

Metaphor Use, Efficacy Testing, and Mechanisms of Action in Psychotherapy

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Abstract

The application of metaphor in psychotherapy is widespread. Basic metaphor theories in linguistics and psychology emphasize that metaphors possess cognitive processing advantages such as high creativity, memory retention, and enhanced engagement. Several psychotherapy theories also posit that the processing characteristics of therapeutic metaphors—including unconscious meaning exchange, schema reconstruction, and intuitive experience—may confer unique enhancement in therapeutic information transmission. Building upon this foundation, existing empirical evidence largely supports that therapeutic metaphors yield superior psychological intervention effects compared to non-metaphorical interventions, with their therapeutic advantages in psychoneural mechanisms primarily stemming from metaphor-evoked creative insight, improved long-term memory, and heightened cognitive engagement. Future research should further investigate the distinctive advantages of therapeutic metaphors through refined control group designs, outcome measures, and mechanism exploration, and offer recommendations for developing cost-effective social mental health service programs integrated with metaphors.

Full Text

Preamble

Metaphors are extensively used in psychotherapy. Basic metaphor theories in linguistics and psychology emphasize that metaphors possess cognitive processing advantages such as high creativity, strong memory retention, and enhanced involvement. Several psychotherapy theories also suggest that the processing characteristics of therapeutic metaphors—including unconscious meaning exchange, schema restructuring, and intuitive experience—may provide unique enhancements for therapeutic information transmission. Building on this foundation, existing empirical evidence largely supports that psychotherapeutic

interventions employing metaphors yield superior outcomes compared to non-metaphorical interventions. The underlying neuropsychological mechanisms of these therapeutic advantages primarily derive from metaphor-induced creative insight, enhanced long-term memory, and stronger cognitive engagement. Future research should further examine the unique benefits of therapeutic metaphors through improved control group designs, outcome measures, and mechanism exploration, while also providing recommendations for developing cost-effective, high-efficacy public mental health service programs embedded with metaphors.

Keywords: metaphor, psychotherapy, psychological intervention

Metaphor, derived from the Greek “meta pherein” meaning “to carry over,” refers to transferring an object from one thing to another (Berlin et al., 1991). In Chinese rhetoric, this involves what are traditionally called the vehicle and tenor, though contemporary usage increasingly favors the terms source domain and target domain (Lakoff & Johnson, 1980).

Metaphors are ubiquitous in daily life, enabling people to express and understand abstract, intangible, and complex target domain concepts (such as psychological feelings, social relationships, and morality) through concrete, tangible, and simple source domain concepts (such as temperature, space, and action), thereby facilitating abstract thinking (Lakoff & Johnson, 1980; Landau et al., 2018; Yin et al., 2013). According to this definition, figures of speech such as analogy, comparison, and personification all possess metaphorical qualities. Scholar Gao Wei proposes that viewing metaphor merely as a rhetorical phenomenon represents a narrow conceptualization, arguing that metaphor has sufficient capacity to encompass other figures of speech and should be defined more broadly. He contends that the essence of metaphor lies in cognition, that metaphor constructs most conceptual systems, and that novel metaphors provide new perspectives for understanding things. Gao suggests that metaphor includes simile, metaphor proper, synecdoche, personification, and objectification, even encompassing analogy and modeling. As the extension of metaphor expands, it increasingly becomes a universally employed concept in both academic language and everyday life (Gao Wei, 2015). Consequently, researchers have reached a consensus that metaphor represents an important mode of human thinking and a perspective for cognizing things, capable not only of constructing language but also serving as an indispensable mechanism for understanding the world and organizing thought.

Most psychotherapy is conducted through therapeutic conversation, and its effectiveness heavily depends on communication between client and therapist. As an effective linguistic form and mode of communication for information transmission, metaphor is widely applied in psychotherapy, with 95% of counselors reporting metaphor use in their practice (Bryant et al., 1988). Metaphors used in psychotherapy can be termed therapeutic metaphors, which therapists employ to help clients achieve personal transformation, healing, and growth, with the primary purpose of altering, reinterpreting, and reconstructing ideas (Nordquist,

2018). Simultaneously, metaphor is regarded as both a psychotherapeutic perspective and an intervention measure, constituting the core of the therapeutic change process (Kopp, 1995). Stott et al. (2010) clearly state that psychotherapy employs metaphor in its broad sense, noting that metaphorical content may appear superficially unrelated to the client's discussed themes, yet clients can transmit therapeutic information by discovering conceptual similarities with their own experiences. They propose that psychotherapy utilizes both simple metaphorical expressions and more complex metaphors such as short stories and fables, including scenes from poetry, books, drama, films, and news stories.

In psychotherapeutic practice, metaphors serve as communication tools between therapist and client. Based on their origin in therapy, they are primarily divided into two categories: client-generated metaphors and therapist-generated metaphors (Kopp, 1995). Client-generated metaphors are those used by clients to describe their own states or feelings, such as "I'm trapped in a maze every day, unable to find a way out." These metaphors are valued in traditional psychoanalysis (Freud and Jung) as well as in postmodern approaches like narrative therapy and solution-focused therapy. This metaphorical approach allows clients to indirectly and vividly express their thoughts and feelings, enabling therapists to use metaphors as entry points to explore clients' experiences, guide them in expanding or rewriting their stories, and endow these metaphors with new meaning to facilitate internal transformation. Therapist-generated metaphors are stories created or cited by therapists to address clients' problems, solution processes, and expected therapeutic outcomes. They are widely used in cognitive behavioral therapy, acceptance and commitment therapy, and Ericksonian psychoanalysis. When clients cannot find solutions, therapist-generated metaphors first present problems that evoke empathy, then construct and transmit the resources, skills, and methods needed for resolution to achieve appropriate therapeutic results. Mathieson et al. (2016) assessed metaphor usage frequency in 48 CBT session transcripts (from 12 clients and 3 therapists), finding an average of 31.5 metaphors per 1,000 words of therapeutic dialogue, with therapist-generated metaphors averaging 21.2—twice the frequency of client-generated metaphors (10.3). If client-generated metaphors require therapist capture for utilization, therapist-generated metaphors can be enhanced through training therapists in conscious metaphor use to strengthen therapeutic effects.

This paper first examines why metaphors are widely applied in psychotherapy, elaborating on both the unique advantages summarized by therapists from experience and the cognitive processing characteristics of therapeutic metaphors grounded in psychological and linguistic theories. Subsequently, we review theoretical elaborations of therapeutic metaphors across multiple psychotherapy schools and corresponding empirical studies for specific schools to investigate whether metaphor-embedded therapy demonstrates unique efficacy advantages over conventional therapy. Simultaneously, this paper examines the mechanisms of therapeutic metaphors, exploring the psychological and neural mechanisms associated with their cognitive processing advantages. Finally, while discussing current problems in empirical research and future directions, we also attempt

to derive recommendations for therapeutic practice from empirical findings.

1. Cognitive Processing Advantages of Metaphors

Psychotherapy is language-based treatment, and whether therapeutic information can be heard, accepted, and acted upon depends not only on content but also on how therapists express and transmit information (Burns et al., 2011). As a linguistic form and communication mode in therapy, metaphor possesses a series of cognitive features that facilitate therapeutic information effectiveness.

1.1 Creativity

Creativity is a major characteristic promoting extensive metaphor use in psychotherapy, as metaphors help generate new ideas and meanings. In practice, metaphors can stimulate imagination, help clients bypass original mental sets, escape problem predicaments, simultaneously create new possibilities for solutions, and provide methods to realize these possibilities (Burns et al., 2011). Multiple metaphor theories emphasize their function in creating new meaning: Richards' interaction theory posits that metaphors combine knowledge and meaning from both old and new conceptual domains, creating new meaning through their interaction that differs from both original concepts, emphasizing that metaphor' s cognitive value lies in its ability to generate new knowledge and ideas by altering relationships between concepts (Black, 1993). Conceptual metaphor theory views metaphor as a conceptual structure that uses concrete, familiar concepts to understand abstract, unfamiliar ones, mapping structure from one conceptual domain (source domain or vehicle) onto another (target domain or tenor), proposing that metaphors can discover similarities and create new meaning (Lakoff & Johnson, 1980; Cao Shuang, 2018). Fauconnier' s conceptual blending theory states that conceptual blending is a cognitive process through which people think and act, particularly during creative thinking. When understanding metaphors, people extract partial structures from source and target domains for conceptual blending, forming previously nonexistent new relationships or larger emergent structures through combination and elaboration, thereby completing new conceptual connections and creation (Wang Shaohua & Zheng Shoujiang, 2000). Other researchers propose that metaphors map schematic structures with gestalt properties from concrete experiences onto abstract categories and relationships, creating similarities between them to obtain new knowledge and understanding (Yin et al., 2013). Recent empirical research focusing on the relationship between metaphor and creativity has found that individuals with higher creativity understand both conventional and novel metaphors more quickly (Kenett et al., 2018), and that novel metaphor production involves early synchronization between the brain' s default network (left angular gyrus) and salience network (right anterior insula), preceding later coupling between the left angular gyrus and executive network (left dorsolateral prefrontal cortex) (Benedek et al., 2017).

1.2 Memory

Metaphors in therapy also feature memorability. Metaphorical expressions in practice are organized and interesting, can mobilize multiple senses, and evoke moderate emotional arousal—all enhancing memory for verbally expressed therapeutic information (Otto, 2000). Moreover, clients are more likely to recall content from therapist-intentional metaphor interventions and consider recalling therapists' metaphors more helpful for insight than recalling therapeutic events themselves (Martin et al., 1992). In basic psychology, dual coding memory theory posits that metaphor processing involves joint processing of imagistic and verbal processes (Paivio & Walsh, 1993). These two representational systems operate both independently and interdependently, specializing in storing, organizing, retrieving, and manipulating stimulus information. Both systems can be activated separately or in parallel while allowing information transfer between them. For metaphors, the imagistic system is assumed to construct a synchronously organized, comprehensive information structure, thereby possessing chunking and memory functions that enhance long-term memory storage and retrieval capacity. The verbal system organizes discrete linguistic and imagistic units into higher-level sequential structures to facilitate deep information processing with generalizability and logicity. Metaphor's three hypotheses theory presents elaborations very close to Paivio's dual coding theory (Ortony, 1993), proposing three hypotheses: First, the inexpressibility hypothesis—some concepts are difficult to express in literal language, necessitating metaphorical language. Second, the compactness hypothesis—metaphors convey rich, complex information to the target domain using relatively few words from the source domain, providing a communicative advantage through chunking that literal language lacks. Third, the vividness hypothesis—metaphors help convey vivid representations with phenomenological experience, thus serving as perceptual-experiential representations with memory stickiness and emotional arousal functions. The compactness hypothesis reveals metaphor's advantage in chunking memory, while the vividness hypothesis suggests metaphors also produce emotional memory, both strengthening preservation and retrieval of therapy-relevant long-term memory.

1.3 Involvement

Whether inside or outside counseling, expressive and vivid language always attracts people, and when metaphors appear in therapy, the strong cognitive involvement they generate may become the beginning of an internal transformation. Burns et al. (2011) discovered from metaphor therapy practice that first, metaphor's attractiveness can stimulate listeners' interest and increase their motivation to participate in communication and reflection. Subsequently, metaphor's interactivity requires listeners to concentrate and actively participate to fully comprehend its meaning, thereby establishing an interactive communication pattern. Additionally, novel metaphors serve as ambiguous stimuli for clients, generating desire to explore their meaning, and this exploration of

new meaning constitutes the fundamental therapeutic value of metaphor. These characteristics all point to metaphor's cognitive involvement feature, which can enhance listeners' motivation to process information (Kendall, 2010). If metaphors can actively mobilize clients' cognitive resources for thoughtful consideration and cognitive elaboration of intervention content, this is crucial for potential attitude change (McNeill & Stoltenberg, 1989), as greater contemplation of therapists' interventions means greater participation in the therapeutic process.

Furthermore, metaphors possess advantages including rich meaning implication, resistance avoidance, and promotion of client autonomy. These features collectively facilitate effective therapeutic information transmission and long-term maintenance of therapeutic effects, providing a deep experiential foundation for their application across extensive time spans and broad recognition across diverse psychotherapeutic theoretical orientations.

2. Theoretical Perspectives on Therapeutic Metaphors

2.1 Psychoanalysis or Psychodynamics

The psychoanalytic school first emphasized metaphor's role in psychotherapy, dividing metaphor use into explanatory and communicative models (Blenkiron, 2010; Muran & Diguseppe, 1990; Stott et al., 2010).

The explanatory model originates from psychoanalysis, particularly the work of Freud and Jung, aiming to interpret client-generated metaphors. They proposed that metaphors emerge from clients' unconscious, with accessible portions of thoughts, speech, and experiences (such as dreams or slips of the tongue) potentially representing disguised forms of underlying unconscious conflicts. Thus, the unconscious reveals itself through symbols and metaphors. For example, dreaming of a car accident or experiencing illogical health anxiety about skin problems may represent metaphorical expressions of unspoken anxiety in another part of the client's life. Psychoanalysts believe clients' traumatic psychological experiences may be repressed in unconscious thought processes, but clients consciously use symbolic metaphors to express and release these repressed experiences. Therapists can then access and understand clients' unconscious through symbols or metaphors, transmitting this information back to clients, whose new understanding directly promotes symptom improvement. Barlow (1977) analyzed insight episodes and metaphor frequency in two psychoanalytic clients, finding that insight occurred when clients communicated with therapists in highly metaphorical ways. By coding therapeutic content into novel versus non-novel periods to identify "insight moments," the study found higher correlation between novel metaphor frequency and insight moments, with significantly more metaphors appearing during insight events than non-insight periods. The author concluded that novel metaphorical language concretizes painful experiences, constituting both specific therapeutic insight content and interactive themes in the psychotherapy process.

In contrast, Erickson advocated for the metaphorical communication model, pioneering the proposal that therapists should actively construct metaphors to communicate with clients. His influential work established the multiple metaphor embedding technique—presenting several metaphorical stories around different themes within a single session, all serving an overall goal—to block interference from certain conscious meanings and enable patients to smoothly access their unconscious, thereby mobilizing clients’ own resources to promote individual development and change. Consequently, Erickson 致力于 activating metaphorical stories’ meaning for clients at the unconscious rather than conscious level. For instance, a story might appear to discuss difficulties on the surface while 暗示 that experiencing and overcoming difficulties grants strength. Through this approach, Erickson promoted reorganization of meaning and behavioral change at the unconscious level (Blenkiron, 2010; Muran & Digiuseppe, 1990; Stott et al., 2010). These two models demonstrate that metaphor’ s initial application in psychotherapy viewed it as unconscious-level meaning exchange to promote new meaning generation and subsequently emotional and behavioral change in clients.

2.2 Cognitive Behavioral Therapy

Cognitive Behavioral Therapy (CBT) emphasizes using cognitive restructuring techniques to identify dysfunctional thoughts or irrational beliefs causing emotional and behavioral abnormalities, actively challenging these thoughts, and ultimately establishing more functional and reasonable perspectives. Researchers propose that effective cognitive restructuring should (1) challenge existing personal belief schemas (i.e., individuals’ firmly held concepts or theoretical assumptions that form the basis for interpreting and executing their own behavior) on logical, empirical, and heuristic grounds, and (2) provide alternative schemas that are both logically and empirically reasonable and valid. Traditional CBT emphasizes Socratic dialogue for logical and rational propositional cognitive restructuring, but later began valuing metaphor use—more imagistic and intuitive language—to more effectively change clients’ language and meaning for organizing and understanding the world. CBT researchers recognized therapeutic metaphors’ important role in new schema formation and transformation as central to individual schema change (Muran & Digiuseppe, 1990). On one hand, they highly endorse metaphor’ s interaction theory, viewing metaphor as bridging old and new concepts or representational schemas. By providing different ways of perceiving and organizing the world, metaphors bridge the gap between old and new knowledge, thereby producing “new answers,” “reframing,” or “new consciousness patterns.” Thus, as a fundamental component of language use, metaphor possesses heuristic value (such as in learning) and cognitive value (such as in understanding new knowledge schemas), enabling important psychotherapeutic value in cognitive restructuring. On the other hand, they also endorse Paivio and Ortony’ s metaphor memory perspectives, proposing that metaphors can quickly integrate information through conceptual connections, storing it in “cognitive chunks” for convenient retrieval. Moreover, based on

deep information processing, metaphors facilitate cognitive restructuring, with individuals improving negative emotions or alleviating psychological distress by enhancing cognitive flexibility.

Therefore, in CBT, metaphors facilitate new schema generation and memory preservation and recall through deep information integration, thereby contributing to reorganization and reconstruction of negative cognitive schemas and ultimately promoting psychological symptom improvement (Muran & Digiuseppe, 1990).

Stott et al. (2010) integrated conceptual metaphor theory and conceptual blending theory to propose a theoretical model for metaphor application in cognitive therapy, suggesting four processes: activation, elaboration, synthesis, and reorganization. First, metaphors activate two cognitive structures: source and target domains. The target domain represents the client's problematic cognitive structure or process—their existing belief schema—often abstract and difficult to describe. The source domain may originate from either client or therapist, typically with concrete and experiential foundations, easily depicted or simulated through vivid images, and readily understood and manipulated. Both domains may require further elaboration by the therapist, such as detailing and clarifying maladaptive thoughts within the target domain, and understanding the client's comprehension and interpretation of the source domain, enabling mutual recognition of meaning and achieving full meaning sharing between therapist and client.

Subsequently, the cognitive synthesis process integrates meaning elements from both source and target domains, achieving meaning exchange between the two domains with clear conscious awareness of these components and their exchange process. Thus, a new, cross-domain strengthened cognitive structure containing both linguistic and imagistic components is created. Ultimately, clients develop a new cognitive structure—a new perspective or alternative viewpoint formed through reconstructing their maladaptive thoughts or problem domain—that can be explicitly articulated, with key meanings becoming more easily retrievable through association with vivid imagery.

In summary, CBT theory posits that metaphors either help bridge gaps between old and new knowledge, thereby creating new answers or promoting schema restructuring, or integrate and exchange meanings between source and target domains. Metaphorical expression's chunking and imagistic qualities can strengthen long-term memory, thereby maintaining its therapeutic effect beyond therapy sessions. Metaphor's role in CBT has been explored and validated in considerable empirical research.

First, researchers using conversational text analysis methods explored metaphor frequency in CBT and both parties' responses to metaphors. Mathieson et al. (2015, 2016) found through text analysis that metaphors were prominently used in CBT (31.5 metaphors per 1,000 words of therapeutic dialogue), with metaphorical exchanges initiated by either therapist or client and accepted

by both parties occurring at roughly equal frequency. They categorized responses to metaphors into five types: repetition, rephrasing, exploration, elaboration/expansion, and agreement, recommending that therapists attend to metaphors emerging during therapy and be aware of clients' responsiveness to them. They believed that metaphor use frequency and effectiveness in CBT could be improved through therapist training, subsequently validating this view by finding that trained therapists were more willing to actively use metaphors and consciously respond to clients' metaphors, increasing time spent interpreting client metaphors and using metaphors during conceptual elaboration (Mathieson et al., 2018). Their high ecological validity qualitative research revealed and validated the universality and importance of metaphors in psychotherapy, providing a foundation for further experimental studies validating intervention effectiveness.

Second, researchers conducted empirical studies on metaphorical CBT for alleviating general emotional symptoms and changing irrational beliefs. Regarding general emotional symptom alleviation, one study with low self-esteem participants used a long-term intervention framework incorporating stories, metaphors, and experiential exercises to transform negative perceptual biases and enhance self-esteem (Rigby & Waite, 2007). This single-group study conducted 2-hour weekly sessions for 10 consecutive weeks, finding that metaphor and story use effectively improved self-esteem and significantly alleviated anxiety and depression, with effects lasting at least 2 months. However, the lack of a control group compromised reliability. A Sri Lankan research group conducted a series of metaphorical CBT intervention studies for patients with Medically Unexplained Symptoms (MUS) (Sumathipala, 2014; Sumathipala et al., 2000; Sumathipala et al., 2008). Their 2000 study provided six 30-minute metaphorical CBT knowledge transmission sessions, finding that compared to a control group receiving routine treatment, the metaphor group showed fewer symptoms, lower psychological morbidity, and less frequent consultations. Their 2008 study had trained primary care physicians deliver the same metaphorical CBT intervention to the experimental group, while the control group received structured care from untrained physicians with identical frequency and duration. Results showed no significant differences between groups in symptoms, complaint frequency, or patient-initiated consultations, with both groups improving at 3 months post-treatment and maintaining improvement for at least 12 months. These findings indicate that both metaphorical CBT and ordinary structured care effectively alleviate clinical symptoms, with incomplete support for metaphorical CBT superiority. However, based on clinical experience and patient feedback, the researchers considered metaphor an effective clinical tool enabling non-specialists to better transmit CBT principles to patients. Consequently, in 2014 they developed a culturally adapted metaphor intervention package for Sri Lanka, arguing that in environments with extremely limited professional psychological resources, simple and effective metaphorical CBT was essential for helping patients manage symptoms.

Regarding changing irrational beliefs and catastrophic thinking, researchers

used Individual Metaphor Therapy (IMT) to address irrational beliefs in substance-dependent patients across two intervention studies—one with 10 weekly 1-hour sessions (Komasi, Saeidi, et al., 2016) and another with 6 weekly 1-hour sessions (Komasi, Zakiei, et al., 2016). The metaphor group underwent metaphorical cognitive restructuring as the main weekly content, while the control group discussed drug abuse harms with counselors. Both studies showed significant reductions in irrational beliefs including need for approval, high self-expectations, frustration reactions, excessive worry, and perfectionism. Notably, shorter intervention durations may affect metaphor effectiveness: two studies using 4-week interventions (2 hours weekly) found that relaxation training was significantly more effective than metaphor therapy and control groups in reducing hopeless beliefs and pain severity (Bahreman et al., 2015), and that metaphor and control groups showed no significant differences in depression, anxiety, stress, or pain measures (Bahreman et al., 2016). These four studies yielded inconsistent results, possibly due to varying treatment durations and different client group sensitivities to metaphor therapy. Another study with chronic pain patients had the metaphor group read self-help educational materials about pain physiology compiled using metaphors and stories to reconstruct physiological knowledge about pain and reduce catastrophic thinking, while the control group read advice on managing chronic pain without metaphors. Results showed that at 3 weeks and 3 months post-material distribution, the metaphor group demonstrated significantly increased pain knowledge and reduced catastrophic thinking, maintained for at least 3 months. After 3 months, when the control group also received the metaphor intervention, they showed identical changes (Gallagher et al., 2013). This rigorously designed study reliably demonstrates metaphor's unique role in cognitive restructuring.

2.3 Acceptance and Commitment Therapy

Acceptance and Commitment Therapy (ACT) is another therapeutic approach extensively using metaphors, emphasizing therapist-generated metaphors as a third-wave cognitive behavioral therapy (Stoddard & Afari, 2014). Regarding therapeutic metaphors, ACT proposes that (1) humans possess the capacity for arbitrarily applicable relational responding, closely related to human language, where larger linguistic units such as metaphors, analogies, anecdotes, and fables connect different relationships. For example, the metaphor “anxiety is like quicksand—the more you struggle, the deeper you sink” establishes a common context between these two situations, where both quicksand and anxiety are unpleasant scenarios people struggle to escape. If clients recognize this similarity, they may deduce from the metaphor that they need not strongly resist anxiety to avoid sinking deeper as in quicksand. Relational Frame Theory suggests metaphors may have the potential to connect several different relational sets, enabling derivation of vast and complex relational networks, making them a powerful cognitive tool (Barnes-Holmes et al., 2001; Wang Shujuan et al., 2012). (2) ACT considers psychological rigidity the core of human suffering,

arising from entanglement with linguistic rules and traps. When lost in these, individuals cannot accurately perceive their experiences or living environment and cannot respond adaptively. Metaphors may have unique advantages in reducing psychological rigidity caused by linguistic rules: on one hand, metaphors transmit information through non-judgmental, non-analytical means, not following logically rigorous syllogisms or strict rules; on the other hand, metaphors as stories and experiences connect people's rich experiential knowledge with uncertain, unfamiliar domains, bypassing the didactic nature of literal language and shifting toward more concrete experiential contact. Therefore, ACT emphasizes using metaphors and experiential exercises to help clients understand suffering and therapy itself through experiential rather than rational means (Stoddard & Afari, 2014).

Empirically, researchers recruited high anxiety-sensitive participants to compare the intervention effects of acceptance metaphors delivered through linguistic imagination versus behavioral experience on laboratory-induced panic symptoms. The intervention used ACT's classic Chinese finger trap metaphor to convey acceptance. This trap's characteristic is that attempting to pull fingers out directly causes the tube to tighten, but pushing fingers deeper expands the tube, making extraction easy. This metaphor encourages accepting unpleasant thoughts, feelings, and bodily sensations, illustrating that accepting anxiety/panic symptoms rather than rejecting or suppressing them may be more effective. In the experiment, the imagination group understood the finger trap metaphor through watching linguistically explained videos, while the experience group understood it through video explanation, demonstration, and hands-on experience. Participants were then encouraged to use learned acceptance strategies to cope with panic induced by inhaling air containing 10% carbon dioxide. Results showed the experience group demonstrated better intervention effects than the imagination group in heart rate, panic level, and behavioral avoidance (Herzberg, 2013).

2.4 Postmodernism

Postmodernism-informed psychotherapy and counseling adopts constructivist epistemology, viewing pathological psychology as a result of social construction through language, lacking objective meaning or real existence. The clinician's task is to listen to patients' "stories," discover how patients organize experiences and generate life meaning, and help them reconstruct a more positive "story" and a healthy "self" (Wang Xinjian, 2003; Ye Haosheng, 2003). Narrative therapy and solution-focused therapy, both deeply influenced by postmodernism, address therapeutic metaphor use.

Narrative therapy advocates separating the person from the problem rather than viewing them as integrated. Through problem externalization that creates distance, problems are treated objectively and clearly, internal resources are rediscovered and recognized, and clients consequently gain capacity to solve their own problems. Narrative therapy emphasizes having clients find resources

for problem-solving within their own metaphors and stories, helping them recognize the maladaptiveness of their past life narratives and understandings, and encouraging reconstruction of one or more new, functionally sound life stories. McGuinty et al. developed a short-term treatment protocol called Externalizing Metaphor Therapy (EMT) based on narrative therapy (McGuinty et al., 2014; 2018a; 2018b), with specific components including problem externalization, metaphorical imagery transformation, transfer of potential maladaptive emotional schemas, and generalization. The theoretical foundation involves clients creatively concretizing emotional states and experiences through metaphor to promote re-understanding and reconceptualization of problem states.

Empirically, McGuinty et al. (2017) used externalizing metaphor therapy for youth emotional intervention, proposing a three-session narrative intervention protocol emphasizing problem externalization and transfer using specific metaphors. Trained clinicians from a student counseling center administered externalizing metaphor therapy to 50 clients exhibiting anxiety/depression and conventional therapy to 15 clients. Both treatments produced significant reductions in DASS stress, depression, and anxiety, and trait anxiety. Although treatment effects showed no statistically significant differences between externalizing metaphor therapy and conventional therapy, the authors noted that their three-session externalizing metaphor protocol achieved effect sizes nearly equivalent to other researchers' eight-session narrative protocols, suggesting metaphor protocols significantly shorten intervention duration. Another study implemented narrative therapy based on fairy tales, promoting mental health and growth through story telling, discussion, and writing. Twenty-one women with adjustment disorders received seven group sessions led by a folklorist and clinical psychologist, introducing recurring fairy tale themes and their social narrative value, followed by discussion and participants rewriting their own original stories. Results showed participants reported enhanced personal growth, self-acceptance, appreciation of life and personal strength, and reduced anxiety, demonstrating the feasibility and positive effects of narrative strategy-based group intervention for promoting well-being and growth in stressed women (Ruini et al., 2014).

Solution-focused therapy emphasizes language's central role in constructing reality, focusing on finding solutions rather than problem causes, and encouraging clients to identify their own coping resources and successful experiences to promote change through positive, future-oriented, and goal-directed attitudes. For example, the miracle question technique asks clients: "If one morning you wake up and a miracle has happened and the problem is solved, how would your life be different?" This encourages clients to use the miracle metaphor to pursue a positive future. Zatloukal et al. (2019) proposed metaphor-based solution-focused brief intervention protocols from both client-generated and therapist-generated metaphor perspectives, developing an imagistic or symbolic expression with clients to clarify, describe, and create shared language understanding, generate new perspectives and meanings, establish solutions, and attempt change. They proposed that using client-generated metaphors should follow steps of captur-

ing client metaphors, exploring them at experiential and meaning levels, using metaphors to create new possibilities, and anchoring metaphors' positive effects in clients' lives. Using therapist-provided metaphors should follow steps of starting from client experiences, providing metaphors to clients, using metaphors to create new possibilities, and anchoring metaphors' effects in clients' lives.

2.5 Cross-Theoretical Metaphor Therapy

Kopp et al. (1995; 1998) first explicitly used the term “metaphor therapy,” proposing the distinction between client-generated and therapist-generated metaphors. Although Kopp acknowledged Adlerian psychology' s strong influence, his work demonstrated that metaphor therapy could be used across different theoretical backgrounds (Kopp, 1995). He considered metaphor therapy not a new “therapeutic school,” but rather an approach emphasizing metaphorical communication between client and therapist, viewing metaphor as a psychotherapeutic perspective and intervention measure, and as the core of the therapeutic change process. Therefore, metaphor therapy is not limited to any single theoretical approach but highlights the common metaphorical characteristics of current psychotherapeutic theories and methods, attempting to integrate them.

In metaphor therapy, therapists first encourage clients to find and explore their metaphorical images closely related to their difficulties. Then, therapists encourage clients to perform metaphorical transformations and discover new understandings and meanings these transformations bring. Finally, therapists ask clients to explore similarities between their metaphors and prototype conditions and the value and significance of these transformations. For example, in one case, a client initially described her separating husband as a locomotive and herself as a tunnel, using these metaphors to depict how her husband always charged through and disrupted her life. However, after transforming her self-described “tunnel” metaphor into a “derailment” metaphor, she suddenly gained insight into how to handle her husband—by causing him to “derail” — and implemented steps including changing locks, involving lawyers, and obtaining court restraining orders, thus actually solving the separation interference. Kopp (1995; 1998) proposed that metaphorical cognition is a unique verbal-imagistic cognitive form integrating relatively conscious logical processes from logical/propositional cognition (using words to describe relationships) and relatively unconscious analogical processes from imagistic cognition (using images to directly describe relationships)—that is, using metaphor' s inherent transformer function to convert words into images for describing relationships. Kopp and Craw (1998) considered clients' exploration of their own metaphors and changes to their meanings as important sources of novelty, creativity, and change in metaphor psychotherapy.

In summary, different psychotherapy theories have provided distinct yet interconnected elaborations on metaphor' s role in therapy. Psychoanalytic/psychodynamic theories emphasize therapeutic metaphors' unconscious-level meaning exchange and their promotion of new meaning generation and

client insight. CBT suggests metaphors help bridge gaps between old and new knowledge, thereby creating new answers or promoting schema restructuring, with metaphorical expression's chunking and imagistic qualities strengthening long-term memory to maintain effects beyond therapy sessions. ACT, as the third wave of behaviorism, proposes that metaphors' non-judgmental, non-analytical, intuitive-experiential information transmission can bypass literal language's cognitive constraints, better promoting individual change. In postmodernism, narrative therapy and solution-focused therapy, though not elaborating detailed mechanisms, have developed clearly stepwise treatment protocols using therapeutic metaphors. Kopp proposed metaphor therapy's cross-theoretical characteristics, suggesting metaphors can integrate relatively conscious logical processing and relatively unconscious imagistic processing, representing an important factor for enhancing psychotherapy novelty and facilitating change. Therefore, metaphor is an effective therapeutic component or method recognized by most clinical psychotherapy theoretical orientations. Although different theories describe metaphor's role from various angles, they commonly view metaphor as a novel and effective therapeutic information transmission method that helps clients obtain new meaning, achieve cognitive restructuring, and ultimately promote internal change.

Empirically, most studies focus on exploring whether metaphors produce better intervention effects within certain treatment methods, with metaphorical CBT research being most concentrated. Overall, studies on whether using metaphors to transmit therapeutic information is more effective have not yielded highly consistent conclusions. Some studies find metaphorical interventions superior to conventional interventions in alleviating psychological symptoms, while others find both metaphorical and non-metaphorical interventions effectively relieve psychological distress without demonstrating metaphor superiority. We attempt analysis from three perspectives: First, some studies have design problems, such as using waitlist groups rather than equivalent-dose conventional intervention controls, or lacking control groups entirely. To clearly conclude about metaphors' specific effects on symptom improvement, studies should ideally add a non-metaphorical active intervention group with equivalent dosage to the metaphor group, in addition to a waitlist group, to obtain more reliable evidence. Second, even excluding design rigor issues, observing metaphor therapy superiority over non-metaphor therapy is not easy. Extensive research shows that individuals participating in any psychotherapy demonstrate significantly greater symptom improvement than no treatment. Therefore, comparing metaphor therapy against equally-dosed active controls (such as relaxation training, conventional CBT) to identify whether this specific psychological component produces significantly greater effects is actually quite difficult. Some researchers specifically note that placebo control in psychotherapy may have completely different meaning than in drug treatment: In drug treatment, placebo controls exclude psychological effects through sham treatment to observe active drugs' unique therapeutic effects, but psychotherapy may have no "sham" treatment because both experimental and so-called placebo conditions work

through psychological intervention pathways (Kirsch et al., 2016; Wampold et al., 2016). Thus, when psychological placebo groups contain equivalent active interventions, observing experimental effects is much more difficult than comparing active drug effects against drug-free placebo. Third, to observe metaphor's therapeutic advantages, measurement may need to shift toward metaphor's unique features—its distinctive cognitive processing such as greater cognitive involvement, creative meaning generation, and superior memory encoding. Using indicators reflecting these processes rather than broad emotional improvement measures makes metaphor intervention's specific advantages more observable. Deeply revealing psychological processes and mechanisms related to therapeutic metaphors is crucial for designing more targeted intervention protocols and enhancing therapeutic metaphor efficacy.

3. Underlying Mechanisms of Therapeutic Metaphors

3.1 Creative Insight

Insight is a classic domain of creativity (Abraham & Windmann, 2007) and a typical creative cognitive process (Huang et al., 2018). In psychotherapy, insight is clients' conscious awareness of new meaning (understanding problems from new angles) or new connections (relationships between past and present, therapist and significant others, emotions, cognitions and behaviors, seemingly unrelated events) during therapy (Castonguay & Hill, 2007). Chinese scholar Jiang Guangrong and colleagues term this “comprehension,” referring to clients forming new awareness of themselves and their world with therapist assistance, establishing new connections in personal meaning systems (Hu Shujing & Jiang Guangrong, 2010; Hu Shujing et al., 2014). In CBT, cognitive restructuring as the core therapeutic component is considered equivalent to insight, both emphasizing awareness of maladaptive attitudes and formation of adaptive new attitudes (Holtforth et al., 2007). In short, insight is clients' cognitive change process, considered an important event across psychotherapeutic orientations, a significant marker of therapeutic effect, and meaningful for clients, producing symptom change and positive emotions (Castonguay & Hill, 2007).

Metaphor-Triggered Insight As a highly creative therapeutic information transmission method, metaphor is considered effective for triggering insight in therapy. Case studies find that therapists' and clients' metaphorical language often brings insightful alternative solutions to clients' problems (Barlow et al., 1977). Research analyzing counseling dialogue corpora summarized four insight components: metaphorical perspective, recognizing connections, unexpectedness, and novelty (Elliott et al., 1985). Recent experimental research explored metaphor-triggered insight's psychological and neural mechanisms. The textual micro-counseling paradigm was designed to investigate whether metaphorical solutions trigger insight experiences in psychological distress situations under laboratory conditions (Yu et al., 2019; 2016). This paradigm simplifies client-therapist dialogue into question-answer text format, simulating CBT cognitive restructuring-based counseling processes. Each “question” (psy-

chological distress problem) was paired with metaphorical solutions, ordinary restructuring solutions, and no-restructuring problem restatements to observe differences between metaphor therapy, active control (ordinary cognitive restructuring), and baseline control (problem restatement). First, counseling experts and ordinary college students rated solutions' insight-inducing capacity, finding metaphorical solutions triggered the strongest insight experiences, ordinary restructuring solutions 次之, and problem restatement the weakest, indicating that providing metaphorical solutions in simulated psychological distress situations can trigger insight experiences with good reliability (Yu, Zhang, Zhang, & Zhang, 2016). Subsequently, researchers used fMRI to explore brain activity during metaphor-triggered insight, finding that compared to ordinary restructuring and problem restatement, metaphorical solutions not only activated extensive neural networks related to basic metaphorical language comprehension (including left inferior frontal gyrus, left middle and superior temporal gyri) but also specifically activated insight-related networks including bilateral amygdala, hippocampus, and fusiform gyrus. Finally, inspired by creativity' s "novelty" and "appropriateness" dimensions, researchers further examined whether matched psychological distress situations would trigger similar neuropsychological responses, finding that only matched metaphorical solutions produced significantly higher insight experiences than unmatched ones, with matched problem situations specifically enhancing activation in hippocampus, amygdala, and other regions for metaphorical solutions (Yu et al., 2021). Another study also found that matched problem situations more effectively enhanced individual insight experiences. These results indicate that metaphorical solutions only trigger stronger insight experiences and greater activation in insight-related brain regions (hippocampus, amygdala) when they are more valuable to individuals (i.e., when responding to matched psychological distress descriptions) (Liu et al., 2021). These studies confirm that using metaphorical solutions in psychological distress situations can behaviorally trigger stronger insight experiences and neurally activate brain regions related to insight.

Emotional Symptom Improvement and Metaphorical Insight/Creativity

in Therapy As an important marker of therapeutic effect, insight reflects clients' cognitive change and can subsequently bring emotional symptom improvement. Jennissen et al.' s (2018) meta-analysis systematically examined associations between client insight and psychotherapy outcomes across therapeutic orientations, finding a significant moderate correlation ($r = 0.31$) between insight and treatment outcomes—roughly equivalent to effect sizes obtained for therapeutic alliance, positive regard, and empathy (Elliott et al., 2011)—suggesting insight may be an important change mechanism across psychotherapy modalities. Another intervention experiment comparing metaphor intervention, non-metaphor intervention, and problem restatement control groups found the metaphor group rated solutions highest in insightfulness, showed lowest negative experiences during intervention, and demonstrated significant negative emotion reduction post-intervention, exhibiting optimal emotional improvement effects and demonstrating metaphor' s clinical effec-

tiveness in triggering insight and reducing emotional symptoms (Hu et al., 2018).

Two important studies, though not explicitly using therapeutic metaphors, directly compared creative versus non-creative conventional cognitive reappraisal explanations for negative emotional images in alleviating negative emotions (cognitive restructuring is generally termed cognitive reappraisal in laboratory tasks). One study found positive correlation between cognitive reappraisal creativity ratings and emotion regulation effectiveness, with creativity being an important predictor of negative emotion regulation effectiveness when presenting negative images with different creativity-level reappraisal explanations (Wu et al., 2017). Another study using similar tasks observed neural bases of creative cognitive reappraisal, finding that creative reappraisal produced immediate positive evaluation and lasting negative evaluation reduction for negative images; creative reappraisal was closely related to greater activation in amygdala, hippocampus, and ventral striatum, with amygdala predicting immediate emotion regulation effects and hippocampus and ventral striatum predicting sustained effects (Wu et al., 2019).

These findings show that both creative cognitive reappraisal and therapeutic metaphors relate to greater creativity in psychological processes and may share neural mechanisms involving stronger activation in amygdala and hippocampus. This indicates that providing highly creative cognitive explanations is a key factor in activating cognitive restructuring-related psychological and neural processes, with important implications for improving cognitive psychotherapy intervention effects.

3.2 Long-Term Memory

For psychotherapy effects to be long-lasting, clients' long-term retention of therapeutic processes and information is essential, as memory of actual therapy logically provides resources for subsequent daily life changes. Whatever clients gain from therapy must be preserved in some form within their long-term memory and experiential structures (Martin et al., 1990). Martin and Stelmaczek (1988) examined counselors' and clients' identification and recall of important counseling events, finding both tended to view expressions involving insight and understanding, new things or behaviors as important events. Clients considered important events likely to have profundity (explaining, critiquing, or analyzing meaning) and elaboration (using imagery and metaphorical expression). After 6 months, clients could still accurately recall previously identified important events. Another study provided four-day interventions and found clients more 倾向于 recalling therapist-intentional metaphor intervention content, reaching two-thirds proportion (Martin et al., 1992), further supporting the assertion that therapeutic metaphors are more memorable. Experimental research using the textual micro-counseling dialogue paradigm examined whether therapeutic metaphors have superior long-term memory compared to non-metaphors, conducting recognition memory tests for solutions at 20 minutes, 1 day, and 7

days post-learning, finding metaphor solution recognition significantly superior to non-metaphor solutions (Yu Fei, 2019). Therefore, when metaphorically expressed therapeutic information has better long-term memory, it has potential for more enduring therapeutic effects. Previous research also found that using memory support strategies during CBT to assist clients in remembering therapeutic points could effectively improve depression patients' dysfunction (Dong et al., 2017; Harvey et al., 2016). Future research should further explore how metaphor-induced memory effects subsequently improve symptoms.

Evidence also suggests that metaphors' superior long-term memory for therapeutic information may relate to stronger insight experiences triggered during information encoding. For example, clients are more 倾向于 recalling therapist-intentional metaphor intervention content and consider recalling therapists' metaphors more helpful for insight than recalling therapeutic events themselves (Martin et al., 1992). Textual micro-counseling task recognition memory tests found that metaphor solutions judged as remembered after one week had significantly higher insight experiences than those judged as forgotten, and remembered metaphor solutions showed significantly stronger hippocampus and amygdala activation during encoding compared to forgotten ones. Insight experience and hippocampus/amygdala activation could predict one-week memory performance for metaphor solutions (Yu Fei, 2019). This suggests that while therapeutic metaphor-triggered insight and memory may be distinct yet closely related psychological processes, insight involves deeper cognitive restructuring and new concept formation with positive emotional experiences that promote long-term memory encoding, while better memory facilitates sustained cognitive change, with both working together to produce better therapeutic effects.

3.3 Involvement Level

Client participation in therapy and cognitive processing of therapeutic information are prerequisites for therapeutic effectiveness, and metaphor' s involvement characteristics suggest that using metaphors to transmit therapeutic information can promote cognitive involvement to enhance effects. One study assigned experimental group videos where counselors used stories to give clients advice, while control group videos used ordinary language for advice. Results showed metaphors had no direct effect on attitude change but significantly predicted cognitive involvement level, which in turn significantly predicted attitude change (Kendall, 2010). Researchers proposed that compared to ordinary language, using metaphors to deliver suggestions enables greater client cognitive involvement with therapist-transmitted information, leading to deeper thinking, thus producing greater cognitive change. Although this study did not directly obtain evidence of metaphor' s involvement characteristics as a mediating mechanism strengthening therapeutic effects, it suggested close relationships among the three variables, with more complex boundary conditions requiring further exploration.

In summary, both early corpus analysis evidence and recent experimental evidence consistently indicate that therapeutic metaphors produce stronger insight experiences, deeper memory, and greater cognitive involvement. These advantageous cognitive functions help stimulate clients' cognitive motivation and resources, help them generate new meanings and perspectives, and enable therapeutic information to have lasting impact, thereby achieving high-quality psychotherapy characterized by vitality, change, and sustained memory influence, ultimately facilitating psychological symptom improvement and resolution. Moreover, these evidences support theoretical claims about metaphors' unique cognitive functions, providing evidence for the assertion that metaphor is a thinking vehicle and cognitive tool.

4. Summary

Metaphor is a linguistic form and cognitive mode that uses concrete, familiar concepts to express and understand abstract, unfamiliar concepts. Due to its effectiveness in transmitting therapeutic information, metaphors are widely applied by therapists. Early metaphor theories elaborated on metaphor's creativity and long-term memory characteristics. Different psychotherapy schools emphasize either client-generated or therapist-generated metaphors in practice, but regardless of type, therapeutic metaphors may effectively process, transmit, and preserve therapeutic information through high creativity, superior memory, and high cognitive involvement, thus possessing broad recognition across psychotherapeutic orientations. For example, psychoanalytic schools emphasize insight processes from unconscious-level meaning exchange; CBT emphasizes both cognitive schema restructuring promotion and memory functions from chunking and imagistic qualities; ACT emphasizes non-judgmental, non-analytical, intuitive-experiential information transmission to promote change; postmodern therapies emphasize helping clients retell their life stories or develop imagistic/symbolic expressions to generate more functional perspectives. At the empirical level, most research explores whether metaphor use produces stronger effects than conventional therapy within CBT frameworks, generally proving metaphor use effective. Recent experimental studies have successfully observed cognitive processing advantages proposed in metaphor theory, such as high cognitive involvement, high insight experience, and superior long-term memory, with insight and memory accompanied by stronger hippocampus and amygdala activation.

Thus, different psychotherapy methods show great commonality in understanding and applying therapeutic metaphors. Both theoretical construction and empirical measurement indicate therapeutic metaphors are cognitive tools and psychotherapeutic approaches with obvious cognitive processing advantages.

5. Future Research and Practice Recommendations

Regarding metaphor empirical research, we offer several considerations. First, employ scientific clinical experimental designs. As previously noted, inconsistent conclusions about whether metaphor therapy produces stronger intervention effects than conventional therapy may result from comparing metaphor active treatment with equivalent-dose conventional active controls. Future research should, based on study purposes and within randomized controlled clinical designs, ideally establish multiple control groups—simultaneously including waitlist (blank) controls, minimal-dose active controls, and equivalent-dose active controls—to obtain multiple comparisons revealing which control groups metaphor active interventions outperform. Second, emphasize measuring metaphor intervention processes. Beyond using broad emotional symptom changes from pre-post tests to reflect therapeutic metaphor advantages, greater emphasis should be placed on measuring metaphor processing psychological indicators such as involvement, creativity, memory, and associated neurobiological measures to more likely observe metaphor intervention's specific effects. In fact, when we treat insight and long-term memory triggered by metaphors as therapeutic effect manifestations themselves, this supports conclusions of metaphor superiority. However, if we require insight and memory to predict classic emotional symptom improvement indicators, further appropriate experimental designs and statistical methods are needed. Therefore, future research should emphasize measuring basic psychological processes activated by therapeutic metaphors and these processes' prediction of symptom improvement, which is clinically significant for deeply understanding therapeutic metaphor mechanisms and further using metaphor techniques in psychotherapy. Third, explore more aspects of psychological processes. Stott et al. (2010) proposed that therapeutic metaphors in CBT may exert information transmission and communication functions through these psychological features/components: imagistic cognition (requiring mental imagery to simulate embodied experiences when understanding metaphors); language-imagery combination (more adaptive information processing may manifest as flexible integration of literal logical language and embodied perceptual experience); maintaining two concepts in consciousness (simultaneously activating and maintaining multiple ideas in consciousness may facilitate effective problem solving); detecting commonalities (ability to detect commonalities among concepts may be a highly adaptive cognitive skill); and cognitive flexibility (metaphors transmit useful information that things can be viewed from multiple angles). Future research should explore under more comprehensive theoretical frameworks whether therapeutic metaphors have close relationships with these psychological processes and whether they achieve better symptom improvement through these processes.

Regarding psychotherapy practice, combining aforementioned research findings, we offer several recommendations for therapeutic metaphor use. First, concerning metaphorical creative insight, researchers found that metaphor solutions only trigger strongest insight experiences and hippocampus/amygdala activa-

tion under matched problem situations (i.e., only when metaphor solutions are more valuable to individuals). This suggests that only when clients understand the relationship between their psychological distress and therapeutic metaphors can expected therapeutic effects be achieved. Second, while metaphors mostly transmit information through language, Herzberg (2013) found that behavioral experience delivery of metaphorical information produced better intervention effects than text imagination, suggesting unique roles of experiential metaphors in transmitting therapeutic information. Skillful use of real experiences and feelings to transmit metaphors may produce better therapeutic effects. Third, because metaphors can vividly and efficiently transmit therapeutic information using relatively few words, they are suitable for psychological treatment protocols requiring high efficiency within short durations. Sumathipala (2014) designed, validated, and promoted a metaphor-based CBT knowledge transmission protocol, arguing from the perspective of extremely limited local professional psychological resources that metaphors are suitable for primary physicians without systematic professional training to simply, feasibly, and effectively transmit CBT principles to patients needing help. This suggests that adding vivid, flexible therapeutic metaphors to large-scale, strongly promoted public mental health services, combined with their vividness, high insight capacity, and memorability, has positive significance for attracting public interest in psychological intervention participation. Therefore, exploring psychological mechanisms in therapeutic metaphor research to develop clear, high-efficiency psychological treatment protocols within short durations, obtaining maximum efficacy with minimum cost, better meets national and societal mental health service needs—precisely the goals and pursuits of mental health researchers.

Although using metaphors to transmit therapeutic information has many advantages, this does not mean metaphorical communication suits all clients and all situations. Burns (2011) proposed that if therapists can effectively transmit therapeutic information using simple, direct language that clients effectively receive, there may be no special need for metaphors. Metaphors are unsuitable for clients with direct, concrete cognitive styles. Some clients may view metaphors as condescending or evasive, potentially damaging self-esteem. When clients are severely depressed, they may struggle to participate in the active interaction metaphors require, making expected therapeutic effects difficult to achieve. Using textual micro-counseling dialogue paradigms, metaphor solutions that triggered higher insight experiences in healthy participants did not show this advantage in depressed participants (Jiang et al., 2016). Therefore, Burns argues that even “well-crafted tools” cannot be useful in all work.

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