsessional fear is treated as an exaggerated reaction to a perceived threat.

IBA departs from this logic at a fundamental level. Obsessional doubt is not viewed as a miscalibrated fear response to a meaningful stimulus, but as the product of a reasoning process that constructs threat where none exists. Consequently, deliberate fear activation is not required to produce change. ICBT intervenes prior to fear, at the point where imagination has displaced perception and a hypothetical scenario has been granted unwarranted credibility.

This difference does not imply rivalry or superiority. It reflects a difference in explanatory target. ERP operates downstream of doubt, modifying learning once obsessional fear is active. ICBT operates upstream, preventing doubt from organizing experience in the first place. When behavioral change follows inference correction, it reflects action from clarity rather than fear tolerance. Although the outward behavior may resemble exposure, the underlying logic is different. From this standpoint, changes observed following ERP need not be interpreted as specific to fear extinction alone; they may also reflect a downstream weakening of the inferential stance that initially granted imagined threat situational relevance.

8.3 Relationship to Intolerance of Uncertainty and Acceptance-Based Accounts

Intolerance of uncertainty has frequently been treated in clinical discourse as a core feature of OCD, particularly within ERP-oriented formulations that emphasize learning to tolerate doubt. However, empirical support for the specificity of intolerance of uncertainty to OCD is absent. IU appears as a broad, transdiagnostic correlate of distress rather than a defining or causal feature of obsessive–compulsive pathology.

From an inference-based perspective, locating obsessional doubt in an inability to tolerate uncertainty misconstrues the problem. Obsessional doubt is not produced by uncertainty, nor does it persist because uncertainty is intolerable. Rather, the doubt is treated as real because it has already been granted evidential status through IC. In this context, there is nothing to tolerate. The uncertainty is derivative, not causal.

Put differently, intolerance of uncertainty presupposes the credibility of the doubt. It describes how individuals respond once a possibility has been granted evidential standing, not how that standing is established. Once the inferential error is corrected and the imagined possibility is no longer treated as relevant, the experiential pressure to tolerate uncertainty typically dissolves. What appeared as an inability to endure uncertainty is more parsimoniously understood as continued engagement with an unreal premise.

A common conceptual error is to confuse the individual's effort to reach certainty, which follows from the construction of obsessional doubt, with a dispositional inability to tolerate uncertainty or a trait-like tendency toward perfectionism. Within an inference-based framework, such characteristics are not treated as primary vulnerabilities that generate obsessional doubt. Rather, they are more parsimoniously understood as post hoc rationalizations or epiphenomenal descriptions of behavior that emerges once doubt has already been constructed.

Clinically, individuals with OCD frequently explain their compulsive behavior by appealing to personal traits, telling themselves that they are checking or neutralizing because they are "too perfectionistic" or because they "cannot tolerate uncertainty." From an ICBT perspective, these

explanations do not identify the source of the problem. They reflect attempts to make sense of actions that have already been rendered necessary by an inferential error.

In ICBT, the drive toward certainty is not attributed to an underlying deficit in uncertainty tolerance. It is understood as the logical consequence of treating an imagined possibility as evidentially relevant in the present. As articulated by Aardema (2024), obsessive beliefs and self-descriptions may therefore reflect downstream narrative rationalizations of obsessional doubt generated by IC, rather than dispositional causes of that doubt.

Acceptance-based and mindfulness-oriented approaches similarly emphasize changes in one's relationship to thoughts and feelings rather than the correction of their content. From an inference-based standpoint, these approaches may reduce secondary struggle once doubt is active, but they do not directly address the reasoning process that generated the doubt. Applied prior to inferential correction, strategies aimed at acceptance or tolerance risk leaving intact the very process that makes acceptance feel necessary.

8.4 On Integration, Pluralism, and Theoretical Independence

IBA approach does not require integration with other models in order to be conceptually complete or clinically viable. It was developed as a stand-alone account of obsessive–compulsive disorder, with its own explanatory target, mechanism of change, and internally coherent set of clinical procedures. Its relationship to other approaches is therefore not one of supplementation, but of theoretical differentiation.

Apparent overlaps with other treatments do not reflect convergence between independent mechanisms. Rather, they arise because processes emphasized elsewhere, such as affective regulation, behavioral engagement, metacognitive distancing, and values-consistent action, occupy positions that are already specified within the inference-based model, typically as downstream consequences of correcting IC. Accordingly, it would be misleading to describe ICBT as complementary to appraisal-based, exposure-based, or acceptance-based treatments in the usual sense. ICBT does not add an inferential layer to these approaches, nor does it rely on them to complete its therapeutic action. Instead, it reorganizes the therapeutic field by identifying a level of disturbance that those models either bypass or treat indirectly.

This does not imply that other validated treatments lack value. Rather, it supports a pluralistic position consistent with the broader psychotherapy literature: multiple treatments can be effective through different mechanisms and place different experiential demands on clients. Offering more than one empirically supported option is not a threat to existing models; it is a means of improving access, fit, and outcome.However, pluralism does not require theoretical dilution. Collapsing distinct models into hybrid frameworks risks obscuring mechanisms and weakening explanatory clarity.

The relationship is therefore asymmetric. ICBT can accommodate procedures drawn from other traditions, but only by redefining their function within an inferential framework. Without addressing IC, cognitive, behavioral, or acceptance-based strategies remain vulnerable to being absorbed into the obsessional system they aim to modify. In this sense, ICBT does not compete with other models; it specifies the conditions under which their effective elements can operate without reinforcing obsessional doubt. Seen in this light, inferential confusion is best understood not as a model-specific construct, but as a level of cognitive organization at which multiple therapeutic approaches may converge, diverge, or operate indirectly.

9. Conclusion and Future Directions

This chapter has examined ICBT as a distinct theoretical and clinical account of obsessive–compulsive disorder. The central claim advanced throughout is that obsessional doubt is not best understood as a reaction to intrusive thoughts, exaggerated threat appraisals, failures of uncertainty tolerance, or conditioned fear responses. Rather, OCD is characterized by a disruption in inferential reasoning, whereby imagined possibilities acquire evidential status and displace perception and contextual knowledge as guides to action. This inferential shift constitutes the point at which obsessional experience is generated, not a downstream consequence of anxiety or distress.

From this perspective, many phenomena commonly treated as primary in OCD, including fear, uncertainty, hyper-responsibility, checking, reassurance seeking, are better understood as secondary responses to a prior reasoning error. They arise once a hypothetical scenario has been granted relevance, and they persist insofar as that inferential stance remains intact. The inference-based model therefore reframes OCD not as a disorder of excessive doubt per se, but as a disorder in which doubt is constructed and sustained through a specific epistemic confusion.

The empirical and clinical work reviewed in this chapter supports this formulation. ICBT demonstrates outcomes comparable to established cognitive–behavioral interventions while relying on a different point of intervention. Process findings further suggest that changes in IC show a consistent relationship with symptom reduction, even when considered alongside broader cognitive constructs and general distress. While these findings do not establish a single mechanism of change, they justify treating inferential processes as central rather than peripheral to the disorder.

At a broader level, the existence of multiple validated treatments for OCD reflects not theoretical failure, but scientific maturity. The clinically relevant question is no longer which treatment should dominate, but how different mechanisms of change can be matched to the needs, reasoning styles, and tolerability of different treatment demands across individuals. In this context, ICBT stands not as an adjunct or compensatory intervention, but as an independent and empirically grounded option within a diversified treatment landscape. Its relevance does not depend on supplementing

other approaches, nor on correcting their limitations; it follows from addressing a distinct and previously under-theorized cognitive process.

Looking forward, several directions are clear. Larger multisite trials with balanced therapist expertise are needed to refine estimates of efficacy and to examine moderators of response. Continued development of process-sensitive and task-based measures will strengthen causal inference regarding inferential mechanisms. Stepped-care and sequencing designs offer a promising framework for examining how different points of intervention may be optimally deployed without presupposing a single first-line model. Finally, integration with contemporary cognitive science, particularly research on mental simulation, predictive processing, and perceptual confidence, may further specify the computational and epistemic basis of IC.

In sum, ICBT does not propose a new technique layered onto existing models. It proposes a different answer to a different question: not how individuals should cope with obsessional doubt, but how such doubt comes to be constructed at all. By restoring perception and ordinary contextual knowledge to their proper epistemic role, IBA aims not to manage obsessional life, but to dissolve the false premises on which it depends. In doing so, it contributes a theoretically precise and clinically consequential perspective to the cognitive understanding of OCD and related disorders. The significance of this position is not that it privileges one intervention over another, but that it clarifies the inferential level at which obsessional doubt is constructed. By identifying inferential confusion as an upstream organizing process, the inference-based approach reframes long-standing debates about mechanisms of change as questions of inferential position rather than therapeutic allegiance.

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