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Comparison of Motivational Interviewing with Acceptance and Commitment Therapy: A conceptual and clinical review

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Abstract

Background—Motivational Interviewing (MI) and Acceptance and Commitment Therapy (ACT) are two emerging therapies that focus on commitment to behavior change.

Aim—Provide the first systematic comparison of MI with ACT.

Methods—A systematic comparison of MI and ACT at the *conceptual level*, with a focus on their philosophical and theoretical bases, and at the *clinical level*, with a focus on the therapeutic relationship, use of language in therapy, and use of values in therapy.

Results—*Conceptually*, MI & ACT have distinct philosophical bases. MI's theoretical basis focuses on language content, whereas ACT's theoretical basis focuses on language process. *Clinically*, ACT and MI have distinct approaches to the therapeutic relationship, fundamentally different foci on client language, and different uses of client values to motivate behavior change. ACT, but not MI, directly targets the willingness to experience thoughts, feelings, and sensations.

Conclusions—Despite their conceptual and clinical differences, MI and ACT are complementary interventions. Collaborations between MI and ACT researchers may yield fruitful cross-fertilization research on core processes and clinical outcomes.

Keywords

Motivational Interviewing; Acceptance and Commitment Therapy; Review; Processes; Treatment comparison

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Motivational Interviewing (MI; Miller & Rollnick, 1991; 2002) and Acceptance and Commitment Therapy (said as the word "ACT"; Hayes, Strosahl, & Wilson, 1999) are two emerging therapeutic approaches that focus on commitment. Specifically, both share a focus on (1) enhancing commitment to behavior change, (2) using a client's values as a means for enhancing this commitment, and (3) specifically working in the medium of client's language processes to achieve this goal (Hayes et al., 1999; Miller et al., 1992; 2002). Moreover, both have been the focus of increasing interest by researchers and clinicians. Indeed, our review of the PsychInfo and PubMed databases showed that, between May 1999 and April 2009, there were 556 peer-reviewed publications on MI and 157 on ACT. While MI is the more established of the two approaches, both are now being gradually disseminated in major US healthcare systems (e.g., Veterans Affairs) and applied to a wide variety of maladaptive behaviors including substance abuse, smoking, chronic pain, psychoses, anxiety and stress, and depression (for reviews, see Arkowitz, Westra, Miller, & Rollnick, 2007; Hayes, Louma, Bond, Masuda, & Lillis, 2006; Ost, 2008; Powers, Zum Vorde Sive Vording, & Emmelkamp, 2009; Pull, 2009). We are aware of no prior published comparisons of MI with ACT.

The present review addresses this gap in the literature by aiming to provide a fair and balanced comparison of the core commonalities and differences between MI and ACT. Most readers will likely be familiar with either MI or ACT (but not both). To introduce MI and

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ACT researchers and clinicians and to each other, we have chosen the approach of defining and focusing on the key comparable features of MI and ACT at both the conceptual and clinical levels. We hope these comparisons will educate readers about both approaches and stimulate fruitful cross-fertilization research. To accomplish these goals, this paper will begin with a brief holistic overview of the two therapeutic approaches and then compare both MI and ACT at the conceptual and clinical levels.

Overview of MI and ACT

MI is a “client-centered directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence” (MI; Miller & Rollnick, 2002. p. 25). As a therapeutic style, MI does not follow a protocol for teaching clients skills to change but instead provides a way of interacting with clients so that their self-expertise can be utilized in order to facilitate change. In this sense, MI is not a stand-alone therapy delivered with the intention to accomplish behavior change. Instead, it prepares an individual for change by increasing contemplation and commitment to change. The fact that MI is a therapeutic style has made it possible for it to be readily used in conjunction with other therapies to increase motivation to change (Hettema, Steele, & Miller, 2005; Arkowitz, Westra, Miller, & Rollnick, 2007).

Derived from Carl Rogers’s client-centered therapy approach (Rogers, 1959), MI combines a supportive and empathic counseling style with a method of intentionally directing clients toward changing dysfunctional behavior. MI emphasizes creating a collaborative relationship and affirming the client’s autonomy to change. Indeed, Miller (2000) has proposed that these aspects of MI may be the most important to the change process because they allow for the expression of love in the form of understanding and unconditional positive regard. Therapists elicit motivation for change by drawing on the client’s goals and values. The foundation of MI is the context of a working alliance between client and counselor, what is known as “MI spirit” (Miller & Rollnick, 2002). This spirit (1) is collaborative rather than authoritarian, (2) evokes the client’s own motivation rather than trying to install it, and (3) honors the client’s autonomy. Major principles of the MI therapeutic stance include expressing empathy, developing an awareness of discrepancy between current behavior and important goals or values, “rolling with” or avoiding struggling with resistance, and supporting self-efficacy for change. The therapeutic techniques used to demonstrate these principles include asking open-ended questions, affirming, listening reflectively, and summarizing. The counselor uses techniques such as selectively making reflective statements in order to reinforce expressions of the client’s desire, ability, reasons, and need for change—what is known as “change talk.” Furthermore, the counselor offers periodic summaries of what the client has said—a kind of bouquet composed of the client’s own self-motivational statements (Miller & Rollnick, 2002).

ACT is described as a “unified model of human behavior change” (Vilardaga & Hayes, 2009) that focuses on helping clients enhance their commitment to change dysfunctional behavior while becoming *willing to experience* their distressing physical sensations, emotions, and thoughts that interfere with changing that dysfunctional behavior (Hayes et al., 1999). These processes are inextricably intertwined within a therapeutic relationship characterized by the following core features: (1) egalitarian stance, (2) common values and goals, (3) shared suffering and humanity, (4) perspective taking, and a (5) here-and-now awareness (Vilardaga & Hayes, 2009; Wilson & Hayes, 2008). Like MI, the ACT therapeutic stance includes expressing empathy, developing an awareness of discrepancy between current behavior and important goals or values, and avoiding struggling with resistance. As a specific therapy, ACT can follow a protocol for teaching clients skills to change. The fact that ACT is a specific therapy has made it possible for it to ideally function as a stand-alone therapy. In addition, various components of ACT can also serve as an

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adjunct to other therapies (Hayes, Louma, Bond, Masuda, & Lillis, 2006; Ost, 2008; Powers, Zum Vorde Sive Vording, & Emmelkamp, 2009; Pull, 2009).

A core therapeutic process of ACT is acceptance. In accordance with its Latin root *capere* meaning “take,” *acceptance* in ACT is the act of receiving or “taking what is offered.” *Acceptance* refers to the openness to experience thoughts, emotions, and sensations as they are and without any intention to change them (e.g., no intent to reduce anxiety). ACT’s definition of *acceptance* contrasts with other related terms in clinical psychology. First, *avoidance* is the opposite of acceptance: methods used in the service of *not* experiencing thoughts, emotions, and sensations as they are and with intent to change them (e.g., an intent to reduce anxiety). Second, *prolonged exposure* without safety behaviors aims to reduce anxiety whereas the goal of acceptance is to allow anxiety to be as it is with no intent to change it. Finally, *habituation*, which is one of the mechanisms of prolonged exposure, aims to reduce the anxiety response (VandenBos, 2007).

Unlike MI, ACT teaches a wide variety of therapeutic skills to explicitly facilitate acceptance of difficult thoughts, feelings, and sensations. These include experiential exercises and metaphors designed to help clients recognize thoughts as just words (i.e., Cognitive Defusion), become fully aware of the present moment with openness (i.e., Being Present), recognize the unchanging part of themselves that witnesses all that is experienced (i.e., Observing Self; Luoma et al., 2007). Acceptance facilitates the ACT core processes of commitment. The process of commitment includes using experiential exercises and metaphors to help clients articulate in words the purposely chosen and deeply meaningful directions of their lives (i.e., Values) and committing to repeated behavior changes guided by those values (i.e., Committed Action). Acceptance of one’s thoughts, emotions, and sensations is designed to facilitate the process of taking value-guided committed actions.

Summary

A broad comparison of MI with ACT suggests that (1) both rest on the foundation of a collaborative therapy relationship that is inextricably linked to their respective treatment models, (2) MI is similar to ACT’s commitment processes of Values and Committed Action, and (3) ACT, but not MI, teaches skills to facilitate acceptance of difficult thoughts, feelings, and sensations. As the following specific conceptual and clinical level comparisons will show, there are important stark and subtle differences between the two therapeutic approaches.

Conceptual level comparison

Philosophical basis of MI: Humanism

MI is consistent with the philosophical approach of Humanism. Since a complete exegesis is beyond the scope of this review, we will simply say that the Humanistic approach focuses on the importance of recognizing the dignity and worth of all people (Lamont, 1997). Carl Rogers is credited as one of the main developers of humanistic psychology, a client-centered approach to therapy directly based in the principles of Humanism. Miller & Rollnick (2002) have extensively described how MI was developed with an emphasis on the principles of Rogerian client-centered therapy. In addition, the Humanistic philosophy is echoed in the spirit of MI which is a “way of being with people” (p. 34) that is collaborative and respectful of client autonomy. Joining with the client and empowering his or her ability to choose is designed to enhance the client’s own motivation to change.

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Philosophical basis of ACT: Functional Contextualism

ACT is based on a philosophical point of view called functional contextualism (Hayes et al., 1999). As applied to clinical science, this philosophy examines how an individual's current and historical context influence and predict all of the individual's external (e.g., walking) and internal (e.g., thinking, sensing) behavior. Context refers to the individual's present and past physical, social, and biological environment in which his or her behavior occurs. Changing the contexts in which an individual's behavior occurs is what leads to behavior change. Moreover, this philosophy argues that it is impossible to understand an organism's behavior without an analysis of the current and historical context in which that behavior occurred. In short, context and behavior are inextricably bound. The standard for determining whether a behavior needs to be changed is whether the behavior is pragmatic for the individual: useful, functional, or otherwise helps an individual achieve a goal. In other words, workability is the validity criterion: do what works to achieve a life goal (Hayes et al., 1999; Hayes, Barnes-Holmes, & Roche, 2001; Luoma, Hayes, & Walser, 2007).

Theories relevant to MI: Self-perception Theory & Speech Act Theory

MI was "not derived from theory, but rather it arose from specification of principles underlying intuitive clinical practice" (Hettema, Steele, & Miller, 2005, p. 106). Miller described MI by exploring "links between this conceptual approach and prior psychological theories" (Miller & Rose, 2009, p. 528). According to Miller (1983), MI was developed from the application of principles from social psychology (i.e., de-emphasis on labeling, and emphasis on individual responsibility, internal attribution, and cognitive dissonance) with counseling strategies congruent with the principles of Rogerian client-centered-therapy.

MI was initially developed as a therapeutic style to facilitate change in the treatment of addictive behaviors (Miller, 1983; Rollnick & Miller, 1995). Since a primary challenge of treating this problem is the client's willingness to change their addictive behavior, MI is consistent with theories focusing on the language processes in behavior change and motivation. These theories include Self-Perception Theory (SPT; Bem, 1972), Speech Act Theory (SAT; Austin, 1962; Searle, 1969), Self-Regulation Theory (SRT; Kanfer, 1986; Brown, 1998), Self-Determination Theory (SDT: Deci & Ryan, 1985), and the Theory of Reasoned Action (Ajzen & Fishbein, 1980). Since a review of all five theories is beyond the scope of this article, we instead briefly outline the theories of change and motivation that emphasize the role of client language in the behavior change process: SPT and SAT.

Originally, Miller (1983) applied SPT (Bem, 1972) toward understanding important change processes in addictions treatment. SPT posits that individuals infer their attitudes about something from observing their own behavior. One way to observe one's own behavior is to observe one's own speech. The theory suggests that if a client continually hears him/herself argue for change, then his or her attitudes about the benefit of changing will be strengthened, thereby leading to observable behavior change. MI applies these principles of SPT by having a client generate his or her own argument for change (i.e., change talk) and reducing his or her argument against change (i.e., counter change talk). When there is an increase in a client's statements about change, he or she adopts new attitudes and beliefs favoring change, and thereby increases the likelihood of change (Hettema, et al., 2005; Miller, 1983). Change talk is defined as desire, ability, reason, need, and commitment to change and can be conceptualized on a positive (for change)/negative (against change) valence (Amrhein, Miller, Moyers, & Rollnick, 2005) or as two different constructs: change talk and counter change talk (Moyers & Martin, 2006). Counter change talk has also been referred to as sustain talk (Miller, Moyers, Amrhein, & Rollnick, 2006).

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More recently, SAT has been applied toward understanding how MI operates in the interaction between the client and therapist. SAT describes how language obligating the speaker to perform an action in the future (e.g., "I will stop drinking") is predictive of that behavior actually taking place. The obligatory nature of these self-generated statements is posited to drive behavior change (Amrhein, 2004). Amrhein and colleagues (Amrhein, Miller, Yahne, Palmer, & Fulcher, 2003) provided initial evidence that this type of language, called "commitment language," predicts drug treatment outcomes. Commitment language during a motivational interview has also predicted reductions in gambling behavior (Hodgins, Ching, & McEwan, 2009).

Building on SAT, Miller & Rose (2009) have recently proposed a theoretical model of how MI changes behavior. They propose that MI training results in higher levels of therapist empathy, MI spirit, and other behaviors consistent with the MI approach. These therapist attributes and behaviors result in increases in client change talk. Finally, their model posits, as hypothesized by Amrhein (2004), that the relationship between change talk and behavioral change is mediated by client commitment language. However, recent process analyses of MI have demonstrated that simply talking about change, not necessarily just committing to change, can result in behavior change. Specifically, these change statements are facilitated by an MI therapist's global attributes and specific behaviors (Gaume, Gmel, Faouzi, Daeppen, 2008; Moyers, Miller, & Hendrickson, 2005; Moyers & Martin, 2006; Moyers, Martin, Christopher, Houck, Tonnigan, & Amrhein, 2007; Moyers, Martin, Houck, Christopher, & Tonigan, 2009; Catley, Harris, Mayo, Hall, Okuyemi, Boardman et al., 2006; Thrasher, Golin, Earp, Tien, Porter, & Howie, 2006).

Guided by SAT, studies of MI interaction processes have began to reveal how MI may be involved in increasing motivation and strengthening commitment to change. The frequency of MI-consistent therapist speech (e.g., affirming, gaining permission before giving advice, etc.) and MI-consistent skills (e.g., open questions, reflections) have positively correlated with both client change talk (Catley et al., 2006; Moyers et al., 2009; Thrasher et al., 2006) and contemplation of change (Tollison, Lee, Neighbors, Neil, Olson, & Larimer, 2008). In addition, these studies demonstrated that MI-inconsistent therapist speech (e.g., labeling, judging, advising without permission, etc.) was negatively related to client change talk. Studies using more rigorous sequential analyses have demonstrated that MI-consistent therapist speech is significantly more likely to be followed by client change talk while MI-inconsistent therapist speech is significantly more likely to be followed by client counter change talk (Gaume, Gmel, Faouzi, & Daeppen, 2008; Moyers & Martin, 2006; Moyers et al., 2007). Finally, Gaume, Gmel, & Daeppen (2008) found that only ability-to-change talk was a significant predictor of decreases in drinking quantity whereas other studies have demonstrated that a composite variable consisting of all forms of change talk is related to reductions in alcohol use (Moyers et al., 2007; 2009). In addition, there may be other aspects of MI, such as avoiding confrontation, labeling, and judgment and employing specific exercises that also contribute to the change process and differentiate MI from other treatment approaches (Apodaca & Longabaugh, 2009)

Theoretical basis of ACT: Relational Frame Theory

Functional contextualism is the philosophical basis of Relational Frame Theory (RFT; Hayes et al., 2001), the theory that forms the basis of ACT. RFT is a theory of how humans learn to use language through their interactions with the environment. RFT acknowledges that language is critical for describing, categorizing, evaluating, problem solving, creativity, and invention. Language is also important for the development, maintenance, and progress of human cultures. However, RFT suggests that language is a primary source of human suffering. Specifically, humans use language to judge themselves or others, relive unpleasant or traumatic events in their minds, worry, and obsess. Language can lead some

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people to, in a sense, "live in their heads," rather than with a full awareness of the environment around them. When language guides behavior, individuals begin to lose contact with the contingences of the environment around them.

A key postulate of RFT is that human language operates through a process called "relational framing." Briefly, relational framing is the process by which overt environmental, cognitive, physiological, & emotional stimuli become related to one another—and thereby take on each other's qualities & functions—in every imaginable way. These relations can even be formed even in the absence of a direct learning history. For example, a smoker may have an urge to smoke while in a non-smoking section of a restaurant he has first visited due to a history of associations between the word "smoke," an urge, restaurants where he or she used to enjoy smoking, etc. RFT suggests that trying to control these relations will result in a paradoxical effect: new relations are formed that interfere with behavior change. For example, attempting to mentally distract from an urge to smoke (e.g., by doing a crossword puzzle) now becomes related with increased urges to smoke. In general, *attempts to avoid, control, or change* these relations can have the following *consequences:* (1) increase in the strength of the relations between overt environmental, cognitive, physiological, & emotional stimuli and (2) decrease in an individual's ability to focus on and engage in behaviors consistent with his or her long-term values due to the short-term focus on trying to avoid, control, or change these relations. Patterns of action detached from long-term desired qualities of living emerge and gradually dominate in the person's repertoire. Avoiding, controlling, and trying to change these relations can serve a barrier to effective behavior change.

In contrast, RFT suggests that increasing willingness to experience (and not change) these relations increase value-guided behavior. A person, for example, with the thought "I want to smoke right now" could simply allow this thought to come and go without actually reaching for a cigarette. Such acceptance-based interventions are posited to have the following beneficial *consequences:* (1) weakening of the relations between overt environmental , cognitive, physiological, & emotional stimuli and (2) increase in an individual's ability to focus on and engage in behaviors consistent with his or her long-term values. Over 70 empirical studies provide empirical support for RFT's basic tenets (for a review, see Hayes et al., 2001 and for recent empirical articles, see Gorham, Barnes-Holmes, Barnes-Holmes, & Berens, 2009; Lipkens & Hayes, 2009; O'Hora, Peláez, Barnes-Holmes, Robinson, & Chaudhary, 2008; Villatte, Monestès, McHugh, Freixa i Baqué, & Loas, 2010; Vitale, Barnes-Holmes, Barnes-Holmes, & Campbell, 2008; Weinstein, Wilson, Drake, & Kellum, 2008).

Published research to date has provided some promising evidence that ACT is effective at increasing self-reported acceptance, but we are not aware of any studies measuring ACT's effect on changing value-guided commitment to change behaviors. Even though certain psychological disorders are focused more on one type of internal experience (e.g., urges to drink in the case of alcohol dependence), ACT research to date has primarily focused on the *overall* willingness to experience emotions, thoughts, and sensations (Hayes et al., 2006). This research has found that ACT does increase overall acceptance for a fairly broad range of problems, including weight loss (Lillis, Hayes, Bunting, & Masuda, 2009; Tapper et al, 2009), work stress (Bond & Bunce, 2000), pain (Wicksell, Ahlqvist, Bring, Melin, & Olsson, 2008; Wicksell, Melin, Lekander, & Olsson, in press), diabetes (Gregg, Callaghan, Hayes, & Glenn-Lawson, 2007), smoking (Gifford et al., 2004), and psychoses (Gaudiano & Herbert, 2006).

The primary means of measuring acceptance has been the Acceptance & Action Questionnaire (Hayes, Strosahl, Wilson et al., 2004), which is designed to measure the "ability to fully contact the present moment and the thoughts and feelings it contains without

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needless defense, and, depending upon what the situation affords, persisting or changing in behavior in the pursuit of goals and values" (Hayes et al., 2006). As its name implies, the AAQ is designed to measure both acceptance and action, but a number of the items in the scale measure both concepts simultaneously (e.g., "In order for me to do something important, I have to have all my doubts worked out.") and thus the questionnaire is scored as one scale. Several ACT interventions have increased AAQ-measured acceptance and action, including interventions on work stress (Bond & Bunce, 2000) and for a general clinical sample primarily with depression and anxiety (Lappalainen et al., 2007). Since the AAQ has serious psychometric limitations (e.g, low internal reliability), a revised version (i.e., AAQ-II) with higher reliability and a stronger factor structure has been developed but is still a one-score scale and is currently unpublished (Bond et al. in review). Several acceptance-based questionnaires have been developed for specific problem areas (e.g., smoking; Gifford et al., 2004) have also been developed and tested. For example, using a smoking-specific adaptation of the AAQ, an ACT intervention increased smokers overall willingness to experience their internal triggers (e.g., thoughts and sensations) to smoke (Gifford et al. 2004). This willingness at post treatment was predictive of smoking cessation at 12 months post treatment (Gifford et al., 2004).

Summary and future research directions

Philosophically—whereas MI is consistent with the Humanistic philosophy that emphasizes the role of autonomous choices in behavior change, ACT is based on the functional contexualist philosophy that emphasizes the role of context and pragmatism in behavior change. Since these philosophies can complement each other, a cross-fertilization of them would be valuable in the future. For example, MI could be enriched by a philosophical focus on context and workability while ACT could be enriched by a philosophical focus on autonomous behavior choices.

Theoretically—both MI and ACT are consistent with theories that broadly emphasize the role of language in human behavior. MI is consistent with a broad array of theories, especially SPT and SAT, that focus on using language to (1) develop discrepancy between current behavior and desired behavior, (2) elicit genuine statements about changing behavior, and (3) shape the *content* of language related to change. In contrast, ACT's theoretical basis, RFT, posits that, although language has led to tremendous human achievement, it is also a primary source of human suffering. According to RFT, language can be used by humans to attempt to avoid the experience of aversive emotions and sensations. RFT suggests interventions focused on developing a distance from this natural language process can free up individuals to focus on taking actions guided by their core values.

The language *content* focus in MI's theories contrasts with the language *process* focus in ACT's theory. Whereas SPT theory rests on the assumption that attitude change is a fundamental driver of observable behavior change, RFT emphasizes that attitudes (and all forms of language) can operate independently from observable behavior. Regarding SAT, commitment language is a form of language *content* and the validity of the content of the statement depends on the context in which it is spoken. MI aims to harness the influence of language in the change process by creating a context in which change statements are more likely to result in behavior change. In contrast, RFT focuses on language *process*. From an RFT perspective, what a person says about changing (e.g., "I will stop drinking") is regarded as a form of language content that, void of context, is not central to understanding whether they will change and changing the content of language is not necessary for changing behavior. ACT aims to undermine language processes that inhibit change.

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Despite these key contrasts, a cross-fertilization of these theories would be valuable in the future. For example, a skillful MI therapist may use reflective listening to stimulate the client to verbalize (1) a broader range of the contingencies governing a specific behavior (e.g., alcohol use) and (2) less harmful behaviors that serve the same function as the target behavior (e.g., healthier ways of coping with anxiety that triggers alcohol use; Christopher & Dougher, 2009). In this sense, MI may serve to undermine the use of language processes that limit psychological flexibility related to the problem behavior. Finally, ACT therapy research examining the link between clients' commitment language and future behavior change could test the extent to which SAT holds in the context of ACT therapy.

The overall differences between MI and ACT raise several key clinical research opportunities. First, through the use of their *distinct* therapeutic techniques, is it possible that MI and ACT nonetheless achieve *similar* effects on client motivation to change? Perhaps it is possible to intervene on motivation *either* through experiential exercises and creative non-literal forms of language (i.e., metaphors) *or* through the use of reasoned argument and literal forms of language that change the function of contingencies governing behavior. In other words, MI and ACT may simply be taking different routes to arrive at the same destination: enhanced commitment to behavior change. Moreover, it is possible that some kinds of clients respond more effectively to one route (e.g., argumentation) than another (e.g., metaphors). One way to test that, for example, would be to conduct a randomized trial comparing MI and ACT for a specific behavior, with a key focus on determining the extent to which: (1) both MI and ACT increase the choice to make a behavior change, (2) MI, but not ACT, increases perceived ability to change and the resolution of ambivalence about changing a particular behavior and (3) ACT, but not MI, increases acceptance of thoughts, emotions, and sensations. Moderation analysis could determine whether certain characteristics of clients indicate whether they will respond favorably to MI versus ACT.

A second clinical research opportunity would be to develop and test an enhanced MI intervention that, in a conceptually-coherent way, combines current MI strategies to increase motivation to change with ACT strategies for increasing acceptance of internal experiences (e.g., thoughts, emotions, and sensations). MI could be useful for enhancing one's willingness to engage in the processes of acceptance and commitment. A third opportunity, as generously suggested to us by William Miller, would be to compare MI and ACT as two different approaches for helping clients increase their willingness to experience their thoughts, emotions and sensations.

Clinical Level Comparison

MI therapeutic relationship

An interpersonal interaction style is the core feature of the MI therapeutic relationship. Miller and Rollnick (2002) describe the spirit of MI as a "way of being with people" (p. 34) characterized by establishing a collaborative relationship, respecting client autonomy, and evoking client motivation to change. As a collaborator, the MI therapist views the client as a person who already has the tools necessary for change rather than someone who needs to be imparted with the therapist's wisdom. The client is accepted for who he is. Although the spirit of MI involves emphasizing these elements of the therapeutic relationship, resistance can and does arise in all forms of relationships. According to Miller & Rollnick (2002) "client resistance behavior is a signal of dissonance in the counseling relationship" (p. 46) and is characterized by arguing, interrupting, ignoring, and negating. Confrontational therapist behavior has been shown to increase client resistance, which is a strong predictor of poor therapeutic outcomes (Miller et al., 1993). Informed by this evidence, MI seeks to roll with resistance by acknowledging that it is not a flaw of the client, but instead, it is a signal that the interactional process between therapist and client is now not conducive to

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change. When resistance arises in the interaction, the therapist adaptively changes approaches to continually work with the client, rather than against him, to evoke his or her strengths and skills to overcome the barriers impeding change and to prevent the stifling of the change process. To do this, the therapist must be a very engaged and active listener. Such a listener empathically understands where the client is coming from, picks up on strengths, and hears out the client's fears. The combination of collaborator and listener puts the therapist in a position that is equal to the client. Power is shared in that the therapist is viewed as having expertise in facilitating change while the client is viewed as the expert on himself. The MI therapist respects the client's ability to choose and provides information to the client only when the client seeks it or has demonstrated that he would be receptive to it. The therapist also provides the client with power by allowing him to set the therapeutic agenda and explore what the client feels is important to him.

ACT therapeutic relationship

The ACT therapeutic relationship is inextricably linked to the unique core conceptual and clinical features of the ACT model. Philosophically, ACT's functional contextualist approach suggests that the therapy relationship is evaluated in terms whether it serves shared goals and values (function) rather than whether it is deep or shallow (form; Vilardaga & Hayes, 2009). Theoretically, the RFT process of deictic framing, which specifies a relation in terms of the perspective of the speaker, is believed to be central in developing empathy toward the client. For example, to enhance deictic framing, the therapist might instruct him/herself before a session to imagine the thoughts, feelings, and sensations his or her client might be having (Vilardaga & Hayes, 2009).

Clinically, ACT therapists try to express a sense of shared suffering, values, and humanity. For example, an ACT therapist might use the Two Mountains metaphor (Hayes et al., 1999) which illustrates that both the client and therapist are each "climbing their own mountains" (i.e., we each suffer while living our values). The therapist's job is make the client aware of places where the client "might slip" (i.e., provide an outsider's perspective on the client's problem). ACT therapists emphasize the possibility that, given a slightly different set of life events, the therapist could be the one with problems similar to those of the client. ACT's emphasis on context implies that fundamental change is possible for everyone, given a shift in the context of that person's life. ACT therapists are encouraged to self-disclose in the service of the client's interests. Consistent with empirical evidence that well-timed and thoughtful self-disclosure pertinent to a therapeutic issue can be useful (Safran & Muran, 2000), ACT therapists try to be willing to use self-disclosure in the service of the client. If done effectively, self-disclosure allows therapists to model an accepting stance toward their own struggles, while also modeling the ability to act effectively and consistently with their values. In contrast with ACT, self-disclosure is neither prescribed nor proscribed in MI. Finally, ACT therapists aspire to model mindfulness in the session. For example, an ACT therapist might use the Sweet Spot exercise, in which the client expresses a moment in her life that was sweet while the therapist attempts to mindfully stay aware of and appreciate the client's expression (Wilson & Sandoz, 2008).

Looking beyond these unique features deeply rooted in the ACT model, we do find important similarities between the ACT and MI therapy relationship. First, like the MI therapist, the ACT therapist relates to the client from an equal, compassionate, genuine and sharing point of view and respects the client's ability to shift from ineffective to effective ways of coping. Second, like the MI therapist, the ACT therapist tailors interventions to fit the client. As a reflection of ACT's functional contextualist philosophical roots, intervention tailoring is guided by a functional analysis of the client's behavior. Third, like MI, the ACT therapist rolls with client resistance (e.g., client's argumentation with the therapist). ACT therapists roll with resistance in these ways: (a) therapists show willingness to experience

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their own discomfort and (b) therapists do not argue, lecture, coerce, or attempt to convince the client. Finally, like MI, the ACT therapist tries not to express his or her own opinions about a client's genuine experience. These last points illustrate that the ACT therapist tries to model an accepting stance and suggest that behavior change comes from the client's own experience (Luoma et al., 2007).

MI's use of language in therapy

MI therapists elicit and subtly direct the *content* of client's speech about problematic behavior (Miller & Rollnick, 2002). A primary way that MI therapists direct speech content is through the interviewing methods and interpersonal interaction styles represented by the acronym OARS (Miller & Rollnick, 2002). The therapist asks "O"pen ended questions, as opposed to closed-ended questions, to provide the client the opportunity to elaborate on his or her thoughts and feelings while also minimizing the opportunity for the client to be brief. The therapist uses "A"ffirmations to help the client see his or her own strengths and give him/herself credit for the effort made so far in the change process. The therapist listens "R"eflectively to provide the client a mirror to hear his or her own thoughts articulated and develop a sense of being understood by the therapist. Finally, along the lines of reflective listening, the therapist occasionally "S"ummarizes what they have discussed to highlight and reiterate the important points of the client's speech content.

In addition to the OARS technique, Miller & Rollnick (2002) articulate a number of other key techniques for shaping the *content* of client speech. First, asking evocative questions is designed to help the client articulate speech about how the target behavior is influencing his or her life and how change could be beneficial. Second, a strategic element of reflective listening is prescribed in which client statements toward change are selectively reflected in order to evoke and strengthen the client's own change agenda. This crucial element of MI allows the client to hear his or her own arguments for change and increases the likelihood of future change talk (Moyers et al., 2009). Second, using the importance ruler to gauge where the client is on a scale of 1-10 on perceived importance of change can provide opportunities to increase client's speech about change. Third, exploring the costs and benefits of change (i.e., decisional balance) will help the client generate speech about what is preventing change and how change could be beneficial.

ACT's use of language in therapy

ACT uses experiential exercises and metaphors in order for the clients to directly experience an ACT process, rather than having it interfered with by language content (Hayes et al., 1999). Metaphors and exercises may have only very brief and broad introductions as a minimal verbal prompting to navigate through an intervention. Going into explanations of what an exercise is supposed to do, what a metaphor is supposed to mean, and why they are supposed to be helpful are believed to interfere with making these processes effective. According to the ACT perspective, clients do not need explanations to know if a metaphor or exercise is effective for them. Instead, they will see for themselves whether the metaphor or exercise is effective. They will know because they are the ones living in their skins. In short, the irony of not going into explanations is that the client actually learns more about acceptance and gets more out of the intervention overall.

As discussed in Hayes et al. (1999), metaphors are used in ACT for four main reasons: *First*, because metaphors are not specific and proscriptive, it is more difficult for clients to think of what they are "supposed to do." The client can see that there is no obvious way to be a "good client" or a "bad client" when responding to metaphors. *Second*, metaphors are not simply logical or linear. Instead, metaphors present a picture of how things work for a given problem. *Third*, metaphors are designed to capture, very quickly, the essence of the client's

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situation. They point to the possibility that there is a counterintuitive solution to the client's problem while calling attention to the ineffectiveness of language content approaches to this problem. *Finally*, metaphors can be easily remembered and can signify many things at the same time without using a lot of words. Metaphors can demonstrate complex or paradoxical points using simpler or more concrete illustrations (Hayes et al., 1999).

MI's focus on values in therapy

MI focuses on values in order to motivate behavior change. In MI, values are described as behavioral ideals, preferences for experiences, and how a people define themselves (Wagner & Sanchez, 2002). MI therapists attempt to amplify the discrepancy between current behavior and values in order to resolve the ambivalence related to engaging in a target behavior. For example, engaging in a target behavior may serve less important values, but may violate more important values embodied in a behavioral ideal. To develop discrepancy between the target behavior and these higher order values, the MI therapist contingently uses OARS to have the client elucidate what his or her values are and explore the client's views on how they conflict with the target behavior. By asking evocative questions, the MI therapist can hone in on the client's most highly held values and perceived behavioral ideals while using reflective listening to mirror the client's own perceived discrepancy and speech for change.

To clarify values specifically related to the target behavior, the MI therapist can have the client engage in a decisional balance exercise in which the client identifies the reasons for and against maintaining the status quo and the reasons for and against changing the target behavior (Miller & Rollnick, 2002; Prochaska, Velicer, Rossi, Goldstein, Marcus, Rakowski, et al., 1994). This exercise has predicted positive outcomes when used in the context of MI (Apodaca & Longabaugh, 2009). However, more recently Miller & Rollnick (2009) have described how decisional balance is contraindicated in MI in that it may reinforce counter change talk and should only be used with clients who initially offer little or no argument for change.

The MI therapist also works with the client to clarify and explore values that may be affected by the target behavior. To do this, the MI therapist can have the client engage in a values card sort exercise (Miller & Rollnick, 2002; Miller & C'de Baca, 2001). The client sorts through cards with commonly held values (e.g., humor, honesty, etc.), selects the most highly regarded values, and ranks them by importance. In addition to more formal exercises, the therapist monitors the client for the articulation of his or her own values in session (Wagner & Sanchez, 2002). The therapist then reflects the client's speech content on values and explores to what extent these values are congruent with the target behavior.

ACT's focus on values in therapy

A variety of metaphors and exercises focused on values are the primary methods that ACT uses to enhance motivation to change. Values have been defined in ACT as verbally constructed, global, desired, and chosen life directions (Dahl, Wilson, Luciano, & Hayes, 2005). They are qualities of ongoing action across time. To be giving or caring is a value, illustrating the idea that values are like the verbs and adverbs of life. The metaphor of driving in a specific direction in one's life journey conveys the ACT notion of values. Values are like a compass heading, not the destinations one reaches during life's journey. A person has the freedom to choose, metaphorically-speaking, to go "east." Along the way, they may reach specific destinations (e.g., achieving a goal), but heading "east" is not a destination that one ever reaches (Hayes & Smith., 2005, pp. 153-155).

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Values require no reasons. For example, having the value of loving one's children requires no reasons or any verbal justification. Once values are clarified, choices (e.g., to spend an evening with one's children) can then be made guided by one's values rather than guided by reasons. From an ACT point of view, giving reasons for a choice can risk generating counter-reasons, reasons for choosing something else, or self-judgments for choices made and not made. Once someone has articulated one's values, ACT helps undermine the reason-giving process by simply encouraging the individual to make choices and take actions guided by those values.

A wide variety of experiential exercises are used in ACT to help clients work on their values. These include exercises in helping clients (1) distinguish choices from reasoned actions (e.g., choice vs. decision; Hayes et al., 1999; pp. 212-214, 218-219), (2) understand values as a process of living, not outcomes to be achieved (process vs. outcome, direction vs. goal; Hayes et al., 1999; pp. 219-222), (3) imagining people giving eulogies they would most want people to hear at their funeral (eulogy exercise, Hayes et al., 1999, pp. 215-218), (4) writing what they would want written on their epitaphs (tombstone exercise, Hayes et al., 1999, pp.217-218), and (5) defining what they value in important domains (e.g., parenting) of their lives (valued domains exercise; Hayes & Smith, 2005, pp 170-176). As in all ACT interventions, both therapists and clients are encouraged to invent new exercises and metaphors (and tailor existing ones) to fit the client's needs.

Similar to MI, ACT uses an exercise of developing discrepancy between one's values and actual behavior in order to help motivate behavior change. Specifically, therapists invite clients to rate how important their values are in a variety of life domains (e.g., career). Then the clients rate, according to their actual behavior, how well they have been currently behaving in accordance with (or living consistent with) their values in that life domain. They then subtract their behavior score from their importance score in order to arrive at a discrepancy score. Scores indicating the highest level of discrepancy of actual behavior from what they value are designed to help motivate clients to make a plan and take actions that are in line with those values (Hayes & Smith, 2005).

Summary and future directions

Regarding the role of the therapeutic relationship—ACT and MI both approach the therapy relationship from points of view that are deeply rooted in their respective models. Nonetheless, both ACT and MI emphasize an egalitarian relationship between client and therapist, emphasize the value of the client's experience in contributing the change process, adapt interventions to the client, and both explicitly avoid confrontation with the client. MI, but not ACT, explicitly encourages the therapist to roll with resistance by identifying how it is occurring in the relationship and adapting the therapist's approach and behavior to empower the client in the change process. ACT, but not MI, explicitly encourages self-disclosure, emphasizes that a change in context could result in the therapist being in the same situation as the client, teaches therapists to be willing to experience both their own and their client's discomfort. An overall research question this raises is: To what extent do these basic qualities of the therapy relationship account for the effectiveness of MI and ACT? Consistent with the observations of Wampold (2001) and others, these basic therapeutic relationship qualities may reflect common factors that contribute substantially to the effectiveness of both MI and ACT. Future empirical work should examine the extent to which MI and ACT share factors common to all major psychotherapies.

There are enormous research opportunities for testing this overall scientific question. To date, we are aware of only a small number of studies in the MI empirical literature, and none in the ACT empirical literature, examining the contribution of the therapeutic relationship to behavior change processes. For example, in MI, interpersonal skills have been associated

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with higher levels of client change talk and client engagement in therapy (Catley, et al., 2006; Moyers, Miller, & Hendrickson, 2005) and positive outcomes (McNally, Palfai, & Kahler, 2005). Moreover, therapists high in interpersonal skill can be directive in a way that is inconsistent with MI yet still be successful in increasing client engagement in therapy (Moyers et al., 2005). Outside of the MI literature, extensive research has demonstrated that empathic, collaborative, client-centered attributes of therapists contribute to a positive working alliance (for a review, see Ackerman & Hilsenroth, 2003). To build on this research and the descriptions of the MI and ACT therapeutic stances, specific studies that are needed now would be to empirically compare the extent to which the MI and ACT therapeutic stances: (1) are similar when compared on the same measure of therapeutic relationship, (2) change the underlying psychological processes targeted by the respective therapies (e.g., change talk in MI; acceptance in ACT), and (3) contribute to overall treatment outcomes. In addition, research studies aimed at investigating how the therapeutic relationship may be altering in-session behavioral contingencies would shed some light on why these processes facilitate more effective therapy. For example, empathy and acceptance may make it more likely for a client to verbalize previously punished behavior (Christopher & Dougher, 2009). Future research should test the extent to which expressing empathy in MI and encouraging acceptance in ACT play a role in helping clients approach previously avoided emotions, sensations, and thoughts. In addition to investigating mechanisms of change, investigating mechanisms that impede change should also be studied. Stimulated by a recent study of the impact of MI on resistance (Aviram, Westra, & Kertes, 2010), we suggest that process measures of observed resistance should be used to comparatively examine the degree to which each therapeutic approach is effective in minimizing resistance.

Regarding the role of language in therapy—MI focuses on the *content* of client language whereas ACT focuses on changing the *process* of client language. Despite these fundamental differences, we see important clinical and research opportunities for utilizing either therapy's approaches to language. Clinically, it would be consistent with ACT to use MI-focused OARS communication techniques. For example, OARS would be useful for helping clients describe their experience of an experiential intervention or to elaborate on a metaphor. Moreover, it would also be consistent with MI for therapists to use metaphors to describe their clients' readiness, willingness, and ability to change. Such blending of these communication approaches could be tested in research studies aimed at determining whether these enhancements improve the effectiveness of either MI or ACT. Using different communication modalities may help improve client's understanding and learning of each approach, thereby contributing to greater changes in the psychological processes targeted by these respective treatment approaches.

Regarding the role of values in therapy—ACT and MI's shared focus on values as a core driver of human motivation cannot be underestimated. However, the therapies have differing notions about what values are: in MI values are described as behavioral ideals, preferences for experiences, and how a people define themselves (Wagner & Sanchez, 2002) whereas in ACT values refer to verbally constructed, chosen life directions (Dahl et al., 2005). These differing definitions influence the design and use of each therapy's techniques for intervening on values. For example, MI focuses on reason-giving as one (of several) methods to enhance motivation to change whereas ACT distinguishes choices from reasoned actions (e.g., choice vs. decision; Hayes et al., 1999; pp. 212-214, 218-219) in order to help undermine the process of reason-giving and to enhance value-guided choices. But like MI, ACT helps clients definine what they value in important domains (e.g., parenting) of their lives (valued domains exercise; Hayes & Smith, 2005, pp 170-176). For clinicians, clinical use of the values card sort exercise from MI could enhance the exploration of values in ACT therapy. For researchers, empirically determining the most effective methods for focusing on

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values to change behavior could greatly benefit practitioners of both MI and ACT as well as provide insights into how focusing on values changes behavior.

Overall Summary and Conclusions

The overall aim of this article was to elucidate core commonalities and differences between ACT and MI. We provide an overall summary of these commonalities and differences in Table 1. From this comparison, we glean two key areas of future research. First, empirical research is needed to test whether MI and ACT do indeed target similar and distinct theoretical processes. Such research would also provide valuable information about *how* MI and ACT work. Meditational analyses would be valuable for testing how they work. Second, there is a great opportunity to develop and empirically test a conceptually-coherent combination of MI with ACT: combine MI's focus on enhancing motivation and developing a committed action plan with ACT's focus on helping clients develop willingness to experience distressing thoughts, emotions, and sensations.

In conclusion, despite their conceptual and clinical differences, MI and ACT share important similarities and are complementary interventions. Collaborations between MI and ACT researchers may yield fruitful cross-fertilization research on core processes and clinical outcomes. Both therapies could be improved by learning from and comparing each other's approaches.

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References

1. Ackerman SJ, Hilsenroth MJ. A review of therapist characteristics and techniques positively impacting the therapeutic alliance. Clinical Psychology Review. 2003; 23:1–33. [PubMed: 12559992]
2. Amrhein PC. How does motivational interviewing work? What client talk reveals. Journal of Cognitive Psychotherapy: An International Quarterly. 2004; 18:323–336.
3. Amrhein PC, Miller WR, Yahne CE, Palmer M, Fulcher L. Client commitment language during motivational interviewing predicts behavior outcomes. Journal of Consulting and Clinical Psychology. 2003; 71:862–878. [PubMed: 14516235]
4. Apodaca TR, Longabaugh R. Mechanisms of change in motivational interviewing: A review and preliminary evaluation of the evidence. Addiction. 2009; 104:705–715. [PubMed: 19413785]
5. Arkowitz, H.; Westra, HA.; Miller, WR.; Rollnick, S. Motivational interviewing in the treatment of psychological problems. Guilford Press; New York: 2007.
6. Aviram, A.; Westra, HA.; Kertes, A. The impact of motivational interviewing on resistance in cognitive behavioral therapy: A process analysis. Paper presented at the Annual meeting of the Society for Psychotherapy Research; Asilomar, CA. June, 2010; 2010.
7. Austin, J. How to do things with words. Harvard University Press; Cambridge, MA: 1962.
8. Bandura A. Self-efficacy: toward a unifying theory of behavioral change. Psychological Review. 1977; 84:191–215. [PubMed: 847061]
9. Bem, DJ. Self-perception theory. In: Berkowitz, L., editor. Advances in experimental social psychology. Vol. Vol. 6. Academic Press; New York: 1972. p. 1-62.
10. Bond FW, Bunce D. Mediators of change in emotion-focused and problem-focused worksite stress management interventions. Journal of Occupational Health Psychology. 2000; 5:156–163. [PubMed: 10658893]

NIH-PA Author Manuscript NIH-PA Author Manuscript NIH-PA Author Manuscript

11. Bond, FW.; Hayes, SC.; Baer, RA.; Carpenter, KM.; Orcutt, HK.; Waltz, T.; Zettle, RD. Preliminary psychometric properties of the Acceptance and Action Questionnaire – II: A revised measure of psychological flexibility and acceptance. (Submitted)
12. Britt E, Blampied N, Hudson S. Motivational interviewing: A review. Australian Psychologist. 2003; 38:193–201.
13. Brown, JM. Self-regulation and the addictive behaviors. In: Miller, WR.; Heather, N., editors. Treating addictive behaviors. 2nd ed. Plenum Press; New York: 1998. p. 61-73.
14. Catley D, Harris KJ, Mayo MS, Hall S, Okuyemi KS, Boardman T, Ahluwalia JS. Adherence to principles of motivational interviewing and client within-session behavior. Behavioural and Cognitive Psychotherapy. 2006; 34:1–14.
15. Christopher PJ, Dougher MJ. A behavior analytic account of motivational interviewing. The Behavior Analyst. 2009; 32:149–161.
16. Dahl, J.; Wilson, KG.; Luciano, C.; Hayes, SC. Acceptance and Commitment Therapy for Chronic Pain. Context Press; Reno, NV: 2005.
17. Gaudiano BA, Herbert JD. Acute treatment of inpatients with psychotic symptoms using Acceptance and Commitment Therapy: Pilot results. Behaviour Research & Therapy. 2006; 44:415–437. [PubMed: 15893293]
18. Gaume J, Gmel G, Daeppen J. Brief alcohol interventions: Do counsellors' and patients' communication characteristics predict change? Alcohol & Alcoholism. 2008; 43:52–69.
19. Gaume J, Gmel G, Faouzi M, Daeppen J. Counsellor behaviors and patient language during motivational interventions: A sequential analysis of speech. Addiction. 2008; 103:1793–1800. [PubMed: 19032529]
20. Gifford EV, Kohlenberg BS, Hayes SC, Antonuccio DO, Piasecki MM, Rasmussen-Hall ML, Palm KM. Applying a functional acceptance based model to smoking cessation: An initial trial of Acceptance and Commitment Therapy. Behavior Therapy. 2004; 35:689–705.
21. Gorham M, Barnes-Holmes Y, Barnes-Holmes D, Berens N. Derived comparative and transitive relations in young children with and without autism. The Psychological Record. 2009; 59(2):221–246.
22. Gregg JA, Callaghan GM, Hayes SC, Glenn-Lawson JL. Improving diabetes self-management through acceptance, mindfulness, and values: A randomized controlled trial. Journal of Consulting and Clinical Psychology. 2007; 75:336–343. [PubMed: 17469891]
23. Hayes, SC.; Barnes-Holmes, D.; Roche, B., editors. Relational Frame Theory: A Post-Skinnerian account of human language and cognition. Plenum Press; New York: 2001.
24. Hayes SC, Luoma J, Bond F, Masuda A, Lillis J. Acceptance and Commitment Therapy: Model, processes, and outcomes. Behaviour Research and Therapy. 2006; 44:1–25. [PubMed: 16300724]
25. Hayes SC, Masuda A, Bissett R, Luoma J, Guerrero LF. DBT, FAP, and ACT: How empirically oriented are the new behavior therapy technologies? Behavior Therapy. 2004; 35:35–54.
26. Hayes SC, Strosahl KD, Wilson KG, Bissett RT, Pistorello J, Toarmino D, Polusny M,A, Dykstra TA, Batten SV, Bergan J, Stewart SH, Zvolensky MJ, Eifert GH, Bond FW, Forsyth JP, Karekla M, McCurry SM. Measuring experiential avoidance: A preliminary test of a working model. The Psychological Record. 2004; 54:553–578.
27. Hayes, SC.; Strosahl, K.; Wilson, KG. Acceptance and Commitment Therapy: An experiential approach to behavior change. Guilford Press; New York: 1999.
28. Hayes SC, Wilson KG, Gifford EV, Bissett R, Piasecki M, Batten SV, Byrd M, Gregg J. A Preliminary Trial of Twelve-Step Facilitation and Acceptance and Commitment Therapy With Polysubstance-Abusing Methadone-Maintained Opiate Addicts. Behavior Therapy. 2004; 35:667–688.
29. Hayes, SC.; Smith, S. Get Out of Your Mind and Into Your Life: The New Acceptance and Commitment Therapy. Oakland; New Harbinger: 2005.
30. Hettema J, Steele J, Miller WR. Motivational interviewing. Annual Review of Clinical Psychology. 2005; 1:91–111.
31. Kanfer, FH. Implications of a self-regulation model of therapy for treatment of addictive behaviors. In: Miller, WR.; Heather, N., editors. Treating addictive behaviors. Plenum Press; New York: 1986. p. 29-47.

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32. Lappalainen R, Lehtonen T, Skarp E, Taubert E, Ojanen M, Hayes SC. The impact of CBT and ACT models using psychology trainee therapists: A preliminary controlled effectiveness trial. Behavior Modification. 2007; 31:488–511. [PubMed: 17548542]
33. Lillis J, Hayes SC, Bunting K, Masuda A. Teaching acceptance and mindfulness to improve the lives of the obese: a preliminary test of a theoretical model. Annals of Behavioral Medicine. 2009; 37:58–69. [PubMed: 19252962]
34. Lipkens R, Hayes SC. Producing and recognizing analogical relations. Journal of the Experimental Analysis of Behavior. 2009; 91(1):105–126. [PubMed: 19230515]
35. Luoma, JB.; Hayes, SC.; Walser, RD. Learning ACT: An Acceptance & Commitment Therapy Skills-Training Manual for Therapists. New Harbinger; Oakland, CA: 2007.
36. McNally AM, Palfai TP, Kahler CW. Motivational interventions for heavy drinking college students: examining the role of discrepancy-related psychological processes. Psychology of Addictive Behaviors. 2005; 19(1):79–87. [PubMed: 15783281]
37. Miller WR. Motivational interviewing with problem drinkers. Behavioural Psychotherapy. 1983; 11:147–172.
38. Miller, WR.; C'de Baca, J. Quantum Change. Guilford Press; New York: 2001.
39. Miller, WR.; Brown, JM. Self-regulation as a conceptual basis for the prevention and treatment of addictive behaviors. In: Heather, N.; Miller, WR.; Greeley, J., editors. Self-control and the addictive behaviours. Maxwell MacMillan Publishing Australia; Sydney: 1991. p. 3-79.
40. Miller, WR.; Rollnick, S. Motivational interviewing: Preparing people to change. Guilford Press; New York: 1991.
41. Miller, WR.; Rollnick, S. Motivational Interviewing: Preparing people for change. Guilford Press; New York: 2002.
42. Miller WR, Rose GS. Toward a theory of motivational interviewing. American Psychologist. 2009; 64:527–537. [PubMed: 19739882]
43. Miller, WR.; Moyers, TB.; Ernst, D.; Amrhein, P. Manual for the motivational interviewing skills code (MISC) Version 2.0. Unpublished manual: University of New Mexico; 2003. Available at: http://www.motivationalinterview.org/training/MISC2.pdf
44. Moyers TB, Martin TM. Therapist influence on client language during motivational interviewing sessions. Journal of Substance Abuse Treatment. 2006; 30:245–251. [PubMed: 16616169]
45. Moyers TB, Martin TM, Christopher PJ, Houck JM, Tonnigan JS, Amrhein PC. Client language as a mediator of motivational interviewing efficacy: Where is the evidence? Alcoholism: Clinical and Experimental Research. 2007; 31:40s–47s.
46. Moyers TB, Miller WR, Hendrickson SML. How does motivational interviewing work? Therapist interpersonal skill predicts client involvement within motivational interviewing sessions. Journal of Consulting and Clinical Psychology. 2005; 73:590–598. [PubMed: 16173846]
47. O'Hora D, Peláez M, Barnes-Holmes D, Rae G, Robinson K, Chaudhary T. Temporal relations and intelligence: Correlating relational performance with performance on the WAIS-III. The Psychological Record. 2008; 58(4):569–584.
48. Ost LG. Efficacy of the third wave of behavioral therapies: a systemic review and meta-analysis. Behavioral Research and Therapy. 2008; 46:296–321.
49. Powers MB, Zum Vorde Sive Vording MB, Emmelkamp PM. Acceptance and commitment therapy: A meta-analytic review. Psychotherapy and Psychosomatics. 2009; 78:73–80. [PubMed: 19142046]
50. Prochaska JO, Velicer WF, Rossi JS, Goldstein MG, Marcus BH, Rakowski W, et al. Stages of change and decisional balance for 12 problem behaviors. Health Psychology. 1994; 13:39–46. [PubMed: 8168470]
51. Pull CB. Current empirical status of acceptance and commitment therapy. Current Opinion in Psychiatry. 2009; 22:55–60. [PubMed: 19122536]
52. Rollnick S, Miller WR. What is motivational interviewing? Behavioural and Cognitive Psychotherapy. 1995; 23:325–334.
53. Safran, JD.; Muran, JC. Negotiating the therapeutic alliance: A relational treatment guide. Guilford Press; New York: 2000.

NIH-PA Author Manuscript NIH-PA Author Manuscript NIH-PA Author Manuscript

54. Searle, JR. Speech acts. Cambridge University Press; London: 1969.
55. Tapper K, Shaw C, Ilsley J, Hill AJ, Bond FW, Moore L. Exploratory randomised controlled trial of a mindfulness-based weight loss intervention for women. Appetite. 2009; 52:396–404. [PubMed: 19101598]
56. Thrasher AD, Golin CE, Earp JL, Tien H, Porter C, Howie L. Motivational interviewing to support antiretroviral therapy adherence: The role of quality counseling. Patient Education and Counseling. 2006; 62:64–71. [PubMed: 16023824]
57. Tollison SJ, Lee CM, Neighbors C, Neil TA, Olson ND, Larimer ME. Questions and Reflections: The use of motivational interviewing microskills in a peer led brief alcohol intervention for college students. Behavior Therapy. 2008; 39:183–194. [PubMed: 18502251]
58. VandenBos, GR., editor. APA Dictionary of Psychology. American Psychological Association; Washington, DC: 2007.
59. Vilardaga R, Hayes SC. Acceptance and Commitment Therapy and the therapeutic relationship stance. European Psychotherapy. 2009; 9(1) xx-xx.
60. Villatte M, Monestès JL, McHugh L, Freixa i Baqué E, Loas G. Adopting the perspective of another in belief attribution: Contribution of relational frame theory to the understanding of impairments in schizophrenia. Journal of Behavior Therapy and Experimental Psychiatry. 2010; 41(2):125–13. [PubMed: 20034611]
61. Vitale A, Barnes-Holmes Y, Barnes-Holmes D, Campbell C. Facilitating responding in accordance with the relational frame of comparison: Systematic empirical analyses. The Psychological Record. 2008; 58(3):365–390.
62. Wagner, CC.; Sanchez, FP. The role of values in motivational interviewing. In: Miller, WR.; Rollnick, S., editors. Motivational interviewing: Preparing People for Change. 2nd ed. Guilford Press; New York: 2002. p. 284-298.
63. Wampold, B. The Great Psychotherapy Debate: Models, Methods, and Findings. Lawrence Erlbaum; New Jersey: 2001.
64. Weinstein JH, Wilson KG, Drake CE, Kellum KK. A relational frame theory contribution to social categorization. Behavior and Social Issues. 2008; 17:40–65.
65. Wicksell RK, Melin L, Lekander M, Olsson GL. Evaluating the effectiveness of exposure and acceptance strategies to improve functioning and quality of life in longstanding pediatric pain – A randomized controlled trial. Pain. (In Press).
66. Wicksell RK, Ahlqvist J, Bring A, Melin L, Olsson GL. Can exposure and acceptance strategies improve functioning and life satisfaction in people with chronic pain and whiplash-associated disorders (WAD)? A randomized controlled trial. Cognitive Behaviour Therapy. 2008; 37:1–14. [PubMed: 18365793]
67. Wilson, KG.; Murrell, AR. Values work in Acceptance and Commitment Therapy: Setting a Course for Behavioral Treatment. In: Hayes, SC.; Follette, VM.; Linehan, M., editors. Mindfulness & Acceptance: Expanding the cognitive-behavioral tradition. Guilford Press; New York: 2004. p. 120-151.
68. Wilson, KG.; Sandoz, EK. Mindfulness, values, and the therapeutic relationship in Acceptance and Commitment Therapy. In: Hick, S.; Bein, T., editors. Mindfulness and the therapeutic relationship. Guilford Press; New York: 2008.

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Table 1

Commonalities and differences between Motivational Interviewing and Acceptance & Commitment Therapy at the conceptual and clinical levels

Domain	Commonalities	Differences	
	MI & ACT	**MI**	**ACT**
Conceptual Level			
Philosophical basis	— — —	Humanism	Functional Contextualism
Theoretical basis	Theories emphasizing role of language in human behavior	Self-perception; Speech Act	Relational Frame Theory
Clinical Level			
Therapeutic relationship	Tailored; Collaborative; Empathic	Active listening; Roll with resistance	Self-disclosing; Shared suffering; Mindful
Use of language	Accepting; No explicit prescription for change	Dialogue	Metaphorical; Experiential
Focus on values	Values motivate change; Develop discrepancy	Values as behavioral ideals; Enhance reason-giving	Values as chosen life directions; Undermine reason-giving