NARRATIVE-EMOTION PROCESSING IN MOTIVATIONAL INTERVIEWING AND COGNITIVE BEHAVIORAL THERAPY FOR GENERALIZED ANXIETY DISORDER

CHRISTIANNE BRAID MACAULAY

A THESIS SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

GRADUATE PROGRAM IN CLINICAL PSYCHOLOGY
YORK UNIVERSITY
TORONTO, ONTARIO

AUGUST 2014

Abstract

According to narrative- and emotion-based approaches to psychotherapy, individuals seek therapy when problematic self-narratives no longer align with lived experience and fail to create a basis for flexible meaning-making. Constructing adaptive narratives in therapy involves processing and symbolizing (i.e., storying) emotional experience (Angus & Greenberg, 2011). The Narrative-Emotion Process Coding System (NEPCS; Boritz et al., 2012) is a standardized tool for coding in-session client behaviors that indicate 10 underlying narrative-emotion processes. Problem markers include Same Old Story, Empty Story, Unstoried Emotion, and Superficial Story. Transition markers include Reflexive Story, Inchoate Story, Experiential Story, and Competing Plotlines. Change markers include Unexpected Outcome and Discovery Story. The NEPCS was applied to two early, two middle, and two late-stage videotaped therapy sessions of three recovered and three unchanged clients who underwent cognitive behavioral therapy (CBT) and motivational interviewing (MI) for Generalized Anxiety Disorder (GAD) (Westra et al., 2014). Multilevel modeling analyses demonstrated a significant effect of Outcome for Reflexive Story ($p < .001$), Competing Plotlines ($p = .049$), Unexpected Outcome ($p < .001$), and the Problem ($p = .01$) and Transition ($p < .001$) markers subgroups. There was a significant Outcome x Stage effect for Discovery Story ($p = .005$) and for the Change markers subgroup ($p = .043$). Findings are discussed in the context of ambivalence about worry and emotion avoidance as key features of GAD, MI's focus on resolving client ambivalence, and in terms of their implications for ongoing NEPCS validation and refinement. Limitations and future research directions, including several avenues for further elucidation of mechanisms of change in MI for GAD, are also discussed.

Table of Contents

List of Tables

Introduction

Overview

Psychotherapy is a unique interpersonal domain in which a client attempts to understand and change dominant thought, emotional, behavioral, and relational patterns by disclosing and examining aspects of his/her experience with a therapist. This disclosure and exploration occurs through the medium of emotionally-salient personal narratives. The term 'narrative-emotion process' refers to the ways in which the verbal content of a narrative (i.e, what is being talked about), structural features of a narrative (e.g., plot coherence), and emotion processing (i.e., emotional arousal, experiencing, and expression) become integrated (Boritz, 2012). The present study examined narrative-emotion processes, and their association with outcome, in psychotherapy for generalized anxiety disorder (GAD).

This was accomplished through the application of the Narrative-Emotion Process Coding System (NEPCS; Boritz, Bryntwick, Angus, Greenberg, & Carpenter, 2012) to a sample of therapy sessions for individuals with severe GAD who participated in a randomized controlled trial of motivational interviewing (MI) integrated with cognitive behavioral therapy (CBT) (Westra, Constantino, & Antony, 2014). The NEPCS is a behavioral coding system that tracks specific, observable linguistic and paralinguistic indicators of distinct narrative-emotion processes. It was chosen as an appropriate tool to empirically investigate this sample because it operationalizes processes that are closely related to the etiology and maintenance of GAD, including emotional and experiential avoidance through worry. Furthermore, the NEPCS includes a marker of client

ambivalence, which is thought to be a major barrier against effective GAD treatment with CBT; MI focuses on working with and resolving client ambivalence about worry.

The following literature review will explore the empirical and theoretical bases for the narrative-emotion processing patterns that we expected to see in recovered and unchanged clients in this sample. It begins with a brief review of narrative and emotion processing in psychotherapy and the development of the NEPCS, followed by a description of the 10 NEPCS markers and a summary of findings from previous NEPCS studies. Next, I describe GAD and discuss the major theoretical models of worry and GAD, highlighting the possible contribution of narrative-emotion processes to GAD etiology. Turning to GAD treatment, I describe CBT, resistance to treatment, and MI, before reviewing literature on ambivalence as a narrative-emotion process in general, and in the context of GAD in particular. Finally, I summarize the rationale and purpose for applying the NEPCS to this sample and present this study's exploratory research questions.

Narrative and Emotion Processing in Psychotherapy

We know ourselves through the stories we construct about our experience; stories we share with others and stories we reflect on privately (Bruner, 1986; McLean, Pasupathi, & Pals, 2007). Self-narrative is one of the defining features of human experience; the product of our capacities for language and self-awareness, and of our need for social connection. Working from a neurobiological perspective, Damasio (1999) suggests that we experience the self, at its most basic level, through the process of becoming aware of a bodily felt sense which gives rise to a verbal or imaginal conceptual representation of experience. Like a web spun and woven over time, narrative provides

temporal continuity and meaning to a moment-by-moment stream of one felt sense after another (Damasio, 1999).

Daniel Stern (1985) outlines how our narrative sense of self and capacity for narrating experience emerge as the final stage of a rapid developmental sequence through infancy and early childhood. According to Stern, a sense of self first begins with the "emerging self," a nascent organization of the world as apprehended through sensation. Then comes the "core self" which features a sense of agency (will), affect, and temporal continuity (memory). Next, the "intersubjective self" emerges as a sense of being in relationship. Through mirroring interactions with a responsive, attuned caregiver, mental representations of affective experience—the basic building blocks of emotion regulation—develop. The "verbal self" emerges soon after the intersubjective self. New language capacity at this stage permits an expansion of the self, by providing a new way to share inner experiences with others and mutually create meaning. At the same time, however, language fragments the self because the immediate wholeness of lived experience is imperfectly coded in representational form. Words, according to Stern, "isolate experience from the amodal flux in which it was originally experienced. Language can thus fracture the amodal global experience. A discontinuity is introduced" (1985, p. 176). This can be especially true for emotional experience. The "narrative self" is a final developmental achievement. Although the capacity for narrative organization of episodic experience develops in the preschool years (Nelson & Fivush, 2004), a sense of narrative identity—featuring a coherent sense of self as an agent with a meaningful past, present, and future—only emerges in adolescence (Chen, McAnally, & Reese, 2013; Habermas & Bluck, 2000; Habermas & de Silveira, 2008).

Narrative, therefore, is more than just words. Rather, the language of narrative is intimately related to (but incapable of fully capturing) sensation, emotion, and interpersonal processes. Dialectical-constructivism (Greenberg & Pascual-Leone, 1995, 2001) proposes that a person generates meaning through the organization of emotional experience. This unfolds through an ongoing dialectic between automatic, immediate sensorimotor and affective experience, and the cognitive representation or symbolization of only an incomplete portion of that experience in consciousness. According to narrative-informed and experiential-humanistic approaches to psychotherapy, that incomplete symbolization of felt experience in consciousness is problematic; clients seek therapy because of distressing discrepancies between their felt experience, their actions, and their autobiographical sense of self (Angus, 2012; Rogers, 1961). From an even broader perspective, Frank and Frank's (1991) meta-theory of psychotherapy contends that clients seek therapy because of demoralization, the result of maladaptive, pathogenic systems of meaning.

Narrative expression in therapy is the medium through which client and therapist explore, structure, interpret, and make meaning out of the client's lived experience (Bruner, 2004). A key task of therapy, across diverse treatment modalities, is to facilitate the (re)construction of client self-narratives that meaningfully capture and organize a range of diverse experiences, and promote a more coherent, adaptive view of self and others in the world. To that end, it is critical that clients integrate narration of *what happened* with emotional processing of *how it felt*, in order to articulate *what it means* (Angus, 2012; Angus & Greenberg, 2011). Client narration, however, varies in depth of emotion processing, specificity and structure of events narrated, integration of emotion

with narrative, and reflective meaning-making. Indeed, narrative disorganization is a necessary part of client change in psychotherapy (Daniel, 2009). For example, stories may conflict, have incoherent plot structure, or lack a sense of felt experience. Clients may display emotional distress without connecting it to a specific narrative context. Experiences may be narrated according to rigid, recurrent interpersonal patterns. But through a dialectical, co-constructive process client and therapist together can revise extant rigid or incoherent narratives into a more flexible self-narrative that organizes emotionally salient experiences, promotes a coherent sense of self, and enhances emotion regulation (Angus, 2012; Boritz, 2012).

Considerable research has examined separately the roles of narrative (e.g., Angus & McLeod, 2004; Gonçalves, Matos, & Santos, 2009; McAdams & Janis, 2004) and emotion processing (e.g., Missirlian, Toukmanian, Warwar, & Greenberg, 2005; Paivio & Pascual-Leone, 2010; Pos, Greenberg, & Warwar, 2009) in psychotherapy. However, fewer studies have investigated the interrelationship between narrative and emotion processes, and the importance of this relationship for therapeutic outcome (Boritz, Angus, Monette, Hollis-Walker, & Warwar, 2011; Pos, Greenberg, Goldman, & Korman, 2003). Angus and Greenberg (2011) proposed a dialectical constructivist model for working with narrative and emotion as integrated processes in psychotherapy. Based on this model, a video-based observer-rated behavioral coding system was developed to facilitate empirical investigation of narrative and emotion processes in psychotherapy.

The Narrative-Emotion Process Coding System (NEPCS)

The NEPCS (Boritz et al., 2012) is a standardized tool for coding minute-by-minute linguistic and paralinguistic behavior in videotaped psychotherapy sessions. It

consists of 10 mutually-exclusive markers that indicate an underlying narrative-emotion process. Each marker differs in the degree to which narrative content, narrative structure, and emotion processing (i.e., expression or indicators of arousal) are integrated and coherent. The 10 empirically-derived markers have been classified into three subgroups (Problem, Transition, and Change markers). The sub-grouping was derived from Angus and Greenberg's (2011) differentiation, based on clinical observation, of unproductive (i.e., "Problem") vs. productive (i.e., "Change") processes according to the presence or absence of markers of under-regulated, over-regulated, or undifferentiated emotion. Subsequent differentiation of the Transition and Change markers as distinct categories of productive process has received preliminary empirical support (Bryntwick, Angus, Paivio, Carpenter, & Macaulay, 2014).

Each marker is defined and briefly discussed below. For transcript exemplars of each marker, as well as more detailed descriptions of their linguistic and paralinguistic indicators, see the manual in Appendix A.

Problem markers. The Problem markers subgroup is characterized by indicators of under-regulated or over-regulated emotional states, overly rigid maladaptive self-narratives, and abstract or un-meaningful narrative content. Together, this group is thought to reflect processes that may be involved in the maintenance of the presenting clinical problem, and that are unproductive towards therapeutic change.

Same Old Story. Same Old Storytelling refers to over-general descriptions of interpersonal patterns, behavioral patterns, thought patterns, or emotional states, accompanied by a sense of low personal agency (i.e., stuckness, hopelessness, or resignation). The Same Old Story reflects a black-and-white, maladaptive view of oneself

and one's relationships in which problems or patterns are seen as unchangeable and/or maintained by forces outside the self.

Empty Story. Empty Storytelling refers to a highly detailed elaboration of an event, or the provision of externalized factual information, without reflexivity or analysis. The Empty Story is so-named because emotional arousal appears to be low or absent, and the significance of the event or facts relayed may remain unclear.

Unstoried Emotion. The Unstoried Emotion marker refers to the verbal or non-verbal expression of undifferentiated emotional states that are unacknowledged or disconnected from the narrative, or that are so strong as to interrupt the client's narrative. Unstoried Emotion reflects the presence of strong emotional arousal that does not get symbolized and made sense of in words.

Superficial Story. The Superficial Story marker is defined as generalized, vague, incoherent, or abstract narrative and emotional expression. A Superficial narrative may include sweeping statements or use vague, over-general referents, may be difficult to follow and scattered, may include intellectualizations, discussion of hypothetical scenarios or judgments, and is generally depersonalized or other-focused.

Transition markers. The modes of processing that characterize this subgroup are thought to catalyze the creation of new, more adaptive and flexible self-narratives. The Transition markers indicate potentially productive processes towards therapeutic change.

Reflexive Story. This marker is defined as a coherent analysis of or reflection on a pattern or autobiographical memory. It is self-focused and may contain reports of internal experience, but there is little evidence of present-centered exploration. Reflexive story types are often explanatory in nature, i.e., they provide a "why" or "how" for personally

significant events or patterns, however these explanations cannot arise from novel understanding (see Discovery Story). Reflexive Storytelling suggests self-awareness and a capacity for making (and articulating) connections between events and experiences.

Experiential Story. This marker refers to a client narrative through which the client experientially re-enters a specific autobiographical memory, and refers to associated sensory details, internal experience, or emotional reactions.

Inchoate Story. This marker suggests that the client is in the process of accessing and articulating present-moment felt experience. Inchoate storytelling involves the inward focusing of attention in order to sort through, piece together, or make sense of experience, and the search or struggle for language to symbolize that experience.

Competing Plotlines. This marker refers to the expression of competing or opposing emotional responses, lines of thinking, or behavioral tendencies pertaining to a specific event, life domain, or narrative context. One of the two alternatives may represent a breach of assumptions, beliefs, identity, or dominant behavioral patterns. The ambivalence or irruption is accompanied by a sense of conflict or incongruence (e.g., confusion, curiosity, protest, doubt, anger, or frustration).

Change markers. The NEPCS Change markers subgroup features increased narrative-emotion integration and the generation of new understanding, meaning, and action tendencies. The Change markers reflect actual adaptive change—whether concrete behavioral, or relating to conceptual understanding and meaning making. Both of the markers in this category overlap considerably with White and Epston's (1990) "Unique Outcome" story, and with markers from the more differentiated "Innovative Moments

Coding System" (IMCS; Gonçalves et al., 2009; Gonçalves, Ribeiro, Mendes, Matos, & Santos, 2011).

Unexpected Outcome. The Unexpected Outcome marker refers to reports of new, adaptive behavior, emotional responses, or thought patterns, in which the client identifies his or her own active role in the event. The Unexpected Outcome story is accompanied by expressions of surprise, excitement, pride, relief, or protest.

Discovery Story. The Discovery Story is a reflexive or interpretive exploration and analysis of a specific event, a subjective experience, and/or a more general pattern, which is accompanied by a sense of discovery, of reconceptualization, or of novel self-understanding. Whereas the Unexpected Outcome story is generally about novel adaptive responses to a concrete event, the Discovery Story pertains to novel understanding or adaptive re-conceptualization of old beliefs about the self.

No Client Marker. The NEPCS is applied to one-minute time segments, with one marker coded for each segment. When the therapist has more than 50% of the "airtime" in a segment, it is coded No Client Marker (NCM).

NEPCS Empirical Findings

Two of the three studies presented below (Boritz et al., 2013; Carpenter, Angus, Paivio, & Bryntwick, 2014) were conducted using an earlier version of the NEPCS that included fewer markers than those described in the previous section. Notably, the Experiential Story had yet to be identified, and the Superficial and Reflexive story type markers were subsumed under a single "Abstract" story type. Furthermore, the earlier version of the NEPCS conceptualized two subgroups instead of three: Problem markers included Same Old Story, Unstoried Emotion, Empty Story, and Abstract Story; Change

markers included Inchoate Story, Competing Plotlines, Unexpected Outcome, and Discovery Stories.

Treatment of depression. The NEPCS was first applied to samples of clients (*N* = 12; 36 therapy sessions) undergoing emotion-focused, client-centered, or cognitive therapy for depression (Boritz et al., 2013). Across treatment conditions, there were significant outcome effects for the marker subgroups, and for two individual markers. There was a significantly higher proportion of Change markers for recovered vs. unchanged clients over the course of therapy. The proportion of Problem markers was higher for unchanged vs. recovered clients overall, and at the middle stage of therapy. Proportions of both Inchoate Story and Discovery Story were significantly higher among recovered vs. unchanged clients across all three treatment types. Inchoate storytelling indicates accessing, exploring, and symbolizing in-the-moment internal experience. The Discovery Story indicates a process of generating novel understanding and new meaning from the reflexive examination of one's experience. The higher occurrence of these two markers among recovered vs. unchanged clients was interpreted as evidence that the capacity and/or willingness to explore felt experience and to generate meaning from the reflexive examination of that experience is a recovery-facilitating factor in the treatment of depression (Boritz et al., 2013).

The findings also included significant outcome x stage and outcome x stage x treatment interactions for two individuals markers: Abstract Story; and Competing Plotlines. Higher proportions of Abstract Story were observed for unchanged vs. recovered clients at the middle stage of therapy. This tendency for clients to remain at a superficial or detached level of processing at the working (i.e., middle) phase of therapy

was interpreted as indicating a limited ability to engage in the meaningful examination of personal experience, which is a central component of effective therapy (Boritz et al., 2013).

In contrast, recovered vs. unchanged clients had higher proportions of the Competing Plotlines marker at the early and middle stages of client-centered therapy, and at the middle stage of emotion-focused therapy. For clients receiving cognitive therapy, there were no significant differences in the proportion of the Competing Plotlines marker between outcome groups at any stage of therapy. These findings were explained as a possible consequence of the experiential focus in client-centered and emotion-focused therapy, in contrast with cognitive therapy. The Competing Plotlines marker indicates client ambivalence between two alternative action tendencies, feelings, or thought patterns (i.e., beliefs, explanations) regarding a specific relational context or experience. Accessing direct experience and emotion processing may help to destabilize dominant problematic narrative-emotion states, creating room for the emergence of alternative processes—specifically, more emotionally differentiated and integrated narration of experience and consequent meaning-making. Results indicated this destabilization occurred with the most frequency for recovered vs. unchanged clients at the early and working phase of therapy (Boritz et al., 2013). This is consistent with conceptualization of the Competing Plotlines marker as an indicator that the client is in the process of experiencing and feeling tension between two alternatives—a necessary first step in the process of moving towards novel understanding and new tendencies towards adaptive action (Angus & Greenberg, 2011).

Treatment of complex trauma. Carpenter et al. (2014) then applied the NEPCS to a pilot sample of clients who underwent emotion-focused therapy for complex trauma (N = 4; 24 therapy sessions). Using eta-squared analyses, they found that across all stages of therapy, unchanged clients evinced higher proportions of the Problem markers subgroup, and there was a large effect size for this difference. There also was a large effect size for the Unstoried Emotion marker, which occurred more frequently in unchanged vs. recovered clients. As Carpenter et al. (2014) noted, proportions of Unstoried Emotion were higher for trauma clients relative to the earlier sample of depressed clients (Boritz, 2012), which is consistent with other studies indicating emotion dysregulation and alexythymia in individuals with complex trauma (e.g., Aust, Härtwig, Heuser, & Bajbouj, 2013; Joukamaa et al., 2008; Paivio & McCulloch, 2004). Carpenter et al. also reported several outcome x stage interaction effects. Recovered vs. unchanged clients had higher proportions of the Competing Plotlines marker at the middle stage of therapy, whereas the opposite pattern occurred at late stage therapy: unchanged vs. recovered clients had a higher proportions of Competing Plotlines. This was consistent with Boritz et al.'s findings that higher proportions of Competing Plotlines in the middle stage of therapy appear to be important for outcome. In addition, Carpenter reported outcome x stage interactions for the Discovery Story and Unexpected Outcome markers, with recovered vs. unchanged clients evincing higher proportions of both markers at the late stage of therapy.

Bryntwick et al. (2014) then extended Carpenter's sample and applied the updated version of the NEPCS (i.e., differentiating Abstract Story into the Superficial and Reflexive Story markers, and differentiating three marker subgroups: Problem,

Transition, and Change). The sample was extended to 12 clients undergoing emotion-focused therapy for trauma (including Carpenter's original sample of 4), which permitted hierarchical linear modeling to better evaluate some of the effects observed in the pilot sample. Unchanged clients had a significantly higher proportion of Problem markers over the course of therapy. In addition, recovered vs. unchanged clients had a higher proportion of Unexpected Outcome and Discovery Story markers in late stage therapy, suggesting that recovered clients began to experience and report changes in daily life, and begin to see their world and themselves differently, towards the end of therapy.

Perhaps of most interest, Bryntwick et al. (2014) found preliminary empirical support for differentiating the Transition markers subgroup. Recovered clients had a higher proportion of Transition markers over the course of therapy. Furthermore, recovered vs. unchanged clients had a higher proportion of Competing Plotlines at middle stage therapy, while unchanged vs. recovered clients had a higher proportion at late stage therapy. This suggests that Competing Plotlines—a marker of ambivalence about the status quo and a destabilized self-narrative—is a transitional, as opposed to a change, process. In light of the outcome x stage interactions observed for the Discovery Story and Unexpected Outcome markers, Brytnwick et al. (2014) suggested that the Competing Plotlines pattern at late stage therapy may indicate that unchanged clients in this time-limited clinical trial could have benefitted from a longer course of therapy.

Limitations of previous studies. Together, the results of these studies suggest that: the NEPCS can be applied to multiple treatment modalities and clinical populations; NEPCS Problem, Transition, and Change marker patterns are related to outcome over the course of therapy; and some individual NEPCS marker patterns may differentiate clinical

populations in ways that are consistent with the theoretical and empirical bases of their respective diagnoses. These initial findings, however, are limited by small sample sizes, and may not generalize to other clinical populations and treatment modalities. Thus, a critical next step for NEPCS validation is its application to other clinical populations and treatment modalities, to establish whether the coding system, in its current iteration, meaningfully and reliably captures some range of narrative-emotion processing and change common to various psychotherapies. Accordingly, the present study applied the NEPCS to a sample of individuals undergoing MI integrated with CBT for GAD.

Generalized Anxiety Disorder

Generalized Anxiety Disorder (GAD) is characterized by excessive anxiety, and worry about a number of events, activities, or life domains that is difficult to control, causes distress or impairment and is accompanied by (at least three of): restlessness or feeling on edge; fatigue; difficulty concentrating; irritability; muscle tension; and sleep disturbance (DSM-5; American Psychiatric Association, 2013). The lifetime and one-year prevalence rates for GAD have been estimated at 5.7% and 3%, respectively, with approximately one-third of cases in any year considered "severe" (Kessler et al., 2005a, 2005b). Rates are higher in primary care samples (7.6%; Kroenke, Spitzer, Williams, Monahan, & Lowe, 2007), and it has been estimated that 40-80% of individuals with GAD meet criteria for another anxiety or mood disorder or chronic physical illness (Roy-Byrne et al., 2008). GAD is highly chronic, spontaneous remission rates are low, and severity tends to increase over time (Turk & Mennin, 2011; Yonkers, Bruce, Dyck, & Keller, 2003). Consequently, GAD is associated with considerable impairment of quality

of life, function, and well-being, increased primary healthcare utilization, and economic burden (Hoffman, Dukes, & Wittchen, 2008; Revicki et al., 2012).

Worry. Worry is the defining feature of GAD. The word "worry" can be traced to a verb, meaning—at various points in its etymological history—to strangulate, to constrict, to harass by tearing, snapping, or biting at the throat, and (most recently) to repeatedly touch or disturb something (Mennin, Heimburg, & Turk, 2004). Today, the first two definitions provided by the Oxford English Dictionary are "to feel or cause to feel anxious or troubled about actual or potential problems," and "to discover or solve something by persistent thought." Together, they suggest an adaptive, functional purpose of worry: problem solving. As a psychological phenomenon, worry received very little attention until the 1980s. It has since been defined more precisely as a "predominantly verbal-linguistic attempt to avoid future aversive events." (Borkovec, 1994 p. 7).

Worry—talking to ourselves about bad things that might happen—is a universal human experience. Indeed, research suggests that worry in GAD, vs. non-pathological worry, is a question of dimensional severity rather than categorical (taxonic) difference (Olatunji, Broman-Fulks, Bergman, Green, & Zlomke, 2010a). In other words, individuals with GAD worry about the same types of things as everyone else; they just do it more often, more intensely, and with greater consequences for well-being and daily function. This suggests that worry has an important functional purpose, i.e. that it is somehow reinforcing for individuals with GAD. Several theoretical models of GAD have been proposed, each including—but varying in the extent to which they emphasize—the view that worry is a cognitive means of avoiding internal affective experience (reviewed in Behar, DiMarco, Hekler, Mohlman, & Staples, 2009). Each of these models will be

briefly addressed where appropriate in the following discussion of narrative and emotion processes in GAD and its treatment.

Narrative and emotion in worry and GAD. Borkovec's Avoidance Model of Worry and GAD (Borkovec & Roemer, 1995; Borkovec, Alcaine, & Behar, 2004) draws on basic behavioral and cognitive science, including Mowrer's (1947) two-stage learning theory of fear, dual-coding theory (Paivio & Marschark, 1991), and empirical studies on the nature of worry. Compared to regular thought, worry contains more verbal content but less imagery, and the latter is less vivid and more abstract when it does occur (Borkovec & Inz, 1990; Freeston, Dugas, & Ladouceur, 1996; Stöber et al., 2000). Borkovec et al. (2004) review psychophysiological data indicating that worry suppresses the physiological response to fearful images and events, i.e., the sympathetic nervous system's fight or flight response to threat. GAD, in contrast with other anxiety disorders, is associated with suppressed sympathetic activity and overall autonomic rigidity; the majority of non-worry GAD symptoms (e.g., muscle tension, sleep difficulties) are mediated by the central nervous system.

The Avoidance Model proposes that individuals with GAD experience elevated anxiety (i.e., anxious arousal and apprehension), and that worry serves as a maladaptive means of regulating that anxiety. Worry is abstract, verbal-linguistic thought activity that appears to dull or obscure the bodily-felt experience of fear. By engaging in worry, an individual avoids experiencing aversive mental imagery associated with fear-inducing experiences and related somatic and emotional (anxious) arousal. Worry is negatively reinforced because the aversive, fearful imagery temporarily abates, and positively reinforced through the individual's belief that worry helps to motivate, solve problems, or

avoid problems. A feedback cycle develops: worry inhibits processing of emotional experiences, therefore the affective state persists (Foa & Kozak, 1986) and the individual engages in more worry to attenuate persistent arousal and imagery (Borkovec et al., 2004).

Building on the Avoidance Model, two complementary models elaborate what individuals with GAD may be avoiding through worry, why they may be predisposed to do so, and how it is avoided. First, the Emotion Dysregulation Model of GAD (Mennin, Heimburg, Turk, & Fresco, 2005) outlines how an individual may be predisposed to avoid experiencing specific autobiographical memory-related imagery and emotional arousal through excessive worry. Mennin et al. (2005) suggest that individuals with GAD may experience emotion more intensely (i.e., emotional hyperarousal), and at the same time have trouble identifying, understanding, and regulating it. Individuals with GAD become overwhelmed by the experience of strong emotion and as a result are hypervigilant for threatening information such as images and memories of emotion-laden past experiences and events. The model proposes that, to reduce this threat, individuals with GAD employ ineffective emotion-regulating strategies, such as suppression and worry, that were originally adaptive or effective but have become maladaptive. Because these regulating attempts are largely ineffective, negative emotions can intensify, creating a bidirectional cycle between negative affect and worry (Mennin et al., 2005; Mennin, Holaway, Fresco, Moore, & Heimburg, 2007; Olatunji, Moretz, & Zlomke, 2010b).

The Acceptance-Based Model of GAD (Roemer & Orsillo, 2002; Roemer, Salters, Raffa, & Orsillo, 2005) similarly emphasizes maladaptive responsivity to emotional experience. According to this model, individuals with GAD tend to negatively

evaluate and fear internal experiences (thoughts, memories, feelings, and bodily sensations). Furthermore, they experience fusion with internal experiences, i.e., they believe that negative reactions to internal experiences are permanent aspects of the self. As a consequence, individuals have difficulty monitoring, understanding, and accepting emotions. They are motivated to reduce internal distress by avoiding threatening internal experiences, both cognitively through worry, and through behavioral restriction (Roemer et al., 2005). This reduced engagement in valued or meaningful activities is believed to perpetuate a cycle in two ways: it increases long-term emotional distress and negative internal experiences; and it reduces present-moment awareness, which prevents disconfirmation of the individuals' beliefs about and fusion with negative internal experiences (Behar et al., 2009).

Autobiographical memory specificity. An extensive literature has demonstrated a relationship between over-general autobiographical memory (ABM) and psychopathology, particularly depression (see Williams et al., 2007). Specific ABM recall or disclosure (e.g., through narrative in therapy) evokes vivid imagery and the original emotional content associated with the event. In contrast, ABM over-generality prevents accessing vivid imagery and intense emotions that are associated with specific memories (Borkovec, Ray, & Stöber, 1998; Raes, Hermans, de Decker, Eelen, & Williams, 2003). Williams et al.'s (2007) CaRFAX model proposes that reduced specificity is a cognitive strategy for avoiding the emotion associated with negative ABMs. Over-general memory as an avoidance behavior may only be activated in threatening contexts (Debeer, Raes, Williams, & Hermans, 2011). Individuals with GAD tend to misinterpret and elaborate information as threatening (Coles & Heimburg, 2002),

so it is possible that they may tend to rely on over-general memory as an avoidance strategy. To date, few empirical research studies have explored this possibility, despite obvious parallels with Borkovec's Avoidance Model of worry.

The single (published) study on ABM specificity and GAD found that, compared to healthy controls, individuals with GAD tended to recall more ABMs that fell under a "nervous" mood category. Furthermore, judges rated 54% of these "nervous" ABMS as over-general, compared to only 14% of healthy controls' "nervous" ABMs (Burke & Mathews, 1992). One other study found that meeting criteria for major depressive disorder predicted ABM over-generality, but meeting criteria for an anxiety disorder did not (Wessel, Meeren, Peeters, Arntz, & Merckelbach, 2001). Wessel et al.'s findings are limited, however, by the fact that less than 10% of participants in the anxiety disorders category of the study sample had GAD. As noted previously, GAD differs from other anxiety disorders on a number of factors that may be important for ABM specificity, such as the prominence of worry, patterns of autonomic rigidity vs. hyperactivity (Borkovec et al., 2004), and patterns of threat-related memory bias (Coles & Heimburg, 2002).

It is important to consider ABM specificity in GAD because theoretical models of worry propose that worry is a strategy for avoiding distressing mental imagery and associated emotional arousal. Narration of a specific ABM containing vivid imagery provides access to the emotional experience associated with the remembered event. It is possible that specific ABMs evoke the *imagery*, *arousal*, and *internal experience* on which models of worry and GAD focus. In other words, it may be that worry helps individuals avoid emotion by helping them to over-generalize, thereby avoiding specific ABM recall of events that tend to evoke strong emotion. ABM specificity is a key

dimension of narrative and, more importantly, a key element of how narrative and emotion processing are integrated.

Rationale for examining narrative-emotion processes in GAD. Because emotion dysregulation and experiential avoidance are putative underlying factors in GAD, examining narrative-emotion processes provides a promising way to operationalize the in-session behavior of individuals undergoing psychotherapy for GAD. NEPCS markers describe the ways in which (and the extent to which) a client is able to: access and disclose emotionally salient, specific ABMs; actively symbolize and reflect on emotional experience; access adaptive action tendencies; and make meaning of experience. Individual NEPCS Problem markers describe specific processes that might change over the course of effective therapy for an individual with GAD (i.e., an individual who regulates arousal through abstract verbal thought, or worry). Empty Story and Superficial Story share characteristics including a lack of expressed present-centered emotion, an externalized focus on others and events, over-generality, and a conceptual or distanced tone. In other words, these story types operationalize emotional avoidance and worry (emotion over-regulation), and thus may be more common early in treatment or in poor-outcome cases. In contrast, a client who more directly processes mental imagery and related emotional arousal may be more likely to evince the Reflexive Story, Experiential Story or Inchoate Story markers, which indicate respectively a capacity for heightened self-awareness, accessing specific ABMs, and symbolization of felt experience, each of which may promote good outcome.

Treatment of GAD

CBT. As with many other anxiety disorders, CBT is considered the gold-standard empirically-supported treatment for GAD (Fisher, 2006). Manualized CBT for GAD generally involves some combination of: psychoeducation about anxiety and worry; cognitive restructuring, including re-evaluating the probability of feared events occurring and their potential consequences; self-monitoring; relaxation training such as progressive muscle relaxation and breathing exercises; behavioral experiments for testing worries and feared outcomes; situational and imaginal exposure to worry cues; and worry prevention (i.e., structuring and limiting the time in which worry is permitted). Several meta-analyses have examined the efficacy of CBT for GAD (Borkovec & Ruscio, 2001; Covin, Ouimet, Seeds, & Dozois, 2008; Gould, Otto, Pollack, & Yap, 1997; Gould, Safren, Washington, & Otto, 2004; Hanrahan, Field, Jones, & Davey, 2013; Westen & Morrison, 2001), and largely indicate that CBT is effective for reducing GAD symptoms. On the other hand, Fisher (2006) reports that recovery rates range only from 26% to 50%, and GAD is known to be less responsive to treatment than are other anxiety disorders (Olatunji, Cisler, & Deacon, 2010c). In other words, CBT has demonstrated efficacy, but it still fails to help at least half of the individuals who seek treatment for GAD.

Two other models of GAD may help to explain why CBT fails to reduce symptoms for many individuals with GAD, and will contextualize the psychotherapy trial from which the present study's sample was drawn and the putative therapeutic processes under investigation. The Intolerance of Uncertainty Model (Dugas & Robichaud, 2007) recognizes worry's cognitive avoidance function, and has three additional components: intolerance of uncertainty, i.e., a dispositional aversion to uncertain or ambiguous

situations; "negative problem orientation," i.e., a tendency to interpret problems as threatening, lack problem-solving confidence, and feel pessimistic about problem-solving outcomes; and positive beliefs about worry. Intolerance of uncertainty and negative problem orientation contribute to worry, which is continuously reinforced because of positive beliefs about worry. The most common beliefs are that: (1) worry helps find solutions to problems; (2) worry increases motivation to get things done; (3) worrying about bad events decreases one's reaction to them, should they occur; (4) worry superstitiously helps prevent bad things from happening; and (5) worry indicates that one is a caring, responsible person (Freeston, Rheaume, Letarte, Dugas, & Ladouceur, 1994). Similarly, Wells' Metacognitive Model (1995, 2004) proposes that individuals' positive beliefs about worry lead them to use it as a strategy for coping with anxiety-provoking situations. They then begin to "worry about worrying" due to simultaneously-held negative beliefs about worry (e.g., it is dangerous or uncontrollable).

To summarize, worry in GAD is thought to be continuously negatively reinforced, by the belief that it helps to prevent feared outcomes, as well as by the blunting of aversive anxious arousal and feared images, including ABM-related imagery. Positive reinforcement of worry may also occur through the belief that it helps individuals attain desired outcomes, e.g., as a motivator to get things done, or as evidence that one is a caring and conscientious person. Because the vast majority of problems that people with GAD worry about never occur, there is little opportunity for extinction of the associations between worry and feelings of reduced stress, and between worry and perceived control over future problems. At the same time, individuals with GAD experience worry as distressing. In other words, many individuals with GAD have *ambivalent* beliefs about

and attitudes towards worry (Borkovec & Roemer, 1995; Freeston et al., 1994; Westra, 2004).

Ambivalence and resistance in therapy for GAD. Ambivalent attitudes about worry are believed to manifest in therapy as resistance to change (e.g., through homework noncompliance, disagreement, or other oppositional behaviors; Westra & Dozois, 2006). Numerous studies indicate that resistance matters for outcome. One previous randomized controlled trial of CBT for GAD found that client motivation was the only non-clinical variable to predict outcome (Dugas et al., 2003). In another study, observer-rated resistance (i.e., opposition to the therapy or therapist) in the first session of CBT predicted homework noncompliance and negative therapeutic outcome in CBT (Aviram & Westra, 2011). Early ambivalence (as measured by in-session client motivational language) was highly predictive of outcomes in CBT for GAD (Lombardi, Button, & Westra, 2014). Drop-out rates for clients receiving CBT for GAD have been estimated at 16% (Covin et al., 2008). Resistance is thought to predict premature termination and has been consistently correlated with poor outcome (Beutler, Moleiro, & Talebi, 2002). Converging evidence comes from outside the highly controlled confines of a clinical trial, as well. Szkodny, Newman, and Goldfried (2014) surveyed community-based clinicians regarding their experience treating GAD. Over 50% of clinicians identified lack of motivation, and 30-50% endorsed various positive beliefs about worry, as major barriers to treatment progress.

As a therapeutic approach, CBT may be a particularly potent breeding ground for resistance in clients with GAD. CBT is highly directive and requires the client to actively engage in discrete, concrete tasks and exercises, many of which have a clear orientation

towards altering one's thinking, while other tasks require active behavioral change (Westra, 2004). Change and efficient movement towards change in psychotherapy are unquestionably good—unless the client is ambivalent. The ambivalent GAD client likely experiences worry as both friend and foe, and may feel deeply threatened by the possibility of changing his/her worry behavior, even as he or she seeks therapy to that end. According to Miller and Rollnick (2002), when an ambivalent individual receives any extrinsic pressure to move in one direction of his/her ambivalence (e.g., towards relinquishing worry), (s)he has no choice but to lean the other way. That is simply the nature of ambivalence. Thus, what is often labeled as resistance by therapists can be alternatively understood as the interpersonal enactment of the client's ambivalence.

The theoretical models of GAD summarized above provide more concrete indications that worry is often a highly reinforced avoidance behavior and is, as such, resistant to change. The etiological roots of that avoidance behavior may include dispositional traits such as intolerance of uncertainty, emotional hyperarousal and dysregulation, and threat-related information processing biases. Furthermore, individuals with GAD consciously endorse many positive beliefs about worry, including beliefs that may be close to personal identity and values, such as the belief that one is conscientious, accomplished, and cares about others. The purpose of the psychotherapy trial from which the present study's sample was drawn was to test MI when integrated with CBT, for targeting client ambivalence about worry and resistance to change.

MI. MI is a client-centered, directive technique for exploring ambivalence about change and enhancing intrinsic motivation to change (Miller & Rollnick, 2002; Westra, 2012). MI was originally developed for treating substance abuse and other problematic

approach-avoidance health behaviors (see Hettema, Steele, & Miller, 2005). It has been increasingly applied—with success—in the treatment of comorbid psychosis and substance use, eating disorders, depression, and anxiety disorders (see Westra, Aviram, & Doell, 2011).

MI is a way of mobilizing the client's own, intrinsic motivation for movement towards the most adaptive direction of change for him or her. This is accomplished through four principles, elaborated in Miller and Rollnick (2002) and generalized to the treatment of anxiety in Westra (2012). First, MI therapists express empathy through skillful listening, seeking to understand and accept the client's perspective, and continually reflecting that understanding back to the client. Second, MI therapists develop discrepancy between the status quo ("problem") behavior, and the client's values and goals. This discrepancy is a source of powerful intrinsic motivation to change. Third, MI therapists "roll with resistance" by treating it as valuable information to be understood, validated, and accepted. Siding with and helping the client to elaborate the part of himself/herself that resists change may help liberate the client to eventually elaborate the part of himself/herself that wants to move towards change. Fourth, MI therapists enhance and support client self-efficacy, by helping clients to identify their own resources (creativity, knowledge) for solving problems (Westra, 2012), which helps to strengthen the client's belief that change is achievable.

As Westra (2012) argues, MI should neither be reduced to nor implemented as a set of techniques. Rather, true MI is delivered from a genuine way of being with the client, called the "MI spirit," which makes the principles of MI more than the sum of their parts. Evidence suggests that MI is more effective when delivered without a manual

(Hettema, Steele, & Miller, 2005), which Westra (2012) attributes to a greater freedom to operate from the "MI spirit" as a guide for therapeutic intervention. The MI spirit is essentially a client-centered attitude defined by a view of the client as a resourceful expert, possessing intrinsic motivation that can be identified and mobilized with the therapists' guidance as an expert on the change process (including the nature of ambivalence). The therapist creates a safe collaborative space for shared exploration and discovery through genuine acceptance of the client; the therapeutic relationship takes precedence over the application of any MI "techniques" (Westra, 2012).

When used as an adjunctive treatment prior to CBT for GAD, MI appears to enhance treatment outcome compared to CBT alone, particularly for individuals with baseline high-severity worry (Westra, Arkowitz, & Dozois, 2009). The mechanisms of effective treatment for GAD are not yet fully understood. Miller (1983) theorized that MI works through a combination of technical processes (e.g., increasing client 'change talk' and decreasing 'sustain talk' in favor of the status quo) and relational processes (e.g., empathy, positive regard). Evidence primarily drawn from addiction treatment studies suggests that relational factors predict change talk, which in turn predicts behavioral change (reviewed in Miller & Rose, 2009). Aviram and Westra (2011) found that adjunctive MI for GAD was associated with lower observer-rated in-session resistance compared to CBT alone, and resistance directly mediated associations between outcome and treatment group. Their results support the hypothesis that resolving client ambivalence early in treatment is a key mechanism in the treatment of GAD (Engle & Arkowitz, 2006). The turn-by-turn micro-processes contributing to ambivalence resolution, however, remain unclear.

Ambivalence as a narrative-emotion process. Ambivalence—feeling two ways about something or someone—is a common human experience. Colloquial expressions of ambivalence pepper our language, such as "on the one hand/on the other hand," "sitting on the fence," having a "tug of war," "running hot and cold," having "mixed feelings," feeling "torn," "waffling," and being "of two minds." Many of us often speak of having multiple parts of the self, a demarcation made clear only because those parts want to take different courses of action. These narrative expressions of ambivalence have inherent emotional potency: tension, confusion, and possibly protest, doubt, or frustration. Ambivalence is also central to how we experience psychological disorder and the process of change. Feeling two ways about oneself, one's behavior, or one's relationships (whether those ways are implicit or explicit) inheres in experiencing something as problematic (distressing, impairing), i.e., in experiencing things as different from how one wants them to be.

The MI perspective on ambivalence focuses on changing a target (problematic or symptomatic) behavior. Miller and Rollnick (2002) note that ambivalence about change is especially salient to psychological problems that involve approach-avoidance conflicts, the most overt of which are addictive behaviors including substance abuse, eating disorders, and problematic gambling. In each case, individuals simultaneously want to change and do not want to change; they are genuinely attracted to the problem behavior, even though they recognize its costs, risks, and harm. Worry similarly falls under this "double approach-avoidance" type of conflict, in which both alternatives—maintaining the worry status quo, vs. relinquishing worry—have perceived costs and benefits. Double approach-avoidance conflicts are particularly paralyzing and ambivalence-inducing, as a

movement in either direction entails movement towards its costs, and away from the other direction's benefits (Miller & Rollnick, 2002). Because individuals with GAD experience their anxiety and worry as impairing, distressing, and uncontrollable, and hold both positive and negative beliefs about worry, the possibility of change must be a double approach-avoidance conflict for many of those who seek treatment.

Whereas MI has traditionally focused on ambivalence about concrete problem behaviors, an alternative perspective—perhaps more relevant for narrative and emotion processes—considers ambivalence about changing the "self." In experiential terms, ambivalence is a marker of potential change. One of the basic principles of experiential models of therapy is that psychological health is rooted in congruence between self-concept, experience, and behavior (Pos, Greenberg, & Elliott, 2008; Rogers, 1961). Dysfunction and distress result from failure to own (i.e., to make meaning of, via integration into extant self-narratives) certain experiences. Rogers (1961) described a continuum ranging from a fully-functioning person (open to feelings, attitudes, and experiences and able to reference differentiated aspects of the self in order to flexibly respond to and make sense of unfolding situations) to a person who is less open to experience, instead using a rigid concept of the self as a guide for action and making sense of situations as they unfold. The NEPCS may also be conceptualized as demarcating various processes/steps along that continuum. For instance, the Competing Plotlines marker indicates the emergence of alternative possibilities—feelings, concepts, voices and actions—into an extant rigid, limited way of experiencing and conceptualizing the self, i.e., the Same Old Story. Destabilization of the dominant and problematic self-

narrative is thought to be a critical step towards the eventual re-construction of more adaptive and flexible self-narrative (Angus & Greenberg, 2011).

Self-discrepancy theory (Higgins, 1987) is one of many models in Psychology proposing that inconsistency (between behaviors, ideas, attitudes, values, etc.) creates discomfort; because an individual needs to maintain a coherent understanding of self and the world, emerging new views of the self can be experienced as threatening and/or destabilizing, and therefore avoided or devalued. Higgins' theory proposes that a discrepancy between one's self concept (a person's representation of the attributes he/she possesses) and one's "ought" self (a representation of the attributes one should possess, according to one's own or others' rules, duties, and responsibilities) reflects the presence of negative outcomes, i.e., a violation of how things should be and the likelihood of impending punishment. This state is thought to induce anxiety, uneasiness, guilt, and even self-contempt. Discrepancies with one's "ideal" self, in turn, reflect the absence of positive outcomes, inducing dejection, disappointment, sadness, and shame (Higgins, 1987). According to Westra (2012),

> "Clients can fear that changing means losing important aspects of themselves or critical aspects of identity that the status quo helped actualize […] if they give up existing ways of being, they will also be giving up important means of expressing core values such as being caring, responsible, reliable, loving, and the like." (p. 129).

Individuals with GAD have positive beliefs about worry that are instrumental, e.g., that worry helps prevent bad things, as well as positive beliefs about worry that pertain to valued aspects of identity or self-concept (Freeston et al., 1994). For example, many individuals with GAD believe that being a "worrier" means that one is a caring person, that one is needed by others for care-giving and safety, that one is a high-achiever, an

organized person, or a hard worker. In other words, relinquishing worry can create a discrepancy with the version of self that one "ought" to be, inducing tension and anxiety.

Working from a narrative-informed perspective and drawing on self-discrepancy theory, Ribeiro et al. (2014) conceptualize ambivalence as an oscillation between problematically dominant self-narratives, and the emergent voice of normally excluded, non-dominant aspects of the self. This introduction of an alternative voice

> "corresponds to the irruption of ambivalence or uncertainty, since this presents the client with discontinuity or rupture that challenges his usual framework of understanding […] As people seek to maintain a sense of relative stability, the client will soon try to resolve this inner tension." (Ribeiro & Gonçalves, 2010, p.120)

To reduce the discomfort caused by a discrepant alternative that, although potentially adaptive, also threatens one's self concept, clients tend to minimize, depreciate, or trivialize the emergent voice and return to the status-quo problematic narrative (what Ribeiro et al. term the "Return to Problem" marker). This ambivalence cycle—oscillating between an emergent new voice that protests the status quo, tension, and subsequent return to the dominant narrative to reduce tension—is common in early and middle stage therapy, and persists through late-stage therapy for poor-outcome clients (Ribeiro et al., 2014). According to Ribeiro et al., good outcome clients break the cycle of ambivalence through therapeutic interventions that help to increase dialogue between and integrate discrepant parts of the self, such as chair work.

MI is thought to work in a similar way—working with discrepant voices and helping to integrate them, so as to diminish the status-quo's dominance. Westra (2012) highlights the importance of attending to client values in MI for anxiety and depression, as a way of making space for and strengthening the emergent voice ("change talk," in MI

terminology). Client expressions of valued aspects of self are typically accompanied by heightened emotional engagement. In MI, therapists empathize with and accept the heightened emotion that accompanies client expressions of values, regardless of whether they occur in the context of the status quo narrative, or the emergent change voice (Westra, 2012). This may help to create enough space for both voices to dialogue, thus avoiding a swift "Return to Problem" narrative by the status-quo part of the self.

Rationale for examining narrative-emotion processes in GAD treatment. The NEPCS Competing Plotlines marker indicates a client's expression of ambivalent or conflicting beliefs, behavior tendencies, feelings, and values. Significant outcome x stage interactions for Competing Plotlines have been reported for clients undergoing emotion-focused and client-centered therapy for depression (Boritz et al., 2013) and emotion-focused therapy for trauma (Bryntwick et al., 2014; Carpenter et al., 2014). The Competing Plotlines marker, however, was nearly absent among clients receiving cognitive therapy for depression. This suggests that client expressions of ambivalence and incoherence are an important aspect of change, but may differ according to therapy modality. Because of MI's client-centered relational features and the putative centrality of ambivalence to both MI and GAD, it makes sense that Competing Plotlines will occur with some frequency during MI sessions in this sample. However, based on Boritz et al.'s (2013) cognitive therapy findings and the action-focused nature of CBT, Competing Plotlines may occur only rarely during CBT sessions. The Competing Plotlines marker thus provides a promising way to operationalize in-session client ambivalence, and may help to further distinguish how MI and CBT work in the treatment of GAD.

The Present Study

Purpose. The NEPCS was developed from the theoretical position that narrative-emotion processing is a universal feature of psychotherapy (i.e., irrespective of therapy modality), and that certain patterns of narrative-emotion processing may be a common factor predicting therapeutic outcome. The NEPCS has thus far been successfully applied to samples presenting with depression and complex trauma histories, undergoing person-centered, cognitive and emotion-focused therapy (Boritz et al., 2013; Bryntwick, 2014; Carpenter et al., 2014). Together, the results of these studies suggest that the NEPCS can be applied to different treatment modalities, that NEPCS marker patterns are associated with treatment outcome, and that some individual marker patterns differentiate clinical populations and treatment types. Although promising, the NEPCS needs to be applied to larger and more diverse samples to establish whether the coding system meaningfully and reliably captures narrative-emotion change processes across various psychotherapies and diagnostic populations.

Towards that end, the present study applied the NEPCS to a sample of individuals undergoing MI integrated with CBT for GAD. A preliminary goal was to verify that the NEPCS could be applied to this sample. The primary goal was to empirically elucidate in-session processes, pertaining to narrative and emotion processing, that are associated with outcome status following treatment for GAD. The NEPCS was selected as an appropriate tool given several characteristics of this clinical sample that were presented in the preceding pages: (1) emotion dysregulation and avoidance are thought to have an underlying role in worry, and GAD may feature reliance on over-general memory; (2) ambivalent attitudes towards worry and treatment are thought to be major barriers against

effective treatment; and (3) MI is believed to work by exploring and resolving client ambivalence. Appropriately, the NEPCS includes codes that operationalize relevant client behavior, including ambivalence (Competing Plotlines), self-awareness (Reflexive Story), and emotion processing (Inchoate Story and Experiential Story) versus emotion avoidance (Empty Story, Superficial Story) or under-regulation (Unstoried Emotion). Finally, the Discovery Story and Unexpected Outcome markers operationalize probable indicators of change in this sample, including re-conceptualization of worry and anxiety, and altered worry-related behavior.

Research Questions. The present study was guided by the following exploratory research questions:

1. Do all NEPCS markers and subgroups appear over the course of therapy for a sample of clients undergoing MI-CBT for GAD?

2. Are proportions of NEPCS markers and subgroups (i.e., Problem, Transition, and Change markers) differentially associated with stage of therapy (i.e., early, middle, late) in a sample of clients undergoing adjunctive MI prior to (i.e., early phase) CBT (i.e., middle and late phases)?

3. Do proportions of individual NEPCS markers differentially predict outcome in the present sample?

4. Do proportions of NEPCS subgroups differentially predict outcome in the present sample? Based on the exploratory findings of Boritz et al. (2013), Carpenter et al. (2014), and Bryntwick et al. (2014) in the context of therapy for depression and complex trauma, we expected the following:

a. A lower proportion of NEPCS Problem markers overall, and by stage of therapy for recovered vs. unchanged clients.

b. A higher proportion of NEPCS Transition markers overall, and at the early and middle stages of therapy for recovered vs. unchanged clients.

c. A higher proportion of NEPCS Change markers overall, and at the late stage of therapy for recovered vs. unchanged clients.

Method

Sample

The therapy sessions for this process study were drawn from the recently-completed study, "Integrating Motivational Interviewing with Cognitive Behavioral Therapy for Severe Generalized Anxiety Disorder: A Randomized Controlled Trial" (Westra, Constantino, & Antony, 2014). In the trial, 85 participants were randomly assigned to receive either 15 weekly sessions of CBT (XX-CBT), or four sessions of MI followed by 11 sessions of CBT (MI-CBT) integrated with MI as needed. For the present study, six client-therapist dyads were drawn from the 42 participants who completed treatment in the MI-CBT condition.

Clients. Clients for the larger trial were recruited through community advertisements in the Greater Toronto Area. Eligibility requirements for the trial included meeting the criteria from both the DSM-IV and DSM-5 for a principle diagnosis of GAD, as determined through a modified Structured Clinical Interview for Diagnosis-I for DSM-IV, patient edition (SCID-IP; First, Spitzer, Gibbon, & Williams, 2002). Participants also had to score above the cut-off for high-severity GAD on the Penn-State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990), i.e., 68 out of a

maximum score of 80. Co-morbid diagnoses of depression and/or other anxiety disorders, and concurrent use of antidepressant medication, were permitted. The six clients selected for the present study's sample included five women and one man. Participants had a mean age of 34.17 years (SD = 10.13). Client demographics are summarized in Table 1.

Therapists. There were 23 therapists (100% female) in the larger trial. Individual therapists were nested within only one of the treatment conditions, which they self-selected, in order to control for allegiance effects. Therapists in the MI-CBT condition (*N* = 10) included nine doctoral candidates in clinical psychology, and one post-doctoral psychologist. Their mean age was 28.33 (SD = 2), and they had a median of 200 hours therapy experience. Therapists identified their primary therapeutic orientation as integrative (56%), client-centered (22%), and cognitive-behavioral (22%). All training and supervision for therapists in the MI-CBT group was conducted by the principal investigator and lead author of the trial (H. Westra). Therapists were trained through readings, four day-long workshops including discussion and role-play, and between one and three practice cases involving intensive feedback and review of videotaped therapy sessions. After being deemed competent in MI-CBT delivery (9 of 13 therapists who underwent training), therapists began seeing study clients. Supervision after this point consisted of weekly individual meetings and videotape review. The six clients selected for the present study had been assigned to one of four therapists, all doctoral candidates.

Treatment. Participants received four sessions of MI, followed by 11 sessions of CBT integrated with MI principles and responsivity to motivational markers as they emerged in the sessions. Treatment followed a manual outlining the principles of MI modified for specialized application to a GAD sample (i.e., to working with ambivalence

about worry). The manual outlined the application of MI, as well as ways in which therapists could use MI as a foundational base from which to integrate specific, directive CBT interventions.

MI. Treatment consisted of Miller and Rollnick's (2002) principles and methods, modified so as to specifically target ambivalence about worry and changing one's worry-related behavior (e.g., planning, checking, over-preparing) and other common problems that are often associated with worry (e.g., social anxiety, perfectionism, interpersonal problems) (Westra et al., 2014). This included maintaining a client-centered relational stance, also known as the "MI spirit," defined by collaboration, respect for client autonomy, and providing evocative empathy. From that "MI spirit," specific principles and techniques for working with ambivalence included: expressing empathy for ambivalence; developing discrepancy between problem behaviors and intrinsic values; rolling with resistance, and supporting client self-efficacy. The MI protocol emphasized therapist flexibility and responsiveness to indicators of both interpersonal resistance (i.e., opposition to the therapy/therapist), and intrapersonal client ambivalence and motivation (Westra, 2014).

Strategies for MI-CBT integration. Therapists were trained to maintain their underlying MI spirit as a foundation from which to apply the CBT techniques outlined below. Therapists continually gauged client responsiveness, engagement, resistance, and ambivalence. When ambivalence about change re-emerged, therapists could switch back to MI techniques. The MI-spirit emphasis on client autonomy, collaboration, and empathy helped inform therapists' judgment of client needs, feedback, and responsiveness, and to time the delivery of CBT components accordingly (Westra, 2012).

CBT. The CBT phase of treatment for clients in the MI-CBT condition involved the same components of the CBT-only condition in the larger trial, which was adapted from several evidence-based protocols (Coté & Barlow, 1992; Craske & Barlow, 2006; Zinbarg, Craske, & Barlow, 2006). Components included: psychoeducation about anxiety and worry; self-monitoring; progressive muscle relaxation training; discrimination training; cognitive restructuring with an emphasis on probability estimation and catastrophic thinking; behavioral experiments to test feared outcomes; imagined and *in vivo* exposure to worry cues; prevention of worry-related behaviors; discussing sleep strategies; and relapse-prevention planning. Treatment protocol also included explicit strategies for managing (preventing and responding to) homework noncompliance.

Measures

Narrative Emotion Process Coding System (Boritz et al., 2012). The NEPCS is a standardized manual for coding linguistic and paralinguistic behavior in videotaped psychotherapy sessions. Ten mutually exclusive client markers each describe linguistic and paralinguistic behaviors that indicate different underlying narrative-emotion processes (see Appendix A). Each one-minute time segment of the therapy session is coded with one marker (if multiple markers occur, the most salient is coded). Good levels of inter-rater reliability have been reported in previous studies (Cohen's Kappa = 0.84, Boritz et al., 2013).

Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990). The PSWQ is a self-report measure of trait worry, widely used with both clinical and non-clinical samples. Respondents indicate on a scale from 1 (= *not at all typical*) to 5 (= *very typical*) the extent to which statements about worry behavior are typical of themselves. Higher

scores indicate more severe worry. The PSWQ has good internal consistency and test-retest reliability (Meyer et al., 1990; Dear et al., 2011) and good convergent and discriminant validity (Brown, Antony & Barlow, 1992).

Procedure

Sample Selection. Reliable change index analyses (RCI; Jacobson & Truax, 1991) of the trial's primary outcome measure, the PSWQ (Meyer et al., 1990) were used to identify a sample of recovered and unchanged clients in the MI-CBT treatment group. First, a cut-off score (52) was used to establish whether a client's post-treatment PSWQ score was closer to that of the pre-treatment clinical population or that of the functional general population. Second, a RCI criterion was established to determine whether the degree of pre-post PSWQ score change was significant. Clients who passed both the cutoff and RCI change criteria were classified as recovered, those who passed neither were classified as unchanged, and those who showed reliable change but did not meet the cutoff score for the normal range were considered improved but not recovered. Three recovered clients and three unchanged clients were then selected for the present study.

For each of the six clients, two early, two middle, and two late-stage therapy sessions (i.e., sessions 1, 3, 6, 8, 11, and 13) were selected for coding. For one of the clients, session 12 replaced session 11 due to problems with the video file for session 13 (see Table 1).

NEPCS Coding.

Coders. One master's student, two doctoral students, and one pre-master's volunteer (all female, all studying clinical psychology) applied the NEPCS to videotaped sessions from the sample. The two doctoral students had over three years' experience

with the NEPCS (approximately 300 coding hours), while the master's and pre-master's student had approximately 100 coding hours and 50 coding hours, respectively. 58% of the sample was consensus-coded by the master's student with one of the doctoral students. 33% of the sample was coded by the master's student and both doctoral students. The pre-master's volunteer coded 8% of the sample, in conjunction with one of the other coders.

Coding Procedure. The coding team was blind to outcome status. The NEPCS was applied to the sample using Noldus Observer XT video software for behavioral coding. The software segmented each videotaped session into one-minute time bins. Previous applications of the NEPCS have determined that a one-minute segment appears to be a workable duration that allows a complete NEPCS marker to be captured, without multiple distinct markers emerging in a single segment (Boritz et al., 2013).

After observing each segment, the coders determined which of the NEPCS markers was most applicable (clearly present for the longest duration) for that minute. When more than one marker was present in a single one-minute segment, the marker present for the longest duration was coded. When two markers were present for equal duration or the client appeared to vascillate between two markers for the duration of the minute, the most salient marker was coded. No Client Marker was coded for segments in which the therapist had more than 30-40 seconds of airtime. When therapist airtime was between 30 and 40 seconds (i.e., client airtime was between 20 and 30 seconds), the coders made a subjective judgment as to whether a clear client marker was present, and if so, whether it was of greater salience than the therapist's contribution.

Inter-rater Agreement. Open consensual validation was used for 67% of the sample (24 sessions). The coding team viewed the videotaped sessions together one minute at a time, and each of the two or three coders privately selected a code. Prior to moving on to the next segment, codes were compared and, in the event of disagreement, discussed until consensus was reached. For the remaining 33% of the sample (12 sessions), two coders independently coded sessions, which were later compared in order to assess inter-rater agreement. Following this independent coding process, open discussion and consensual validation (including consultation with a 3rd coder) was used to resolve any disagreement.

The overall inter-rater reliability was found to be Kappa = 0.805, which is considered very good agreement (Hill & Lambert, 2004). This was calculated based on independent coding of one-third of the sample (12 sessions). The author coded all 12 sessions, while two additional coders rated 6 sessions each. The 12 sessions selected for reliability coding were drawn from 5 of the 6 clients in the study, and included 3 early, 4 middle, and 5 late sessions; 5 sessions were from recovered clients, and 7 were from unchanged clients. Kappa values for the 12 individual sessions ranged from 0.715-0.895.

Statistical Analyses

The data in this study were longitudinal with a multilevel structure nested at three levels of random and fixed effects: clients within outcome status; stages within clients; and sessions within stages. Multilevel modeling was used in order to account for the non-independence of observations and complex structure of the data. The main analyses were conducted through a multi-level modeling regression using proportions of NEPCS markers (or subgroups) within sessions as the response variable. The predictors tested

were therapy stage (early vs. middle vs. late), outcome (recovered vs. unchanged), and stage x outcome interaction, with random intercepts for clients. Statistical analyses were conducted using the nlme package for R statistical software.

Results

The present study examined whether outcome status (recovered vs. unchanged) and stage of therapy (early vs. middle vs. late) predicted proportions of NEPCS markers in two early, two middle, and two late stage therapy sessions for a sample of six clients who received MI-CBT for GAD. For initial descriptive analyses, NEPCS marker proportions were averaged across all clients in one outcome group, for all of the therapy sessions at that stage of therapy. For example, the mean proportion of the Competing Plotlines marker for recovered clients at early stage therapy was created by averaging the proportion of Competing Plotlines for clients IV327, ER220, and EX225 in session 1 (.16, .32, .15, respectively) and session 3 (.21, .27, .11, respectively). The proportions across stages of therapy were averaged to create a mean overall proportion per outcome group, and the proportions across outcome groups at each stage were averaged to create a mean proportion per stage. For subsequent analyses of stage, outcome, and outcome x stage interaction effects, multilevel modeling analyses were conducted using R statistical software. All proportions were converted to percentages for clarity in the following sections (and in Tables 2-4), but the terms "proportion" and "percentage" are used interchangeably throughout.

Research Question 1: descriptive proportions of NEPCS markers

Across all therapy dyads (N = 6) and all sessions of psychotherapy (N = 36), a total of 2019 NEPCS markers were coded. These included 643 (31.9%) in early stage

therapy, 669 (33.14%) in middle stage therapy, and 707 (35%) in late stage therapy. Of the 2019 NEPCS markers coded, 1020 (50.52%) were coded in the recovered group, and 999 (49.48%) in the unchanged group. Raw frequencies and mean proportions for each NEPCS marker are summarized by subgroup in Tables 2 (Problem markers), 3 (Transition markers) and 4 (Change markers with No Client Marker). Patterns observed for each NEPCS marker are presented below; note that any descriptive comparisons between outcome groups do not indicate statistically significant differences.

Same Old Story. A total of 61 Same Old Story markers were recorded overall (3% of all markers coded). Same Old Story occurred more frequently among unchanged clients (n = 42, 4.2% of all markers coded) compared to recovered clients (n = 19, 1.9% of all markers coded). This was true at the early (unchanged: n = 23, 7.3%; recovered: n = 14, 4.3%), middle (unchanged: n = 7, 2.1%; recovered: n = 2, 0.006%), and late (unchanged: n = 12, 3.35%; recovered: n = 3, 0.009%) stages of therapy.

Empty Story. There were a total of 112 Empty Story markers recorded (5.55% of all markers coded). Unchanged clients evinced more Empty Story markers (n = 85, 8.51%) compared to recovered clients (n = 27, 2.65%). This difference was most notable in the middle stage (unchanged: n = 35, 10.74%; recovered: n = 12, 3.50%) and late stage therapy (unchanged: n = 50, 13.97%; recovered: n = 27, 7.74%).

Unstoried Emotion. Frequencies of the Unstoried Emotion marker were quite low overall (N = 42, 2.08%), with unchanged clients accounting for more (n = 31, 3.1%) than recovered clients (n = 11, 1.08%). This difference was most notable at the middle stage of therapy (unchanged: n = 15, 4.6%; recovered: n = 7, 2.04%).

Superficial Story. The most frequently occurring NEPCS marker overall was Superficial Story (*N* = 695, 34.4% of all markers coded). The Superficial marker occurred slightly more frequently in unchanged clients (*n* = 391, 39.1% of all markers coded) compared to recovered clients (*n* = 304, 29.8% of all markers coded) across all stages of therapy. This difference was most notable in late-stage therapy (unchanged: *n* = 163, 45.5%; recovered: *n* = 109, 31.2%).

Reflexive Story. A total of 154 Reflexive Story markers were recorded overall (7.63% of all markers coded). The Reflexive Story occurred more frequently among recovered clients (*n* = 117, 11.47% of all markers coded) compared to unchanged clients (*n* = 37, 3.70% of all markers coded). This difference was most notable at the early (recovered: *n* = 60, 18.29%; unchanged: *n* = 19, 6.03%) and late (recovered: *n* = 29, 8.3%; unchanged: *n* = 3, 0.83%) stages of therapy.

Experiential Story. The Experiential Story marker was the least-frequently-occurring marker (*N* = 13, 0.64%). Recovered clients accounted for nearly all of the Experiential Story markers coded (*n* = 12, 1.18%). There was only a single occurrence of this marker among unchanged clients (0.1% of all markers coded).

Inchoate Story. The Inchoate Story was also very uncommon overall (*N* = 14, 0.69%), with recovered clients accounting for more Inchoate Stories (*n* = 11, 1.08%) than unchanged clients (*n* = 3, 0.30%).

Competing Plotlines. The third-most frequently occurring marker was Competing Plotlines (*N* = 225, 11.14% of all markers coded). Over the course of therapy, there were more Competing Plotlines markers for recovered clients (*n* = 144, 14.11%) compared to unchanged clients (*n* = 81, 8.11%). This pattern was consistent across the

early (recovered: *n* = 65, 19.8%; unchanged: *n* = 36, 11.43%), middle (recovered: *n* = 46, 13.41%; unchanged: *n* = 30, 9.2%), and late (recovered: *n* = 33, 9.46%; unchanged: *n* = 15, 4.19%) stages of therapy.

Unexpected Outcome. There were 101 Unexpected Outcome markers coded overall (5% of all markers coded), with far more identified in the recovered group (*n* = 98, 9.61% of all markers coded) compared to the unchanged group (*n* = 3, 0.3% of all markers coded).

Discovery Story. The Discovery Story marker occurred 64 times overall, all of which were identified in the recovered group (6.27% of markers recorded in the recovered group).

No Client Marker. Finally, No Client Marker was the second most frequently occurring marker overall (*N* = 538, 26.65% of all markers recorded). More were identified among unchanged dyads (*n* = 325, 32.53%) compared to recovered clients (*n* = 213, 20.88%). This was most notable at the early phase of therapy (unchanged: *n* = 107, 33.97%; recovered: *n* = 49, 14.94%).

Research Question 2: stage effects on proportions of NEPCS markers

Mean proportions of all narrative-emotion process subgroups (Problem, Transition, and Change) by outcome group and stage of therapy are presented in Tables 2-4. Significant statistical findings and marginally significant findings ($.05 < p < .10$) are presented below.

There was a significant main effect of stage on the proportions of Same Old Story, Reflexive Story, and Competing Plotlines markers. Specifically, there were higher proportions of Same Old Story at early vs. middle stage therapy, $t(32) = 2.83$, $p = 0.0079$

(mean difference = 5.1%) and at early vs. late stage therapy, $t(32) = 2.37$, $p = 0.0241$ (mean difference = 4.3%). There were higher proportions of Reflexive Story at early vs. middle stage therapy, $t(32) = 2.20$, $p = 0.0354$ (mean difference = 5.7%), and at early vs. late stage therapy $t(32) = 2.94$, $p = 0.0061$ (mean difference = 7.6%). For Competing Plotlines, there was a higher proportion at early vs. late stage therapy, $t(32) = 2.51$, $p = 0.0175$ (mean difference = 9.1%).

There was also a significant main effect of stage on the proportions of Transition Markers. Proportions of the Transition subgroup were higher at early vs. middle stage therapy, $t(32) = 2.31$, $p = 0.0277$ (mean difference = 10.4%), and at early vs. late stage therapy, $t(32) = 3.82$, $p = 0.0006$ (mean difference = 17.3%). There was no evidence of a significant main effect of stage on the proportions of Superficial Story, Empty Story, Unstoried Emotion, Experiential Story, Inchoate Story, Unexpected Outcome, or on the Problem Markers subgroup.

Research Question 3: Effects of outcome and outcome x stage interactions on proportions of NEPCS markers

Mean proportions of all narrative-emotion process markers by outcome group and stage of therapy are presented in Tables 2-4. Significant statistical findings and marginally significant findings ($.05 < p < .10$) are presented below.

Empty Story. There was a trend towards a higher proportion of Empty Story among unchanged vs. recovered clients across all stages of therapy, $t(32) = 1.88$, $p = 0.0692$ (mean difference = 6.2%).

Superficial Story. There was a trend towards a higher proportion of Superficial Story among unchanged vs. recovered clients across all stages of therapy, $t(32) = 1.76$, $p = 0.0885$ (mean difference = 9.2%).

Experiential Story. There was a trend towards a higher proportion of Experiential Story among recovered vs. unchanged clients across all stages of therapy, $t(32) = 1.84$, $p = 0.0753$ (mean difference = 1.2%).

Reflexive Story. There was a significant main effect of outcome for the Reflexive Story marker. Recovered clients had significantly higher proportions of Reflexive Story compared to unchanged clients across all stages of therapy, $t(32) = 3.82$, $p = 0.0002$ (mean difference = 8.1%). There was no evidence of an outcome x stage interaction for proportions of Reflexive Story.

Competing Plotlines. There was a significant main effect of outcome for the Competing Plotlines marker. Recovered clients evinced higher proportions of Competing Plotlines compared to unchanged clients across all stages of therapy, $t(32) = 2.05$, $p = 0.0491$ (mean difference = 6.1%). There was no evidence of an outcome x stage interaction for proportions of Competing Plotlines.

Unexpected Outcome. There was a significant main effect of outcome on proportions of the Unexpected Outcome marker. Recovered clients had higher proportions compared to unchanged clients across all stages of therapy, $t(32) = 3.99$, $p = 0.0004$ (mean difference = 9.4%). There was no evidence of an outcome x stage interaction for proportions of Unexpected Outcome.

Discovery Story. There was evidence of a significant outcome x stage interaction on the proportion of Discovery Story markers. Recovered clients had higher proportions

of Discovery Stories compared to unchanged clients at the late stage of therapy (mean difference = 13.3%). There was no significant difference in the proportion of Discovery Story markers between recovered and unchanged clients at the early or middle stages of therapy.

No Client Marker. There was a trend towards higher proportions of No Client Marker among unchanged vs. recovered clients across all stages of therapy, $t(32) = 1.97$, $p = 0.0570$ (mean difference = 12.2%).

Research Question 4: Effects of outcome and outcome x stage interactions on proportions of NEPCS subgroups

Mean proportions of all narrative-emotion process subgroups (Problem, Transition, and Change) by outcome group and stage of therapy are presented in Tables 2-4. Significant statistical findings and marginally significant findings ($.05 < p < .10$) are presented below.

Problem markers. There was a significant main effect of outcome on proportions of the Problem Markers subgroup (i.e., combining Same Old Story, Empty Story, Unstoried Emotion, and Superficial Story). Unchanged clients had significantly higher proportions of Problem markers compared to recovered clients across all stages of therapy, $t(32) = 2.73$, $p = 0.0101$ (mean difference = 19.7%). There was no evidence of an outcome x stage interaction for proportions of Problem Markers.

Transition markers. There was a significant main effect of outcome on proportions of the Transition Markers subgroup (i.e., combining Inchoate Story, Experiential Story, Reflexive Story, and Competing Plotlines). Recovered clients had higher proportions of Transition Markers compared to unchanged clients across all stages

of therapy, $t(32) = 4.35$, $p = 0.0001$ (mean difference = 16.1%). There was no evidence of an outcome x stage interaction for proportions of Transition markers.

Change markers. There was a significant outcome x stage interaction effect on the proportions of the Change Markers subgroup (i.e., combining Unexpected Outcome and Discovery Story). Recovered clients had higher proportions compared to unchanged clients at the late stage of therapy, $t(32) = 4.42$, $p = 0.0001$ (mean difference = 25.9%). There was no evidence for significant differences in the proportion of change markers between outcome groups at the early and middle stages of therapy.

Discussion

The present study examined narrative-emotion processes in a sample of therapy sessions for clients undergoing MI and CBT for GAD. A preliminary goal was to explore whether the NEPCS could be extended to this sample. The primary goal was to examine the relationship between proportions of NEPCS markers, stage of therapy, and outcome status. Analyses were conducted on NEPCS subgroups (Problem, Change, and Transition markers) as well as individual NEPCS markers. In the following sections, I will review and discuss descriptive analyses of NEPCS marker proportions. This is followed by a discussion of the effect of therapy stage on NEPCS markers proportions. Next, I will review and interpret the effects of outcome and outcome x stage interactions on NEPCS marker and subgroup proportions, in the context of current research literature on GAD, MI, and ambivalence in psychotherapy. Finally, limitations and future research directions will be discussed.

Application of the NEPCS to MI-CBT for GAD

A preliminary research question for this study was to explore whether the NEPCS could be applied to a sample of clients undergoing MI and CBT for GAD. The NEPCS was systematically applied to two early, two middle, and two late sessions (i.e., sessions 1, 3, 6, 8, 11, and 13). Descriptive analyses of the proportions of NEPCS markers at each stage of therapy indicate that the NEPCS is applicable to this sample. Every marker occurred at each stage of therapy. Furthermore, descriptive comparisons of the proportions of each individual marker revealed differences between outcome groups that were in the expected theoretical direction, which is a preliminary indicator of NEPCS validity as a measure of therapeutic process in this sample. Recovered clients had lower proportions of all the Problem markers, and higher proportions of all the Transition and Change markers, compared to unchanged clients (statistically significant differences will be examined in subsequent sections).

Although every marker occurred at each stage of therapy, the percentage of Experiential Story was notably low. Percentages were: 0.6% overall; 1.2% among recovered clients; and 0.1% among unchanged clients. Experiential Story is a new marker, thought to reflect the experiential re-entry into an ABM, including associated sensory details, internal experience, and emotional reactions. It was tentatively included in coding procedures for the present study and for Bryntwick et al. (2014), after this process was observed in Carpenter et al.'s (2014) pilot trauma sample. Experiential re-entry is thought to be an important element of trauma therapy because it facilitates memory reprocessing of traumatic events (Paivio & Pascuale-Leone 2010). Experiential re-entry into specific ABMs may be a recovery-facilitating process for other clinical

populations, including CBT for GAD. For example, the narrative disclosure of specific ABMs and the emotional arousal they tend to evoke is important in order to access distorted cognitions and facilitate reframing and reattribution strategies central to CBT (Hayes, Beck, & Yasinski, 2012; Williams, Stiles, & Shapiro, 1999).

Experiential storytelling is also relevant to GAD because worry is thought to be a cognitive avoidance strategy, perhaps by blunting aversive anxious arousal and feared images, including ABM-related imagery (Borkovec et al., 2004). Because worry inhibits processing of emotion, persistent anxious arousal and imagery may persist, prompting more worry (Foa & Kozak, 1986). Experiential storytelling may be an important factor in GAD treatment by promoting the processing of emotion and fearful imagery, thus helping to break the avoidance cycle. The fact that Experiential Story occurred very rarely in this sample does not necessarily render it irrelevant: we do not yet have evidence to suggest that there is an equivalent dose effect for each NEPCS marker. It may be that infrequent markers are just as, or more, predictive of outcome as frequent markers. As reported in the Results section, there was a trend towards significance for a higher percentage of Experiential Story among recovered vs. unchanged clients across all stages of therapy. This suggests that recovered clients were more able to engage in experiential re-entry into specific ABMs, which—even in a very "small dose"—may have helped to facilitate reductions in anxiety and worry.

These descriptive findings can also be contextualized against the percentages of NEPCS markers in previous NEPCS studies. Competing Plotlines, Inchoate Story, and No Client Marker were quite different from their respective percentages observed by Boritz et al. (2013) and Bryntwick et al. (2014). The percentage of Competing Plotlines

(11.2% overall) was considerably higher than in Boritz et al.'s depression sample (1.6% overall) and in Bryntwick et al.'s trauma sample (8.1% overall). Competing Plotlines markers are coded when clients express competing thoughts or feelings in relation to a specific context. Given that MI explicitly focuses on evoking, exploring, and resolving client ambivalence, it makes sense that percentages of Competing Plotlines were higher in the present study vs. those observed in other treatment modalities.

The percentage of Inchoate Story was 0.7% overall. In previous studies, Inchoate Story percentages were much higher among depressed clients receiving emotion-focused therapy (4.4%) and client-centered therapy (6.8%), and for clients receiving emotion-focused therapy for trauma (3.7%) (Boritz et al., 2013; Bryntwick et al., 2014). The Inchoate Story marker indicates that the client is engaged in accessing, exploring, and symbolizing emergent internal experience. Notably, Boritz et al. (2013) also examined cognitive therapy for depression; consistent with the present study's results, Inchoate Story in that group only occurred 1.1% of the time. This suggests that the low proportion of the Inchoate Story process in the present study may be a consequence of treatment modality. Both client-centered and emotion-focused therapy emphasize the exploration of present-moment felt experience (Pos et al., 2008), whereas CBT does not explicitly do so.

Finally, percentages of No Client Marker were higher (25.9% overall) compared to those observed in client-centered therapy (7.3%) and emotion-focused therapy (12.8%) for depression, and emotion-focused therapy for trauma (15%), but lower than those observed in cognitive therapy for depression (38.5%). This makes sense given that, compared to emotion-focused and client-centered therapy, CBT and (to a lesser extent) MI are directive approaches that require more therapist talk.

Proportions of NEPCS Markers by stage of MI-CBT

Because the present study examined sessions from two types of sequential therapy (i.e., 4 sessions of MI followed by 11 sessions of CBT), an additional exploratory research question was whether stage of therapy differentially predicted the proportions of NEPCS markers, and the Competing Plotlines marker in particular. The findings demonstrated significant effects of stage on the proportions of Same Old Story, Competing Plotlines, Reflexive Story markers, and the Transitions subgroup.

Same Old Story. This marker indicates low personal agency, black-and-white thinking, and a sense of stuckness in one's behavioral, interpersonal, emotional, or thought patterns. Across outcome groups, proportions of Same Old Story were higher at the early stage of therapy compared to the middle and late stages of therapy. This finding is consistent with Bryntwick et al.'s (2014) results. It demonstrates that both recovered and unchanged clients entered therapy with rigid, maladaptive views of themselves as stuck in their problems (i.e., worry and anxiety), but that they spent less time in Same Old Storytelling over the course of therapy. The following transcript example of a Same Old Story is from the first session for an unchanged client:

C: *In terms of my skills, I question how good I would be in a new post.*
T: *So what makes you question yourself? On one hand your skills, you're not sure if it would be suited to certain positions, is there anything else?*
C: *Yeah, I just, it's a matter of also, like, the stress, and the worry, and how—how—I would be able to, you know, cope with that.*
T: *Mmmhmm.*
C: *You know, I did it in my early 20s with this job, and I had a really hard time, and um*
T: *So what was that period like?*
C: *Oh, it was really bad. 'Cause, you know, you move to Toronto from Oakville, you're a student, you make no money after being a student, and to land your first job, and then my boss was really tough, and I was just, it was just, I was a nervous wreck. Constantly. And I remember growing up and going to school and always having a knot in my stomach, and* [pauses, begins to cry] *Sorry.*

T: *Don't apologize.*
C: [Laughs]. *And, um, it was almost like that, it was just so overbearing, you know? Because you wake up in the morning and you're like 'oh my god'* [helpless tone, throws her hands up in pleading gesture]. *You know, what's this day going to be like?*
T: *So what were the fears about, what was that anxiety tied to?*
C: *Um, failure. Not being able to do the job. Not being able to…and then, having to look for another job, and basically never being able to do it, you know?*

This client has a view of herself as unable to cope with overwhelming anxiety, and that this has always hindered her ability to perform at work and school. The hopeless helplessness persists for this client, as illustrated by the following Same Old Story excerpt from her eighth session:

C: *Yeah, cause like I said before I'm like, "why can't I cope?" Like, why can't, why do I need this [medication]?* [Crying]
T: *So I mean, in terms of breaking it down, it sounds like a part of you wonders if this position isn't right for you in the long run…*
C: *I know it isn't, and I'm going to have to change it.*
T: *And do you feel—I guess, I'm trying to get a sense of different parts of it…* [1-minute discussion of what is stressful about her work]
C: *So it's just, I think initially, it's work. I think for me, it's work. But even if I was to change my job to somewhere else, I think there would be other stresses, you know what I mean?* [Heavy sigh]
T: *OK, well, do you want to--*
C: *It's just--*
T: *Sorry, finish what you were saying.*
C: *Then, and then, where will I be? You know? Like, what if I can't cope with that either?*

Although there was no significant effect of outcome on the proportions of Same Old Story, descriptive comparisons indicate that unchanged clients spent more time articulating a Same Old Story at the beginning of therapy (8%) compared to recovered clients (4.7%). This may suggest that unchanged clients were more "stuck" upon entering therapy. Many individuals who enter treatment are in a "pre-contemplation" stage of change; in terms of ambivalence, this means they are more pulled towards the status quo than towards change (Dozois, Westra, Collins, Fung, & Garry, 2004). The Same Old

Story reflects the problematic status-quo's grip on a client's self-concept and behavior, and the high proportion at the early stage of therapy suggests that unchanged clients may have been in the pre-contemplation stage upon entering therapy (and remained there), despite MI's focus on resolving ambivalence about change.

Reflexive Story. Reflexive Story is a marker of analysis or reflection on behavioral, cognitive, emotional, or interpersonal patterns that often includes some explanation of why or how the client believes those patterns emerged. This analysis cannot reflect novel understanding (which would be a Discovery Story). The findings demonstrated a higher proportion of Reflexive Storytelling at the early stage of therapy compared to the middle and late stages. The Reflexive Story is a new marker that has received only preliminary empirical validation (Bryntwick et al., 2014). The present study's results provide further support for this marker's validity. High proportions of Reflexive Story in the early stage are consistent with our conceptualization of the marker: it indicates the client's *extant* self-awareness and a capacity for making connections, rather than some novel understanding or skill that emerges through therapy.

Competing Plotlines. The Competing Plotlines marker indicates client ambivalence. Proportions were significantly higher at the early stage of therapy compared to the late stage, but there were no significant difference between the early and middle, or middle and late stages of therapy. This is consistent with the MI-CBT phasing of therapy in this sample; MI emphasizes working with client ambivalence, and was applied in the first four sessions (early stage), followed by CBT integrated with MI as needed over the following 11 sessions (middle and late stages). This finding also suggests that NEPCS markers appear to be sensitive to different therapies' active ingredients. A clear next

research step is to expand the present study to include six clients from the XX-CBT condition, in order to test for treatment and treatment x stage effects on proportions of Competing Plotlines.

Transition markers subgroup. Finally, there was a significant stage effect for the Transition subgroup, with higher proportions at the early stage of therapy compared to middle and late stage. The Transition codes are thought to mark modes of processing that catalyze the construction of new, more adaptive self-narratives. They indicate productive processes towards *potential* change, rather than indicating change as a fait accompli. Clients spent more time in Transition processes at the early stage of therapy compared to late stage therapy (whereas Change markers are higher at the late stage of therapy for recovered clients, as will be discussed below). This finding thus lends further support to Bryntwick et al.'s (2014) preliminary empirical validation of the Transition Markers subgroup as distinct from the Change Markers subgroup.

Considered together, these four stage effects provide preliminary support for the theoretical premise that clients enter therapy with dominant self-narratives reflecting stuckness and low personal agency, and that self-narratives begin to change over the course of therapy. The interruption of dominant extant self-narratives appears to unfold through reflexive understanding of problematic patterns, and the expression of competing/incongruent desires, feelings, or thought patterns (Angus & Greenberg, 2011).

Proportions of NEPCS Markers in relation to Therapeutic Outcome

The primary purpose of this study was to examine whether NEPCS markers were differentially predicted by client outcome status. The present study identified several

interesting findings pertaining to the relationship between outcome and several of the individual NEPCS markers.

Empty Story and Superficial Story. Empty Story denotes client narratives that describe an event (e.g., a specific ABM) in detail or provide externalized, impersonal factual information, and which lack emotional expression or indicators of emotional arousal. There was a trend towards significance for higher proportions of Empty Story among unchanged clients, compared to recovered clients. Unchanged clients spent more therapy time engaged in Empty Storytelling, i.e., articulating verbal-linguistic content devoid of emotional expression. Recovered Clients demonstrated lower proportions of Empty Storytelling over the course of therapy, suggesting that they may have been better able to access specific ABMs and thus integrate emotional content into their detailed accounts of events.

There was also a trend towards significance for higher proportions of Superficial Story among unchanged clients. Superficial Story is a marker of over-generalization and a focus on hypothetical, vague, intellectualized, or impersonal content. There is some indirect evidence that individuals with GAD may rely on over-general memory as a means of avoiding the vivid imagery and emotion associated with negative ABMs (Burke & Mathews, 1992). Furthermore, avoidance of internal experience in general may play a role in GAD etiology (Roemer et al., 2005). It makes sense that individuals who are disconnected from their internal experience would have self-narratives dominated by intellectualized, vague, or other-focused content.

Both of these trends are consistent with research suggesting that worry is a cognitive strategy for avoiding internal experience, including distressing images and

associated emotional arousal (Borkovec et al., 2004). Worry is known to have the effect of blunting emotional arousal associated with mental imagery (Raes et al., 2003), which may have manifested in therapy as higher proportions of Empty Story. Furthermore, worry concerns the possibility of negative outcomes from future events. As such, its content can only be abstract or hypothetical, and worry keeps an individual's awareness diverted from present-moment internal experience. Superficial Story denotes self-narratives dominated by abstract, hypothetical, other-focused content. To summarize, both Empty Story and Superficial Story were considered possible ways to operationalize the narrative-emotion processes that underlie worry in GAD. It thus makes sense that unchanged clients (i.e., those who still scored high on a measure of worry at post-treatment) spent more therapy time articulating Superficial and Empty Stories compared to Unchanged clients. The following Empty Story excerpt is from session 11 for an unchanged client:

T: *So, in terms of managing your anxiety in this situation, it makes sense that you'd be waiting on edge to find out what the insurance company is going to say. What do you think you can tell yourself, to just help cope with that?*

C: *Um, the only way that I've ever seen myself help cope with something like this is to keep pushing it to get it done. Keep pushing it to the point where it is resolved. That's the only thing that I've felt that satisfies me. Like, probably, on Friday I probably called the insurance company five times on one day. To check. Like, Thursday night, I was on the train going home. And the lady told me you need to fax in the whole inspection profile. Because I only gave them pieces, because I didn't really know what they really wanted so they said ok send us a summary of what you want them to fix. So then I was on the way home on the train and I called and I said 'is everything ok now?' and they're like, 'no well now we want you to fax the whole thing in.' So I can't get to a fax machine until I go back to the office in the morning, I don't have one at home. So I went in to the office, first thing Friday morning, I was there like 8:00 in the morning, trying to fax this thing. And the fax machine won't go through. Finally, 9:10, the fax goes through. And I called the insurance company right away. Ok, I sent the fax, it went through, got confirmation, give it to the underwriter, see what they say. 'The fax has not come through yet in our system. It could take possibly 24 hours.' What? They said, 'call us back in a*

> *couple of hours, maybe it will go through.' So I called back in a couple of hours, still nothing. So then I filed the section…*[flat vocal tone throughout].

The tendency to focus on external details related to "what" happened (vs. internal experience, description of overall patterns, or analysis) was very typical of this client's narratives throughout therapy.

Reflexive Story. Reflexive Story is coded for client narratives that include a coherent analysis or reflection on an ABM or on a behavioral, cognitive, emotional, or interpersonal pattern. It is self-focused and often includes some explanation of why or how the client believes those patterns emerged, but there is no indication of *novel* understanding. Over the course of therapy, recovered clients spent significantly more time articulating Reflexive Stories compared to unchanged clients. The following transcript excerpt is from an exemplar Reflexive Story segment from session 3 for a recovered client:

C: *It did kind of feel good to chat with her about it but, stuff like the divorce, she just won't go there. She's very dismissive. But I think she has her own issues with it.*
T: *Absolutely, I mean, it could be too painful for her. I mean, I'm wondering, it's obviously really affected your life too, which of course it would, so I mean, your reaction to it is important.*
C: *Yeah.*
T: *It sort of sounds like a lot of your worry comes from that as well.*
C: *Yeah.*
T: *Is that right?*
C: *Yeah. I was thinking about that a lot last week and I was thinking, well, I did suffer with anxiety before that happened, when I was a kid, um, but obviously, I don't think the divorce helped. Like I think that just escalated it.*
T: *Mmhmm, right.*
C: *Like the need for control and the abandonment and stuff like that. Because when I think about my past relationships and stuff like that, there was definitely always that fear of abandonment there.*
T: *Right.*
C: *And like the constantly always needing to go to the worst-case scenario. Because I really wasn't prepared, like when my mum left, it was totally like 'what just happened?'*

T: *Mmhmm, right, like it turned your world upside down.*

Note that, although the client uses "always" language in her description of the pattern (which can sometimes denote a Same Old Story), in this case the client makes a clear connection to the pattern as explaining her worry, including her own role in it. On the video, there are no hints of 'stuckness' or hopelessness in the client's vocal tone or body language. Rather, she speaks with some distance and perspective, which further indicate that this is a Reflexive rather than Same Old Story.

There was no outcome x stage interaction for Reflexive Story, however, there was a stage effect wherein proportions were highest at early stage therapy (see above). Taken together, the outcome effect and stage effects suggest that Reflexive Storytelling is a Transitional process. Spending time reflecting early in therapy may help to increase the client and therapists' depth of understanding of intra- and interpersonal patterns. This may (for some clients) create space for exploring and experimenting with alternative understandings and action tendencies (Bryntwick et al. 2014).

Competing Plotlines. As an indicator of client ambivalence, the Competing Plotlines marker was of particular interest in this sample, given the high occurrence of ambivalent beliefs about worry among individuals with GAD, and the treatment condition's focus on resolving ambivalence about relinquishing worry (Westra, 2012). Over the course of therapy, recovered clients spent significantly more time expressing Competing Plotlines compared to unchanged clients (mean difference = 6.8%). This suggests that time spent processing ambivalence was facilitative of recovery in this sample.

The following example of a Competing Plotlines narrative was drawn from the first session of therapy for an unchanged client:

C: *To be honest, I think worrying, it's almost like my addiction. It's almost like a high, too, because you sort of get yourself psyched up about things. And as much as you don't want to do it, it gets you kind of revved up, and I think, you know I've been thinking a lot about it lately, and it's almost like an addiction.*
T: *Yeah*
C: *The sort of, you don't want to do it, but you enjoy the feeling.*
T: *Like there's a bit of a push and pull there. That sounds really important, because usually there are some pretty strong benefits to some of the things we do, right? Can you speak a little bit from that revved up place? What would that voice sort of say when it's getting revved up and excited by it?*
C: *Well I guess the thing is for me, too, I mean part of the worrying is always about um you know not getting things done, running out of time, not being able to get something done, not having it at the forefront because if I don't have it there it's going to fall off the agenda and it won't get done. So there's many reasons. And so staying revved up and getting those things done and checked off, thinking about them…I don't know, it's just this, it's kind of like a high, almost.*
T: *mm hmmm*
C: *It's just go go go go go go go, and it's sort of my way of being, and feeling that, if I just sort of let it go for a minute, it's feeling that, hmmm, not so much I'm a failure but feeling like I'm kind of lazy.*

These findings are consistent with previous research on CBT for GAD, notably that individuals with GAD may be reluctant to relinquish worry because they holds positive beliefs about worry's instrumental value and relationship to their identity, even while experiencing worry as problematic and distressing (Freeston et al., 1994). Recovered clients in this sample may have been better able to explore and integrate the discrepancy between their worry behavior and closely-held values and goals.

As previously mentioned in the discussion of descriptive results, Competing Plotlines was relatively common in the sample as a whole. Unchanged clients spent 8.2% of their therapy time expressing the Competing Plotlines process, which is considerably higher than the proportion observed for unchanged clients in Boritz et al.'s depression

sample (0.4%), and slightly higher than unchanged clients in Bryntwick et al.'s trauma sample (7%). This makes sense given that all clients purportedly received MI and CBT integrated with MI, and the treatment modality itself emphasized the exploration of ambivalence. Thus even though there was an expected effect of outcome on proportions of Competing Plotlines, these findings—when contextualized against previous NEPCS studies—suggest that not all ambivalence is productive in therapy.

This points to several possible future research directions. First, it may be fruitful to complete a qualitative investigation of the content of Competing Plotlines segments, and look for different themes between outcome groups. Coding procedures in this study did not specify that client ambivalence had to be about worry or worry-related topics in order to be coded as a Competing Plotline. It may be that recovered clients were more focused on exploring their worry-related ambivalence which helped to facilitate a reduction of worry symptoms, whereas unchanged clients expressed ambivalence about topics unrelated to anxiety and worry. A similar qualitative exploration of therapist interventions before or after Competing Plotlines segments could also shed light on how recovered clients were able to spend more time in the ambivalence process.

Second, it would be interesting to examine patterns of shifting around the Competing Plotlines marker. Ribeiro et al. (2014) conceptualize ambivalence as a process full of discomfort and anxiety because it occurs when change talk (emergent, non-dominant aspects of the self) creates discrepancy in the client's usual framework of understanding himself or herself. To alleviate this discomfort, clients shift quickly back to their status quo, problem-saturated narrative. Unchanged clients remain stuck in ambivalence, cycling between the emergence of novelty, discomfort, and returns to the

status quo to alleviate discomfort (Ribeiro et al., 2014). A future analysis of shifting patterns may reveal that unchanged clients showed a tendency to shift from Competing Plotlines into a Same Old Story, whereas recovered clients were able to stay in Competing Plotlines for a longer duration, or to shift from a Competing Plotline to another Transition or Change marker.

Unexpected Outcome. This change marker is coded when clients disclose new, adaptive ways of being, often including a comparison with old, problematic patterns. They may report new actions, emotional responses, or thought patterns in the context of concrete behaviors or events, accompanied by pride, surprise, delight, or excitement. Recovered clients shared more Unexpected Outcome stories (mean difference = 9.4%) compared to unchanged clients across all stages of therapy, reflecting the changes that these clients experienced in their daily life as therapy progressed.

There was no outcome x stage effect; unchanged clients had almost no Unexpected Outcome stories over the course of therapy (0.7%). In contrast, recovered clients articulated numerous Unexpected Outcome stories from the outset, and they increased in frequency from the early (7.5%) to middle (9.2%) to late (12.5%) stages. This is interesting given that Unexpected Outcome is a marker of concrete changes that have already been made. Bryntwick et al. (2014) found that Unexpected Outcome stories were extremely rare for trauma clients receiving EFT, until the late stage of therapy when there was a sharp increase for recovered clients only. In contrast, it appears that recovered clients in the present study's sample began experiencing and reporting concrete behavioral changes soon after entering therapy.

This finding may reflect baseline client readiness for change. Recovered clients may have been more ambivalent than unchanged clients at the start of therapy, who in turn—as mentioned in the discussion of Same Old Story results above—may have been in the pre-contemplation stage of change (Dozois et al., 2004). As a result, it makes sense that recovered clients' self-narratives included change talk as well as talk in favor of the status quo. Given the high proportions of Competing Plotlines throughout therapy, most of this change talk may have been expressed as part of an ambivalent process. However, it appears that some of the change talk was concrete rather than hypothetical; well-elaborated; and accompanied by positive affect rather than the tension inherent in ambivalence—in other words, it was expressed as part of an Unexpected Outcome Story.

Therapist responsiveness/MI experience may also help to explain the high proportions of Unexpected Outcome throughout therapy. MI involves supporting client agency, and MI therapists also need to be skilled at hearing subtle change talk (Westra, 2012). The following example is from a middle-stage session for client ER220, whose worry primarily centered around social concerns and meeting others' expectations:

C: *My friend, she's so negative in my life. And because I haven't called her, I feel like I should call her, and then when I see her I'm like* [cringing gesture with sharp intake of breath].
T: *Right.*
C: *Like I should have called her but I haven't. I haven't called her. And I mean she's texted me and everything, but…*
T: *Well, how were you able to not call her?*
C: *'Cause I think* [sigh}, *I think about what she did, and I feel like, I deserve better, and...*
T: *Wow, wait, that's important.*
C: *Yeah.*
T: *Can you say that again?*
C: [Smiling] *I deserve better.*
T: *Right.*
C: *And, I feel like if I deserve better she should be, that she should be the one calling me, but I would always be the one calling her.*

T: *Like usually in the past you would have been the one who, like, felt bad and so you would have contacted her and tried to smooth things over, and tried to please her, and so in this case this is a change for you.*
C: [Nodding, smiling]. *It's a big change.*

Of note, in this excerpt, the client expresses some lingering ambivalence about her novel behavior. The therapist chose to highlight the client's agency in the changed behavior (*'how were you able to not call her?'*) and the client responds by elaborating what the change means: she deserves better, which is a big change, worthy of a smile. It may be that the therapists of recovered clients were better at hearing, highlighting, helping to elaborate, and reinforcing their clients' change talk. In the context of a strong alliance, in which the therapist refrained from pushing the client towards change, prizing clients for even a subtle, minor Unexpected Outcome could have encouraged clients towards enacting concrete change, and then reporting more Unexpected Outcomes throughout therapy.

Discovery Story. One of the most striking findings overall was the difference in Discovery Story proportions between recovered and unchanged clients. Discovery Storytelling indicates novel, adaptive understanding of the self and meaning-making. There was a significant outcome x stage interaction at the late stage of therapy between recovered and unchanged clients. The Discovery Story marker did not occur among unchanged clients over the course of therapy (0%), whereas proportions of Discovery Story increased sharply from early (1.7%) and middle (3.8%) to late stage therapy (13.3%) for recovered clients. This suggests that recovered clients were able to reconceptualize their understanding of self, which may have facilitated a reduction in worry symptoms. For example, this is a Discovery Story excerpt from session 13 for a

recovered client whose worry and anxiety centered around feeling responsible for her mother:

C: *…like she always plays like the innocent card.*
T: *Yeah, and –you know—I sort of fell into that, I guess you're saying, because of course it makes sense, like it was too much to question, because that means, 'woah.' That would mean that she was not who I ever thought she was.*
C: *Yes.*
T: *But now…I guess...you're seeing it different, for what it is?*
C: *Yeah. Even, like, two years ago I used to argue with my dad and he'd be like 'your mom, she is not the most truthful person in the world.' And he doesn't want me to, see my mom in a negative light or anything, but when we were younger I took my mom's side, and I shut him out completely, and so, so, but I was always like 'no, you're crazy, there's no way, this is…like, you know, you just, you're just angry at my mom.'*
T: *Right.*
C: *And now I see, I'm like, wow I did. I did so much to try to, um,*
T: *to contain that, or try to hold onto it.*
C: *Yes, exactly. And I don't know if I was just trying to fool myself into thinking that my mom was perfect, or—yeah. Yes.*

These results are consistent with those of Boritz et al. (2013) who found higher proportions of Discovery Story overall among recovered clients in the depressed sample, and Bryntwick et al. (2014) who found higher proportions at the late stage of therapy among recovered clients in the trauma sample.

These cumulative findings highlight the importance of the Discovery Story as an indicator of change. In fact, Discovery Story may be the end product of self-narrative reconstruction, reflecting a long process of increased emotion processing, the narrative integration of diverse facets of experience, and meaning making (Angus & Greenberg, 2011). Gonçalves et al. (2009) have highlighted the importance of reconceptualization for long-term change. They write,

> "Reconceptualization allows a narrative to have structure (e.g., coherence, organization, and complexity) by the way it organizes the other emergent [expressions of change]. In our view, reconceptualization is crucial for the change process. In the construction of a new narrative it acts like a gravitational field that

> attracts and gives meaning to action, reflection, and protest [stories]…which act as internal validations that change is taking place" (p.13)

Reconceptualization (or novel understanding) is the key feature of a Discovery Story. It represents the new self-narrative thread onto which future adaptive experiences (such as Unexpected Outcome events) may be strung and made sense of, thus promoting long-term change.

In the following passage (from session 13 for a recovered client), the client weaves in and out of articulating novel understanding of herself (I accept myself, I know what I want, and I can go after that rather than what others thinks is best for me), and giving specific examples of how her behavior has changed (i.e., Unexpected Outcomes) because of that reconceptualization.

C: *And now it's like I have my moments and everything where I'm really scared about a job, but I feel like right now, even though I'm really scared I feel like I have, I'm findings options of what I want to do and everything, and I think I'm accepting myself more and I understand what I want, I understand what makes me feel happy and I don't want to ignore that anymore.*
T: *Wow.*
C *Just because of, like, other people or the pressure of people. I want to do something with my life and I know what I want to do.*
T: *So like you're not so worried about the judgment of others and what they expect you to do, and you're sort of saying 'this is what I want to do.'*
C: *Yeah.*
T: *That sounds so strong!*
C: *It is. And the other day I was talking to my mom, and actually my mom said something to me and maybe I'm also very sensitive but she said something to me, and I thought, well, she was saying that I wasn't doing anything to get a job, and I wasn't moving like (snaps fingers) just doing things, and so I actually, like I told her,*
T: *Wow.*
C: *I told her, 'Mom, I'm doing my best, and I have school all day, and I'm working and on top of that I'm graduating and everything, so you have to let things…you know…let me do things my way.'*
T: *Wow, so, in the past, that would have really spiked your anxiety, hearing your mom say something like that.*
C: *You know what, yeah, and instead of me…like…in the past I would let it really, like, get me down. And, uh, it would just affect me and I wouldn't say anything,*

and now it's like I told her, I told her the truth, like I'm doing my best and you guys just have to understand. And actually I'm going backpacking with my best friend, and it's like, I decided *to do it, and I wasn't sure if my parents would be like, 'oh maybe you should stay here, and find a job,' but I was like no, it's something that I want to do, it's my choice, I'm going to pay for it, so either you like it or not, right?*

T: *You sound so strong!*

C: Yes. [Big smile]. *I think so.*

T: *And you're being not only more assertive with your mom; before you said it would have affected you so much, and you wouldn't have said anything either, and now it doesn't affect you as much, and you're saying how you truly feel.*

C: *Yeah! Yeah, how I truly feel.*

The Discovery Story thread thus appears to elicit, organize and give meaning to the concrete changes (note, also, the therapist's role in highlighting the change, which invites the client to elaborate). An interesting direction for future research applications of the NEPCS might involve analyzing whether Discovery Story predicts maintenance of therapeutic gains among clients who were classified as recovered at therapy termination.

No Client Marker (NCM). In general, NCM is coded whenever a therapist has more than 50% of the "airtime" in a segment, but it also applies when therapist-client conversation content includes chit-chat about subjects not related to therapy (e.g., at the beginning of a session) or scheduling. There was a trend towards a higher proportion of NCM for unchanged vs. recovered clients. This finding indicates that unchanged clients spent less time talking in therapy compared to recovered clients. In and of itself, however, the finding reveals little about productive narrative-emotion process, and may instead reflect overall client engagement, therapist style, or some other aspect of the dyad's interpersonal process.

Although there was no outcome x stage interaction, descriptive analyses revealed an interesting pattern wherein the percentage of NCM was very consistent across all three stages for unchanged clients (30-33%). In contrast, the percentage of NCM varied from

stage to stage for recovered clients. It was the lowest at early stage therapy (13.7%), and higher at middle (25.7%) and late stage therapy (20%). Theoretically, proportions of NCM should have been lower during the MI phase of therapy, because MI is based on client-centered principles, including egalitarian collaboration between therapist and client (Miller & Rollnick, 2002), whereas CBT is more directive and didactic. This (non-significant) outcome x stage pattern suggests that therapists of recovered clients may have been more skilled, flexible and adherent in their delivery of MI and CBT. In contrast, therapists of unchanged clients may have had difficulty delivering these treatment modalities; given the higher proportions of NCM for the unchanged outcome group and the directive nature of CBT, it would appear that they may have been less skilled at delivering the MI phase of treatment. It will be interesting to examine adherence ratings for this sample, once they are available from the main trial's investigators.

It is important to note that in this sample, NCM was also coded when one client (EC205, unchanged) was engaged in progressive muscle relaxation (PMR) and breathing exercises guided by the therapist. These exercises accounted for 29% (35 minutes) of her late-stage therapy sessions, and thus may have skewed the results for NCM. On the other hand, we elected not to substitute a different session for coding because these activities were part of the manualized CBT treatment, and therefore an accurate reflection of the therapy under investigation. All six therapist-client dyads made some reference to doing PMR at home between sessions. The fact that EC205's therapist decided to devote in-session time to relaxation training late in the course of therapy may even reflect her client's unchanged status. For example, she may have prioritized it because the client's

anxiety symptoms remained severe towards the end of treatment, and she sensed little progress was being made through more narrative-based tasks such as cognitive restructuring exercises.

Proportions of NEPCS Subgroups in relation to Therapeutic Outcome

The NEPCS subgroups were initially derived from Angus and Greenberg's (2011) clinically-based identification of unproductive and productive narrative and emotion processes in therapy (i.e., Problem and Change markers). Transition markers were later proposed as a distinct subgroup, representing processes that appeared to help clients move from Problem-saturated self-narratives, towards self-narratives expressing adaptive change (Bryntwick et al., 2014).

As predicted, unchanged clients had higher proportions of Problem markers overall compared to recovered clients. Problem markers include Same Old Story, Empty Story, Unstoried Emotion, and Superficial Story, which indicate dysregulated emotional states, lack of integration of emotion with narrative context, overly rigid and maladaptive self-narratives, and narrative content that remains abstract, impersonal, and lacks meaning. These features are thought to reflect narrative-emotion processes that may help to maintain presenting problems, and that are unproductive in therapy. The finding that unchanged clients spent 19.7% more of their therapy time in Problem Marker processes is consistent with the findings of Boritz et al. (2014) and Bryntwick et al. (2014). Together, these findings lend considerable empirical support to Angus and Greenberg's (2011) original categorization of these Problem processes as unproductive in therapy.

Also consistent with predictions, recovered clients had higher proportions of Transition markers overall, compared to unchanged clients. The stage effect on

Transition markers discussed above provides empirical support for the validity of this subgroup as distinct from Change markers. This distinction is further supported by the outcome effect. Together they indicate that Transition markers are *potentially* productive processes that occur with greater frequency at the beginning of therapy, and that are associated with change (i.e., recovered status) over the entire course of therapy. This interpretation is also consistent with the finding that recovered clients had higher proportions of Change markers compared to unchanged clients at the late stage of therapy only.

It may be that Transition processes help to catalyze change by destabilizing dominant, monological narratives in a way that opens them up to incorporate additional facets of experience and ways of understanding the self. These, in turn, are eventually (i.e., in late stage therapy) expressed as Change markers. An intriguing area for future research will be to examine patterns of shifting between Problem, Transition, and Change markers. Unchanged clients, for example, may show a tendency to shift out of Transition markers back to Problem markers, whereas recovered clients may tend to shift between Transition markers or from Transition to Change markers.

Another interesting future research question concerns the duration of time that clients remain in Transition processes. The Transition markers, as a group, may be characterized as *demanding* or *uncomfortable* for the client. There is inherent tension and confusion in the ambivalence marked by Competing Plotline. An Experiential Story induces re-entry into potentially painful memories. The Inchoate Story process requires a willingness to move towards (and search for symbolization of) murky emergent experience. Finally, Reflexive Storytelling requires sustained focus on the self and

distressing, problematic patterns. Future studies could bridge research on client individual differences, and psychotherapy process. It would be interesting, for example, to apply the NEPCS to sessions from a psychotherapy trial that had included baseline measures of traits like tolerance of uncertainty, openness to experience, or mindfulness, and then examine associations between those traits and Transition marker shifting patterns.

Limitations

The findings discussed above must be considered in light of several limitations. First, as with the majority of psychotherapy process research, this study was based on secondary data. As such, our sample was less representative of the general GAD clinical population as the sample selected by the primary clinical trial researchers (i.e., Westra et al., 2014), and was not representative of the trial's sample. Furthermore, only six sessions were coded per client out of a total therapy course of 15 sessions. As a result, statistically significant findings may not generalize to other recovered and unchanged clients, and may not reflect an overall course of MI-CBT for GAD. On the other hand, as a secondary analysis the present study represents an efficient use of research resources and has opened the door to other potential process-outcome collaboration studies. An additional limitation is that we did not adjust alpha levels for multiple comparisons given the exploratory nature of the study and the small sample size, so it is possible that some of the findings are type I errors. On the other hand—assuming no type I errors—it is encouraging that we were able to detect so many effects in spite of the reduced power due to the small sample. There was considerable consistency between our findings and those of Bryntwick et al. (2014) and Boritz et al. (2013), which suggests that these findings were not spurious.

The Findings in Context: Future Research Directions

This study's primary goal was to elucidate in-session narrative-emotion processes that are associated with recovery from GAD for clients receiving adjunctive MI and CBT. The findings point to a number of future research directions that would help to further progress towards that goal. First, a number of narrative-emotion processes predicted recovery in this sample. A next step may be to examine whether any of these processes are a specific, additive mechanism of change for MI in the treatment of GAD. In order to do so, the clearest next research step is to extend this study, using six clients from Westra et al.'s (2014) XX-CBT condition. This would permit testing for outcome x treatment and outcome x stage x treatment interactions, which may further clarify whether MI is effective for GAD through the mechanism of working with client ambivalence.

Further exploration of the Competing Plotlines marker just in this (MI-CBT) sample may also help to clarify how or why working with ambivalence facilitates recovery. One possibility is to conduct qualitative analyses of the content of Competing Plotlines narratives, looking for possible thematic differences between outcome groups. A second direction is to examine therapist contributions that may facilitate remaining in the Competing Plotlines process, and/or shifting out of it into another Transition or Change marker. Examination of shifting patterns between marker subgroups, and exploration of therapist contributions, are important next steps for all NEPCS studies.

From a broader perspective, the present study was the first to apply the NEPCS to a sample of clients receiving therapy for anxiety, and to the MI and CBT therapy modalities. The findings lend considerable empirical support to the NEPCS as a reliable and valid measure of narrative-emotion processes in therapy that increasingly appear to

be trans-diagnostic and pan-theoretical. This suggests that further applications of the NEPCS to other clinical populations and treatments are worthwhile. When the present study's findings are considered alongside those of Boritz et al. (2013) and Bryntwick et al (2014), there is some convergence as to the narrative-emotion processes that predict recovery from depression, complex trauma, and generalized anxiety. A current priority in psychotherapy research is the identification of common principles of change, in order to promote parsimony in theories of psychotherapy and greater efficiency and flexibility in the delivery of treatment based on empirically-supported processes/factors (Laurenceau, Hayes, & Feldman, 2007). Beyond simply applying the NEPCS to larger samples and more diagnostic populations and treatment types, it may be fruitful to bridge NEPCS studies with other domains of psychotherapy process research (e.g., client factors, interpersonal process/alliance factors). One possible direction indicated by the present findings concerns exploring the association between client individual differences (e.g., intolerance of uncertainty and openness to experience) and Transition marker patterns.

At the same time, there are some preliminary indications of important differences between the three samples in terms of the narrative-emotion processing patterns that predominate the working phase of therapy and predict outcome. For example, the Inchoate Story process appears to be more relevant for recovery from depression and/or for a successful course of experiential therapy, than it is for recovery from trauma, or from GAD through MI-CBT. The Unstoried Emotion process may be a particularly important indicator of unproductive process in trauma therapy (Carpenter et al., 2014), although this finding was not replicated in a larger sample (Bryntwick et al., 2014). The early disclosure and elaboration of Unexpected Outcome stories appears to be important

for therapy based on concrete behavioral changes (e.g., CBT). These distinctions indicate that the NEPCS has promising clinical sensitivity and could help to elucidate disorder- or treatment-specific mediators of change. Future applications to larger samples and more diverse diagnostic populations and therapy modalities is therefore important not just for identifying common treatment principles, but also to help verify the theoretical models underlying current disorder-specific empirically-supported treatments, and to ultimately improve their efficacy (Kazdin, 2008).

Conclusion

The present study's findings contribute to the ongoing development of the NEPCS as a reliable, valid tool for psychotherapy process research. Specifically, it extended the NEPCS' validity by applying it to a sample of clients receiving MI and CBT for GAD. We found further support that it is both a measure of pan-theoretical narrative emotion processes in psychotherapy; and a sensitive measure of processes that may differ in their relevance for certain treatment types/disorders. Another important contribution was empirical validation of at least one new narrative-emotion process marker (Reflexive Story), and of the Transition Markers subgroup as distinct from the Change Markers subgroup.

This study made a preliminary contribution towards elucidating the narrative and emotion processes that are associated with recovery from GAD. The Empty Story and Superficial Story processes appear to be more common among unchanged clients; clients whose narratives tend to be over-generalized, de-personalized, and lack emotional expression or inner experience reported high levels of worry at therapy termination. This supports theoretical conceptualizations that worry functions as a means of avoiding inner

experience, via over-generalization and abstraction. Recovered clients spent more time in Reflexive and Competing Plotlines processes. The latter finding in particular suggests that MI may work by facilitating the exploration and resolution of ambivalence about change. In order to demonstrate that this is a mechanism of change specific to MI, an important next step is to extend of the present study to Westra et al.'s (2014) XX-CBT treatment condition. The present findings also suggest that processing ambivalence may have promoted new concrete behavior changes that clients reported in therapy. Perhaps of greater importance, recovered clients evidenced reconceptualized understandings of the self and anxiety. The latter may provide an organizing framework for maintaining and furthering change in the form of new, adaptive self-narratives.

Despite possible limited generalizability due to small sample size, overall these findings suggest that further research applications of the NEPCS are merited: within the clinical trial from which the present study's sample was drawn; and to a broader range of treatment populations. Both are important potential avenues for identifying narrative-emotions processes that may be specific and/or common factors contributing to therapeutic change.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Angus, L. (2012). Toward an integrative understanding of narrative and emotion processes in emotion-focused therapy of depression: Implications for theory, research and practice. *Psychotherapy Research, 22,* 367-380. DOI:10.1080/10503307.2012.683988

Angus, L. & Greenberg, L. (2011). *Working with narrative and emotion in Emotion-Focused Therapy: Changing stories, healing lives.* Washington, DC: American Psychological Association.

Angus, L. E., & McLeod, J. (2004). Toward an integrative framework for the understanding of the role of narrative in the psychotherapy process. In L. E. Angus, & J. McLeod (Eds.), *The handbook of narrative and psychotherapy: Practice, theory, and research* (pp. 367–374). Thousand Oaks, CA: Sage.

Aust, S., Härtwig, E. A., Heuser, I., & Bajbouj, M. (2013). The role of early emotional neglect in alexithymia. *Psychological Trauma: Theory, Research, Practice, and Policy, 5*(3), 225-232. DOI:10.1037/a0027314

Aviram, A., & Westra, H. (2011). The impact of motivational interviewing on resistance in cognitive behavioral therapy for generalized anxiety disorder. *Psychotherapy Research, 21,* 698-708. DOI:10.1080/10503307.2011.610832

Behar, E., DiMarco, I.D., Hekler, E.B., Mohlman, J., & Staples, A.M. (2009). Current theoretical models of generalized anxiety disorder (GAD): Conceptual review and

treatment implications. *Journal of Anxiety Disorders, 23,* 1011-1023. DOI:10.1016/j.janxdis.2009.07.006

Beutler, L. E., Moliero, C. M., & Talebi, H. (2002). Resistance. *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients.* (pp. 129-143) Oxford University Press, New York, NY.

Boritz, T. (2012) Narrative and Emotion Integration in Psychotherapy: The Development and Application of the Narrative Emotion Process Coding System. Unpublished doctoral dissertation, York University.

Boritz, T., Angus, L., Monette, G., Hollis-Walker, L., Warwar, S. (2011). Narrative and emotion integration in psychotherapy: Investigating the relationship between autobiographical memory specificity and expressed emotional arousal in brief emotion-focused and client-centered treatments of depression. *Psychotherapy Research, 21,* 16-26. DOI:10.1080/10503307.2010.504240

Boritz, T., Bryntwick, E., Angus, L., Greenberg, L., & Carpenter, N. (2012). *The narrative and emotion process coding system.* Unpublished manual, Department of Psychology, York University, Toronto, ON.

Boritz, T.Z., Bryntwick, E., Angus, L, Greenberg, L.S., & Constantino, M.J. (2013). Narrative and emotion process in psychotherapy: An empirical test of the Narrative-Emotion Process Coding System (NEPCS), Psychotherapy Research. DOI:10.1080/10503307.2013.851426

Borkovec, T.D. (1994) The nature, functions, and origins of worry. In G.C. Davey & F. Tallis (Eds.), *Worrying: Perspectives on theory, assessment, and treatment* (pp. 5-33). Chichester, UK: Wiley.

Borkovec, T.D., & Inz, J. (1990). The nature of worry in generalized anxiety disorder: A predominance of thought activity. *Behavior Research and Therapy, 28,* 153-158.

Borkovec, T. D., Ray, W. J., & Stöber, J. (1998). Worry: A cognitive phenomenon intimately linked to affective, physiological, and interpersonal behavioral processes. *Cognitive Therapy and Research, 22*(6), 561-576. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/619341304?accountid=15182

Borkovec, T. D., & Roemer, L. (1995). Perceived functions of worry among generalized anxiety disorder subjects: distraction from more emotionally distressing topics? *Journal of Behavior Therapy and Experimental Psychiatry, 26,* 25–30. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/618683120?accountid=15182

Borkovec, T. D., & Ruscio, A. M. (2001). Psychotherapy for generalized anxiety disorder. *The Journal of Clinical Psychiatry, 62,* 37–42. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/619659349?accountid=15182

Borkovec, T. D., Alcaine, O., & Behar, E. (2004). Avoidance theory of worry and generalized anxiety disorder. In R. G. Heimberg, C. L. Turk, & D. S. Mennin (Eds.), *Generalized anxiety disorder: Advances in research and practice* (pp. 77–108). New York: Guilford Press.

Brown, T.A., Antony, M.A., & Barlow, D.H. (1992). Psychometric properties of the Penn State Worry Questionnaire in a clinical anxiety disorder sample. *Behavior*

Research and Therapy, 30, 33-37. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/618107442?accountid=15182

Bruner, J. (1986). *Actual minds, possible worlds.* Cambridge, MA: Harvard University Press.

Bruner, J. S. (2004). The narrative creation of self. In L. E. Angus, & J. McLeod (Eds.), *The handbook of narrative and psychotherapy: Practice, theory, and research* (pp. 3–18). Thousand Oaks, CA: Sage.

Bryntwick, E., Angus, L., Paivio, S., Carpenter, N., & Macaulay, C. (2014, July). Investigating narrative and emotion integration in emotion-focused therapy for complex trauma: A process-outcome analysis. Paper presented at the meeting of the Society for Psychotherapy Research international annual meeting, Copenhagen.

Burke, M., and Mathews, A. (1992). Autobiographical memory and clinical anxiety. *Cognition and Emotion, 6,* 23–35. DOI:10.1080/02699939208411056

Carpenter, N., Angus, L., Paivio, S., & Bryntwick, E. (2014). *A moment-by-moment approach to assessing narrative and emotion integration in emotion-focused therapy for trauma: The narrative emotion process coding system.* Paper presented at the meeting of the Society for Psychotherapy Research international annual meeting, Copenhagen.

Chen, Y., McAnally, H. M., & Reese, E. (2013). Development in the organization of episodic memories in middle childhood and adolescence. *Frontiers in Behavioral Neuroscience, 7* Retrieved from

http://search.proquest.com.ezproxy.library.yorku.ca/docview/1435853228?accountid=15182

Coles, M.E., & Heimburg, R.G. (2002). Memory biases in the anxiety disorders: Current status. *Clinical Psychology Review, 22*, 587-627. DOI:10.1016/S0272-7358(01)00113-1

Coté, G., & Barlow, D.H. (1992). Combined treatment for generalized anxiety disorder: Albany comparative treatment study of generalized anxiety disorder (unpublished manual). Albany, NY: University at Albany, State University of New York.

Covin, R., Ouimet, A. J., Seeds, P. M., & Dozois, D. J. A. (2008). A meta-analysis of CBT for pathological worry among clients with GAD. *Journal of Anxiety Disorders, 22*(1), 108-116. DOI:10.1016/j.janxdis.2007.01.002

Craske, M.G., & Barlow, D.H. (2006). *Mastery of your anxiety and worry, 2nd ed. (Workbook).* New York, NY: Oxford University Press.

Damasio, A. (1999). *The feeling of what happens.* New York, NY: Harcourt Brace.

Daniel, S.F. (2009). The developmental roots of narrative expression in therapy: Contributions from attachment theory and research. *Psychotherapy: Theory, Research, Practice, Training, 46,* 301-316. DOI:10.1037/a0016082

Dear, B.F., Titov, N., Sunderland, M., McMillan, D., Anderson, T., Lorian, C., & Robinson, E. (2011). Psychometric comparison of the Generalized Anxiety Disorder Scale-7 and the Penn State Worry Questionnaire for measuring response during treatment of generalized anxiety disorder. *Cognitive Behavior Therapy, 40,* 216-227. DOI:10.1080/16506073.2011.582138

Debeer, E., Raes, F., Williams, J.M.G., & Hermans, D. (2011). Context-dependent activation of reduced autobiographical memory specificity as an avoidant coping style. *Emotion, 11,* 1500-1506. DOI:10.1037/10024535

Dozois, D. J. A., Westra, H. A., Collins, K. A., Fung, T. S., & Garry, J. K. F. (2004). Stages of change in anxiety: Psychometric properties of the University of Rhode Island Change Assessment Scale. *Behavior Research and Therapy, 42,* 711–729. DOI:10.1016/S0005-7967(3)00193-1

Dugas, M. J., Ladouceur, R., Léger, E., Freeston, M., Langlois, F., Provencher, M. D., et al. (2003). Group cognitive-behavioral therapy for generalized anxiety disorder: Treatment outcome and long-term follow-up. *Journal of Consulting and Clinical Psychology*, *71*, 821–825. DOI:10.1037/0022-006X.71.4.821

Dugas, M. J., & Robichaud, M. (2007). *Cognitive-behavioral treatment for generalized anxiety disorder: From science to practice.* New York: Routledge.

Engle, D.E., & Arkowitz, H. (2006). *Ambivalence in psychotherapy: Facilitating readiness to change*. New York, NY: Guilford Press.

First, M.B., Spitzer, R.L., Gibbon, M., and Williams, J.B.W. (2002). Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition. (SCID-I/P) New York: Biometrics Research, New York State Psychiatric Institute.

Fisher, P. L. (2006). The efficacy of psychological treatments for generalized anxiety disorder. In: G. C. L. Davey, & A. Wells (Eds.), Worry and its psychological disorders: theory, assessment and treatment (pp. 359–377). New York: John Wiley and Sons.

Foa, E.B., & Kozak, M.J. (1986). Emotional processing of fear: Exposure to corrective

information. *Psychological Bulletin, 99,* 20-35. DOI:doi.org/10.1037/0033-2909.99.1.20

Frank, J.D. & Frank, J.B. (1991). A Conceptual Framework for Psychotherapy. In *Persuasion and Healing* (pp. 21-51). Baltimore, MD: John Hopkins University Press.

Freeston, M.H., Dugas, M.J., & Ladouceur, R. (1996). Thoughts, images, worry, and anxiety. *Cognitive Therapy and Research, 20,* 263-273. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/618793810?accountid=1518

Freeston, M. H., Rheaume, J., Letarte, H., Dugas, M. J., & Ladouceur, R. (1994). Why do people worry? *Personality and Individual Differences, 17, 791*–802. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/618649055?accountid=15182

Gonçalves, M., Matos, M., & Santos, A. (2009). Narrative therapies and the nature of "unique outcomes" in the construction of change. *Journal of Constructivist Psychology*, 22, 1 - 23. DOI:10.1080/10720530802500748

Gonçalves, M., Ribeiro, P., Mendes, I., Matos, M., & Santos, A. (2011). Tracking Novelties in psychotherapy process research: The Innovative Moments Coding System. Psychotherapy Research, 21, 497-509. DOI:10.180/10503307.2011.560207

Gould, R. A., Otto, M. W., Pollack, M. H., & Yap, L. (1997). Cognitive behavioral and phar- macological treatment of generalized anxiety disorder: A preliminary meta-analysis. *Behavior Therapy, 28,* 285–305. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/619211372?accountid

=15182

Gould, R. A., Safren, S. A., O' Neill Washington, D., & Otto, M. W. (2004). A meta-analytic review of cognitive-behavioral treatments. In R. G. Heimberg, C. L. Turk, & D. S. Mennin (Eds.), Generalized anxiety disorder: Advances in research and practice. New York: The Guilford Press.

Greenberg, L., & Pascual-Leone, J. (1995). A dialectical constructivist approach to experiential change. In R. Neimeyer & M. Mahoney (Eds.), *Constructivism in psychotherapy* (pp. 169-194). Washington, DC: American Psychological Association.

Greenberg, L., & Pascual-Leone, J. (2001). A dialectical constructivist view of the creation of personal meaning. *Journal of Constructivist Psychology, 14,* 165-186. DOI:10.1080/10720530151143539

Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. Psychological Bulletin, 126, 5, 748-769. DOI:10.1037//0033-2909.126.5.748

Habermas, T., & de Silveira, C. (200). The development of global coherence in life narratives across adolescence: Temporal, causal, and thematic aspects. *Developmental Psychology, 44,* 707-721. DOI:10.1037/0012-1649.44.3.707

Hanrahan, F., Field, A.P., Jones, F.W., & Davey, G.C.L. (2013). A meta-analysis of cognitive therapy for worry in generalized anxiety disorder. *Clinical Psychology Review, 33,* 120-132. DOI:10.1016/j.cpr.2012.10.008

Hayes, A. M., Beck, J. G., & Yasinski, C. (2012). A cognitive behavioral perspective on corrective experiences. In Castonguay, Louis G. (Ed); Hill, Clara E. (Ed), (2012).

Transformation in psychotherapy: Corrective experiences across cognitive behavioral, humanistic, and psychodynamic approaches, (pp. 69-83). Washington, DC, US: American Psychological Association, xiii, 390 pp. DOI:10.1037/13747-005

Hettema, J., Steele, J., & Miller, W. R. (2005). Motivational interviewing. *Annual Review of Clinical Psychology, 1*(1), 91-111. DOI:10.1146/annurev.clinpsy.1.102803.143833

Higgins, E.T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94,* 319-340. DOI:10.1037/0033-295X.94.3.319

Hill, C., & Lambert, M.J. (2004). Methodological issues in studying psychotherapy processes and outcomes. In M.J. Lambert (Ed.), Bergin and Garfield's handbook of psychotherapy and behavior change (pp. 84□135). New York, NY: Wiley.

Hoffman, D. L., Dukes, E. M., & Wittchen, H. (2008). Human and economic burden of generalized anxiety disorder. *Depression and Anxiety, 25*(1), 72-90. DOI:10.1002/da.20257

Jacobson, N. S. & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59,* 12-19. DOI:10.1037//0022-006X.59.1.12

Joukamaa, M., Luutonen, S., Von Reventlow, H., Patterson, P., Karlsson, H., & Salokangas, R. K. R. (2008). Alexithymia and childhood abuse among patients attending primary and psychiatric care: Results of the RADEP study. *Psychosomatics: Journal of Consultation and Liaison Psychiatry, 49*(4), 317-325. DOI:10.1176/appi.psy.49.4.317

Kessler, R., Berglund, P., Demler, O., Jin, R., Merikangas, K., &Walters, E. (2005a). Lifetime prevalence and age of onset distributions of DSM- IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62,* 593–602.

Kessler, R., Chiu, W., Demler, O., Merikangas, K., & Walters, E. (2005b). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62,* 617-627.

Kroenke, K., Spitzer, R. L., Williams, J. B., Monahan, P. O., & Lowe, B. (2007). Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Annals of internal medicine*, *146*(5), 317-325.

Laurenceau, J., Hayes, A. M., & Feldman, G. C. (2007). Some methodological and statistical issues in the study of change processes in psychotherapy. *Clinical Psychology Review, 27*(6), 682-695. DOI:10.1016/j.cpr.2007.01.007

Lombardi, D. R., Button, M. L., & Westra, H. A. (2014). Measuring motivation: Change talk and counter-change talk in cognitive behavioral therapy for generalized anxiety. *Cognitive Behavior Therapy, 43,* 12-21. DOI:10.1080/16506073.2013.846400

McAdams, D., & Janis, L. (2004). Narrative identity and narrative therapy. In L. Angus & J. McLeod (Eds.), *Handbook of narrative and psychotherapy: Practice, theory and research* (pp. 159-175). Thousand Oaks, CA: Sage.

McLean, K., Pasupathi, M., & Pals, J.L. (2007). Selves creating stories creating selves: A process model of self-development. *Personality and Social Psychology Review, 11,* 262-278. DOI: 10.1177/1088868307301034

Mennin, D.S., Heimberg, R. G., & Turk, C. L. (2004). Clinical presentation and diagnostic features. In R. G. Heimberg, C. L. Turk, & D. S. Mennin (Eds.), *Generalized anxiety disorder: Advances in research and practice* (pp. 3-28). New York: Guilford Press.

Mennin, D. S., Heimberg, R. G., Turk, C. L., & Fresco, D. M. (2005). Preliminary evidence for an emotion dysregulation model of generalized anxiety disorder. *Behavior Research and Therapy, 43*, 1281-1310. DOI:10.1016/j.brat.2004.08.008

Mennin, D. S., Holaway, R. M., Fresco, D. M., Moore, M. T., & Heimberg, R. G. (2007). Delineating components of emotion and its dysregulation in anxiety and mood psychopathology. Behavior Therapy, 38, 284–302. DOI:10.1016/j.beth.2006.09.001

Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the penn state worry questionnaire. *Behavior Research and Therapy, 28*, 487-495. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/617929770?accountid=15182

Miller, W.R. (1983). Motivational interviewing with problem drinkers. *Behavioral Psychotherapy, 11*, 147-172. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/616843803?accountid=15182

Miller, W.R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change* (2nd ed.). New York, NY: Guilford Press.

Miller, W.R., & Rose, G.S. (2009). Toward a theory of motivational interviewing. *American Psychologist, 64,* 527-537. DOI:10.1037/a0016830

Missirlian, T., Toukmanian, D., Warwar, S., & Greenberg, L. (2005). Emotional arousal, client perceptual processing, and the working alliance in experiential psychotherapy for depression. *Journal of Consulting and Clinical Psychology, 73,* 861-871. DOI:10.1037/0022-006X.73.5.861

Mowrer, O.H. (1947). On the dual nature of learning: A re-interpretation of "conditioning" and "problem-solving." *Harvard Educational Review, 17,* 102-148. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/615198313?accountid=15182

Nelson, K., & Fivush, R. (2004). The emergence of autobiographical memory: A social cultural developmental theory.*Psychological Review, 111*(2), 486-511. DOI:10.1037/0033-295X.111.2.486

Olatunji, B. O., Broman-Fulks, J., Bergman, S. M., Green, B. A., & Zlomke, K. R. (2010a). A taxometric investigation of the latent structure of worry: Dimensionality and associations with depression, anxiety, and stress. *Behavior Therapy, 41(2),* 212-228. DOI:10.1016/j.beth.2009.03.001

Olatunji, B.O., Moretz, M.W., & Zlomke, K.R. (2010b). Linking cognitive avoidance and GAD symptoms: the mediating role of fear of emotion. *Behavior Research and Therapy, 48,* 435-441. DOI:10.1016/j.brat.2009.11.014

Olatunji, B.O., Cisler, J.M., & Deacon, B.J. (2010c). Efficacy of cognitive behavioral therapy for anxiety disorders: A review of meta-analytic findings. *Psychiatric Clinics of North America, 33,* 557-577. DOI:10.1016/j.psc.2010.04.002

Paivio, A., & Marschark, M. (1991). Integrative processing of concrete and abstract sentences. In A. Paivio (Ed.), *Images in the mind: The evolution of a theory* (pp. 134-154). New York: Harvester Wheatsheaf.

Paivio, S. C., & McCulloch, C. R. (2004). Alexithymia as a mediator between childhood trauma and self-injurious behaviors. *Child Abuse & Neglect, 28*(3), 339-354. DOI:10.1016/j.chiabu.2003.11.018

Paivio, S. C., & Pascual-Leone, A. (2010). *Emotion-focused therapy for complex trauma: An integrative approach*. Washington, DC, US: American Psychological Association.

Pos, A., Greenberg, L., Goldman, R., & Korman, L. (2003). Emotional processing during experiential treatment of depression. *Journal of Consulting and Clinical Psychology, 71,* 1007-1016. DOI:10.1037/0022-006X.71.6.1007

Pos, A.E., Greenberg, L., & Elliott, R., (2008). Experiential therapy. In J. Lebow (Ed). *Twenty-First Century Psychotherapies.* (pp 80-122). NY: Wiley.

Pos, A. E., Greenberg, L. S., & Warwar, S. H. (2009). Testing a model of change in the experiential treatment of depression. *Journal of Consulting and Clinical Psychology, 77*, 1055-1066. DOI:10.1037/a0017059

Raes, F., Hermans, D., de Decker, A., Eelen, P., & Williams, J. M. (2003). Autobiographical memory specificity and affect regulation: An experimental approach. *Emotion, 3*(2), 201-206. DOI:10.1037/1528-3542.3.2.201

Revicki, D.A., Travers, K., Wyrwich, K.W., Svedsater, H., Locklear, J., Mattera, M.S.,…Montgomery, S. (2012). Humanistic and economic burden of generalized anxiety disorder in North America and Europe. *Journal of Affective Disorders, 140,* 103-112. DOI:10.1016/j.jad.2011.11.014

Ribeiro, A. P., & Gonçalves, M. M. (2010). Commentary: Innovation and stability within the dialogical self: The centrality of ambivalence. *Culture & Psychology, 16* (1), 116–126. DOI:10.1177/1354067X09353211

Ribeiro, A.P., Mendes, I., Stiles, W.B., Angus, L., Sousa, I., & Gonçalves, M. (2014). Ambivalence in emotion-focused therapy for depression: The maintenance of problematically dominant self-narratives. *Psychotherapy Research.* DOI:10.1080/10503307.2013.879620

Roemer, L., & Orsillo, S. M. (2002). Expanding our conceptualization of and treatment for generalized anxiety disorder: integrating mindfulness/acceptance-based approaches with existing cognitive behavioral models. *Clinical Psychology: Science and Practice, 9,* 54–68. DOI:10.1093/clipsy/9.1.54

Roemer, L., Salters, K., Raffa, S. D., & Orsillo, S. M. (2005). Fear and avoidance of internal experiences in GAD: Preliminary tests of a conceptual model. *Cognitive Therapy and Research, 29*(1), 71-88. DOI:10.1007/s10608-005-1650-2

Rogers, C. (1961). *On becoming a person.* Oxford, UK: Houghton Mifflin.

Roy-Byrne, P., Davidson, K. W., Kessler, R. C., Asmundson, G. J. G., Goodwin, R. D., Kubzansky, L., . . . Stein, M. B. (2008). Anxiety disorders and comorbid medical illness. *General Hospital Psychiatry, 30*(3), 208-225. DOI:10.1016/j.genhosppsych.2007.12.006

Stern, D. (1985). *The interpersonal world of the infant*. Basic Books.

Stöber, J., Tepperwien, S., & Staak, M. (2000). Worrying leads to reduced concreteness of problem elaborations: Evidence for the avoidance theory of worry. *Anxiety, Stress, and Coping, 13,* 217-227.

Szkodny, L.E., Newman, M.G., & Goldfried, M.R. (2014). Clinical experiences in conducting empirically supported treatments for generalized anxiety disorder. *Behavior Therapy, 45,* 7-20. DOI:10.1016/j.beth.2013.09.009

Turk, C.L., & Mennin, D.S. (2011). Phenomenology of generalized anxiety disorder. *Psychiatric Annals, 41,* 72-78. DOI:10.1016/j.beth.2013.09.009

Wells, A. (1995). Meta-cognition and worry: a cognitive model of generalized anxiety disorder. *Behavioural and Cognitive Psychotherapy, 23,* 301–320. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/619342280?accountid=15182

Wells, A. (2004). A cognitive model of GAD: metacognitions and pathological worry. In: R. G. Heimberg, C. L. Turk, & D. S. Mennin (Eds.), *Generalized anxiety disorder:*

Advances in research and practice (pp. 164–186). New York: Guilford.

Wessel, I., Meeren, M., Peeters, F., Arntz, A., and Merckelbach, H. (2001). Correlates of autobiographical memory specificity: the role of depression, anxiety and childhood trauma. *Behavior Research and Therapy, 39,* 409–421. DOI:10.1016/S0005-7967(00) 00011- 5

Westen, D., & Morrison, K. (2001). A multidimensional meta-analysis of treatments for depression, panic, and generalized anxiety disorder: An empirical examination of

the status of empirically supported therapies. *Journal of Consulting and Clinical Psychology, 69,* 875-899. DOI:10.1037//0022-006X.69.6.875

Westra, H.A. (2004). Managing resistance in cognitive behavioral therapy: The Application of motivation interviewing in mixed anxiety and depression. *Cognitive Behavior Therapy, 33,* 161-175. DOI:10.1080/16506070410026426

Westra, H. A. (2012). *Motivational Interviewing in the Treatment of Anxiety.* New York: Guilford Press.

Westra, H. A., & Dozois, D. J. A. (2006). Preparing clients for cognitive behavioral therapy: A randomized pilot study of motivational interviewing for anxiety. *Cognitive Therapy and Research, 30,* 481-498. DOI:10.1007/s10608-006-9016-y

Westra, H. A., Arkowitz, H., & Dozois, D. J. A. (2009). Adding a motivational interviewing pretreatment to cognitive behavioral therapy for generalized anxiety disorder: A preliminary randomized controlled trial. *Journal of Anxiety Disorders, 23,* 1106-1117. DOI:10.1016/j.janxdis.2009.07.014

Westra, H. A., Aviram, A., & Doell, F. K. (2011). Extending motivational interviewing to the treatment of major mental health problems: Current directions and evidence. *The Canadian Journal of Psychiatry / La Revue Canadienne De Psychiatrie, 56,* 643-650. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/918759930?accountid=15182

Westra, H.A., Constantino, M.J., & Antony, M.M. (2014). Integrating motivational interviewing with cognitive behavioral therapy for severe generalized anxiety disorder: A Randomized controlled trial. Manuscript in preparation.

White, M., & Epston, D. (1990). *Narrative means to therapeutic ends.* New York: Norton.

Williams, J.M.G., Stiles, W.B., & Shapiro, D.A. (1999). Cognitive mechanisms in the avoidance of painful and dangerous thoughts: Elaborating the assimilation model. *Cognitive Therapy and Research, 23,* 285-306. Retrieved from http://search.proquest.com.ezproxy.library.yorku.ca/docview/619412026?accountid=15182

Williams, J. M. G., Barnhofer, T., Crane, C., Hermans, D., Raes, F., Watkins, E., & Dalgleish, T. (2007). Autobiographical memory specificity and emotional disorder. *Psychological Bulletin, 133,* 122–148. DOI:10.1037/0033-2909.133.1.122

Yonkers, K. A., Bruce, S. E., Dyck, I. R., & Keller, M. B. (2003). Chronicity, relapse, and illness--course of panic disorder, social phobia, and generalized anxiety disorder: Findings in men and women from 8 years of follow-up. *Depression and Anxiety,17*(3), 173-179. DOI:10.1002/da.10106

Zinbarg, R.E., Craske, M.G., & Barlow, D.H. (2006). *Mastery of your anxiety and worry, 2nd ed. (therapist guide).* New York, NY: Oxford University Press.

Appendix A:
The NEPCS

Narrative and Emotion Process Coding System

(NEPCS)

Version 3.0

Department of Psychology

York University

Toronto, Ontario, Canada

July 2014

Marker Description	Indicators	Examples
Same Old Story		
Client's story involves over-general descriptions of interpersonal, behavioural, or thought patterns or emotional states, accompanied by a sense of stuckness.	Linguistic indicators: always, never, no matter what, here we go again. Low personal agency • Client may express helplessness, powerlessness, hopelessness, or resignation. • Client may view problematic patterns as maintained by forces outside of the self. Generic ABM, or combination specific/generic ABM • Generic ABM – Personal recollections that represent a blend of many similar events repeated over a long period of time. This includes memory descriptions of non-specific events that lack discrete connection to a particular moment in time (in contrast with a single-event memory that is specific and focused on a particular incident**).** Generic ABMs blend unique events into an amalgam or schematic representation that is meant to capture key commonalities that link the events together. • Combined Specific/Generic ABM – Represents a narrative sequence in which a specific incident or life event is contextualized within an overall life theme or pattern of life events. In this category, the specific event is used as a best exemplar of an important life theme; the meanings attached to the single event are generalized to other contexts and time periods in the person's life. Emotion is global, non-specific (secondary emotion) • An emotional response to another emotion (e.g. one emotion interrupts another emotion) • Does not fit the person's appraisal of the situation	C:…*getting all the negative message like never getting any encouragement…it's almost like* [my husband's]…*point of view is the only right one…and everybody has to follow it, like there's nothing outside of that…it's just like whichever way I turn, you know no matter what…it's never the right thing and he just doesn't want to be around me.* *** C: *Well all I can really say is that I remember the statement that she made at the time, but I guess at the time I didn't really, you know, didn't really click in, or pay much attention to it, other than that she made the statement that I guess she was number one, and everything else took second place.* T: *And, somewhere along the way there I guess you've come to realize, that's who she is.* C: *Yeah. She was never concerned about me. She was concerned about herself.* T: *Like there's no two-way in this relationship, it feels like it's all about her*. C: *It's all the one way, yup. Behave, be good, don't give me any trouble or cause me any misery, or cause me any discomfort.* T: *She's still like that* C: *Oh, yeah. Mmhmm. Yup.*

Empty Story		
Client's narrative entails the description and elaboration of external events or information, accompanied by a lack of reflexivity and absent or low expressed emotional arousal (i.e., client either does not express emotions, or acknowledges emotions but there is little arousal in voice or body).	A focus on event details. • Attention is focused almost exclusively on external events (e.g., "what happened"). • This may include factual autobiographical memories about the self (i.e., an account based on factual information). Lack of self focus in the recounting of the narrative event • The client tells a story, describes other people or events in which s/he is not involved, or presents a generalized or detached account of ideas. • Refers in passing to him/herself but his/her references do not establish his/her involvement. First person pronouns only define the client as object, spectator, or incidental participant. The client treats himself/herself as an object or instrument or in so remote a way that the story could be about someone else. The significance (meaning) of story is unclear to the listener • Significance of the disclosure of story at that moment in therapy unclear, and/or meaning of story to client is unclear. The content is such that the speaker is identified with it in some way but the association is not made clear. External voice • The external voice has a pre-monitored quality (e.g., "talking at" quality) involving may indicate a more rehearsed conceptual style of processing and a lack of spontaneity and may suggest that content is not freshly experienced. • The client's manner of expression is remote, matter of fact, or offhand as in superficial social chit-chat, or has a mechanical quality.	C: …[my kids] *don't particularly want to go anywhere with me…the only way I can get them to spend any time is if I offer to take them out for a very expensive dinner.* T: *So this must be very very painful, you're still wanting that kind of connection with them. You haven't given up on that, it keeps hurting.* C: *We haven't taken a holiday in three years…they're involved with their friends to an extreme…* T: *…I have a sense that there's a lot of pain underneath what you are telling me.* C: *Oh yeah…well, of course – that goes without saying.* ******* C: *And I wasn't upset or anything, I just packed up my stuff, she told me to pack up my stuff it was nothing really personal she still gave me a recommendation. It was just the fact that, in their view, I had "acted too quickly" on a potential client. I already had sent a credit check, which is my function, but the client was not yet confirmed. In my view it was confirmed and so I went ahead. And that's what attributed to them letting me go. Plus the work, I was done by 10 and had nothing to do for the rest of the day. So that's why they let me go. And I wasn't really heartbroken about it but I had actually just purchased a TV, that's when it happened. And I'd bought it like 3 or 4 days before. I asked the guy when I bought it, "if something happens, can I return it?" He basically told me it was final sale. Unless it's a warranty issue. And, um, I actually. I don't think I even took it out of the box. I went home, I took it back, and the guy who sold it to me was like, 'I thought I said no returns." So I said, "I lost my job." And then he took it back.*

Unstoried Emotion		
Client verbally or non-verbally expresses undifferentiated emotional states that are unacknowledged, disconnected or not integrated within the narrative (i.e., emotional response is not referred to or elaborated in the plot).	Dysregulated emotion (i.e., extremely intense emotional arousal apparent in both the voice and the body of the client). • Usual speech patterns are extremely disrupted by emotional overflow, as indicated by changes in accentuation patterns, unevenness of pace, changes in pitch, and volume or force of voice. • Emotional expression is completely spontaneous and unrestricted. • Emotional arousal appears to be an uncontrollable and disruptive negative experience in which the client feels like s/he are falling apart. Emotional Overflow – not dysregulated, but powerful and relatively unexplored or disconnected from narrative. Dissociative emotion. • Silence and pausing; clients appear to face obstructions in their process of self-exploration, by attempting to disengage by avoiding and/or withdrawing from emotion. • Therapy discourse markers may include discussion of difficult emotion, pauses followed by a response that indicates that client had stopped processing to the same depth as before the pause, pauses followed by jokes, or summarizing, dismissing, or distracting responses. No discernable cause of affect • Inability to identify a specific cause or starting point that explains the onset of the emotional response • Client demonstrates little or no understanding of what the emotional state means to him/her • No relational or situational context identified Somatic complaints • Client identifies points of tension in the body • Client describes pain or other bodily discomfort	T: *So it's hard to keep the lid completely shut and it keeps peeking out.* C: *yeah I find it's…affected my…stomach…you know how you get that tightness and you always feel like…sort of slightly nauseous all the time…like everything you eat kind of sits there…* *** T: *What's bad about that? It's like he's judging me, or…*? C: *Um, I think he sees, um, I don't know. It feels like all the times that I did well, it's…*[tears up]. *Sorry* [smiles], *sorry,* [reaches for Kleenex]. *Um…*[smiles, crying, covers her face]. T: *What's happening right now?* C: [silent, crying]. *It's like, now he sees the real me.* T: *I see. Now he sees the real me*. C: [client looks down at thought record, writing]. T: *And those tears are tears of? I mean I think they're important, they're telling you something…* C: [continues staring down at clipboard, fidgeting with pen, silent :10 seconds]. T: *I feel…sad? Or mad? Or…* C: [crying again]. *Sorry, I'm really sorry.* *** C:..*and I just feel like my mind is going a million miles an hour, with…same old kind of stuff.* T: *Ok, well, so…in particular, what sort of stuff?* C: [starts to cry, shaking her head. :20 silence]. *Um , uh, it's all kind of one big ball.* T: *Ok.* C: *I just, um, I don't know.* [more silence, crying]. *It's just, I'm just, it's just a never ending…I don't know, it's just kind of a big ball.*

	Physical Indicators • Change in body posture (e.g. rigid), eye contact (e.g. diminished), vocal tone (e.g. quivering or raised voice), gestures (e.g. placing hand on chest), bodily movements (e.g. hand wringing, restless legs)	
Superficial Story		
Client's emotional state and narrative expression are presented in a generalized, vague or incoherent manner. The client may talk about his or her own feelings or self-relevant ideas in a coherent manner, but with little or no evidence of exploration or discovery.	Narrative incoherence. • Story holds together loosely or is scattered. The client may talk his or her own feelings or self-relevant ideas, but in a skipping or jumping manner. • The client presents multiple trains of thought, stories or points within rapid succession that remain incomplete. • Connection between ideas may be unclear to therapist. Emotion is depersonalized . • The client may exhibit high or low emotional arousal; however, if the client is emotionally aroused, it is evident from his/her manner, not from his/her words. • If the client mentions his/her feelings, he/she treats them abstractly, impersonally, as objects. • The client uses third person pronouns (e.g., "one feels…") • Client appears to be removed and distant from emotional impact of narrative. Lack of self-focus. • May include biographical information about others, or descriptions or explanations. • (imagination/fantasy/projection) of others' thoughts, feelings, or behaviours • If focused on other, little discussion of self-related thoughts, feelings and behaviours Hypothetical scenarios, conjecture. Unclear referents (e.g., "it" "that" "this").	C: *And then, the moment…sometimes with certain things I just can't help myself. Without having to think of myself, it's always great when this happens, it's always down to the point. I can't think of any examples. But when it happens, all of a sudden they are just like, wow. Because of all of a sudden they just get it back.*

Reflexive Story		
Client's narrative includes a coherent analysis of or reflection on an ABM, or on a behavioural, cognitive, emotional, or interpersonal pattern. Often explanatory in nature, the client may provide a "why" or "how" for the emergence of significant events or patterns, or may discuss why something matters. The client appears engaged in this process, but with limited evidence of present-centered exploration, searching, or discovery.	May be an introduction and setting the scene for further analysis or exploration. Can range from no/low emotional arousal to moderate –high arousal. Focus on self. • Narrative is told from a personal perspective and includes the details of the clients feelings, reactions, motives, goals and assumptions. Client provides description of feelings as they occur in a range of situations, or relate reactions to self-image. Abstract terms or jargon are expanded and elaborated with some internal detail. Reporting internal experience not arising from present centered exploration.	C: *It's just, it's shaped who I am.* T: *How so? Can you say more about that?* C:*I guess like the whole people pleasing thing. 'Cause I guess, I had to really watch my back with her, all the time. And like, this was my home. It was supposed to be where I felt safe.* T: *Right. You sort of learned, "ok I can't really trust people."* C: *And she was my parent. Or a parent figure. And I just feel like, you know, I've always had to watch my back, I was always—and I think, this is what is now this constant, like, trying to work out every eventuality, because she was so manipulative that I had to feel like I was one step ahead of her.* *** C: *With my boyfriend it's like we're equal. Completely equal. And with a few of my friends I feel equal, so I can be myself with them because we're equal.* T: *Right, so you feel like you can be yourself in relationships where you're not inferior, or something*. C: *Right, and I feel inferior when I'm with them, then I feel inferior in my work, and then I feel inferior in my life, you know what I mean? So, I think if I start to change the relationship I have with people it will change the relationship I have with my work, the relationship I have with myself.* T: *It sounds like that's a really important connection to make, because you just said I feel inferior in my life if I don't sort of stand up for myself.* C*: Yeah, because you're always constantly interacting with people, so…I guess my interaction with my friends has had a lot of impact on how…how I feel about myself, you know what I mean?*

Competing Plotlines		
Client expresses or implies competing or opposing emotional responses, lines of thinking or behaviour or action tendencies in relation to a specific event or narrative context, accompanied by confusion, curiosity, uncertainty, self-doubt, protest, anger or frustration (i.e., the client expresses feeling conflicted over the competition). Tension and incongruence are at the core of these two opposing emotional responses, ideas or behaviours.	Linguistic indicators (e.g., on the one hand, on the other hand; one part of me). Moderate expressed emotional arousal. • Arousal is moderate in voice and body. Ordinary speech patterns may be moderately disrupted by emotional overflow as represented by changes in accentuation patterns, unevenness of pace, changes in pitch. Although there is some freedom from control and restraints, arousal may still be somewhat restricted. Breach of client's beliefs and assumptions about the world and/or the self, leading to a shattered sense of identity, purpose, and/or values. • This may be reflected in questions such as, "How do I make sense of this?" "Why has this happened to me?", "Why am I behaving/why do I feel this way?", "Why do I feel two different ways?" Both of the competing emotional responses or ideas do not need to be explicitly expressed by the client. One may be implied but recognized as "competing" in the broader context of the client's previously-expressed tendencies, same-old-story, therapy goals, etc. (e.g., client can express wishes, state confusion about actions or feelings without articulating a direct desire for change).	C: *…it's like, I have three healthy children, a house, we're not wealthy by any means but we're okay, um and I sort of go "oh"…why am I not…happier? I don't know.* T: *…sounds almost like you're saying, "what's the matter with me? What's wrong with me?"* C: *yes… "what more do I need?" um, "am I grateful?" It's funny because you start to feel that you should be grateful but you, you really can't feel grateful. Isn't that awful? That's horrible. It's an awful feeling…* *** C: *And I think there's also a fear, um, that because I'm an energizer bunny, that if I slow down a little, like…I won't be as, um accomplished, you know, or people are going to notice, like "gosh,* [name] *is being lazy"* T: *Yeah, so if I'm not on top of everything and doing everything then I'm going to be a "lazy slob"* C: *Yeah.* [Laughter]. *Yes. And I don't want people to think that, obviously.*
Inchoate Story		
Client appears to focus attention inward in order to sort through, piece together, or make sense of an experience and search or	Narrative lacks clear beginning, middle, and end. • Client is unable to clearly articulate the story; the telling of the story is disjointed. Both client and therapist may find it difficult to follow the story. • Situational/relational context is only partially elaborated	C:*…and then for the rest of my life having no sense of self, or at least one that was really discombobulated in a way.* T: *So it feels like he took your sense of self away.* C: *Yeah, yeah* [silence]. *And I'm left…*[silence*]…because we moved, things seemed to be ok on the outside. But inside, there*

struggle for the appropriate symbolization in language.	• Client expresses confusion or uncertainty about the causes, factors, and/or details of the narrated event. • Client describes a disjointed, unclear or hard to understand narrative. Client may use metaphor to symbolize an experience. Client engages in a present-centered exploration of patterns of feelings, behaviour, actions, reactions, etc., but appears to struggle to articulate something new. Disjointed description of subjective experience (internal state) of protagonists and antagonists. • Pausing and/or disrupted speech as client attempts to articulate internal experience. o Client struggles to symbolize novel or complex experience felt in that moment. Client is silent because of an emotional experience or due to the process of moving into contact with an emotion.	*was…*[pause, closes eyes, scrunches up face] *a, like a* [silence] *black hole or a void, or a…not a ticking time bomb* [makes fist like a bomb], *but there was something that wasn't there.* [Silence]. *Or actually there's something that was there* [uses other hand to clasp fist*], that loathing, or just because…and then…and then, it just sort of, every time I became more sexually aware, it built up, and built up over the years…*
Experiential Story		
A client narrative of what happened and how it felt; an experiential re-entry into an generic or specific autobiographical memory with reference to the associated internal experience and emotional reactions	An emotional differentiation of what happened. • The therapist may facilitate re-entry into the landscape of action and emotion. • Moderate to high emotional arousal. • Client will discuss his/her emotions, but may also report what they saw, heard, smelled, etc. (i.e., sensory exploration). • Client's gestures, posture, or gaze may indicate review or re-enactment of the actions associated with the event. Similar to Robert Elliott's "memory reprocessing."	C:*…and all I could think of was this poor thing, she's been there all alone, she's going to think I abandoned her…that's all I could think of. It was really really awful.* T: *I can imagine, she's there all by herself, feeling so lonely*. C: *In a place she hates to be…* T: *So that must have been so hurtful and painful for you to almost feel like "I somehow abandoned her."* C: *That's what it felt like.* T: *Like, "I didn't want to do that to her."* C: *This is the same* [cat] *my father tried to kill* T: *Oh, so there was a lot of emotional attachment there…* C: *…I just felt lost. I can remember going, I went and bought a bottle of wine because wine would put me put to sleep, a glass, and I tried that and it just did nothing. I might as well have ate*

		a candy or something, and I was just wound. And I just went out and walked and walked and walked, even where it wasn't safe and where it was dark, and it was like I was in a fog, and it was raining and raining, a thunderstorm and at night, and I got wound up, and I just had to walk it off, and it's like I couldn't. I was getting soaking wet but I didn't care.
Unexpected Outcome		
Client narratives involving descriptions of "new" behaviours, emotional responses, and/or thought patterns, accompanied by expressions of surprise, excitement, contentment, pride, protest, and/or relief.	Linguistic indicators: new, different, comparisons between past and present. Specific ABMs detailing new, adaptive actions, reactions, and/or emotions in the context of previously troubling events/scenarios. Client identifies his/her own active role in the event Primary emotion is present within the story (i.e., an individual's very first automatic emotional response to a situation). • Indications of primary emotion are that emotion has to be (a) experienced in the present, (b) in a mindfully aware manner, meaning that (c) the emotion has to be owned by the client who experiences him/herself as an agent rather than as a victim of the feeling and (d) the emotion is not overwhelming; (e) the emotional process has to be fluid rather than blocked; and (f) the emotion has to be on a therapeutically relevant theme.	C: *…it was just really surprising and amazing like to see that you know, and to notice that…I just…took a completely different approach to uh answering the question and representing like what's important to me…I was very pleased with myself.* *** C: *It was like—my stomach was so bad that I was bent over, and I thought 'I'm obviously anxious for some reason,' but, as I was saying, instead of just sitting there wallowing in it I was like 'ok, what can I do?'* T: *Right, is that a change for you, in terms of—* C: *Yes, 'cause generally that is my comfort go-to place is to just sit and wallow in it, so to be able to sit and do the relaxation and kick* [the anxiety] *to the curb, it was a big change. I just keep thinking about what you said, you can't be anxious and relaxed at the same time. So I keep trying to relax myself, and do the muscle stuff, and--* T: *Right, right. So what was that like, then?* C: *Good, it felt really good. After, I felt like a different person, especially because my muscles were so tight that actually doing it helped relieve a lot of the stress, like unwinding them. I mean my anxiety was probably at like 90%, and then after I relaxed myself it was maybe like 20, 30.*
Discovery Story		
Client narratives in which a	Moderate emotional arousal.	C: *I think that that...humiliation was the currency that my*

new account is constructed as a client describes his or her subjective experience, accompanied by a sense of discovery resulting in a reconceptualization, reorganization or new understanding of the self.	A general overview of an event or a description of a specific incident or event (past, present, or future; actual or imagined). An experiential description of how one feels or felt during the specified event. A reflexive or interpretive analysis of current, past, or future events and/or subjective experiences, in which the client: • Examines own behaviour in situations/relationships. • Plans future behaviour alternatives. • Examines own thinking in situations. • Explores own emotions in situations. • Discusses new understanding of patterns in own. behaviour and/or that of others. • Is self-questioning**.** A reconceptualization of the Same Old Story. An exploration or description of changed patterns (behavior, thought, emotion, interpersonal) or understandings, including some discovery of *how* the change occurred (i.e., indicating that the client has perspective on own change process).	*parents dealt in...when they where disciplining myself and my sisters... and I felt - I feel - very sad about that.* T: *mm-hm...when you talk about it now...* C: *Yeah because I feel like they criticized and nagged and were negative to the point where I chose no longer to be honest with them...and because we had such a limited discourse they really didn't know who the heck I was.* *** C: *Just being able to unravel that ball of wool is huge. Because now, if I'm feeling anxious, I start to unravel why. And for me that's huge. Because then I have a reason. Do you know what I mean? Because then it's not like 'oh it's anxiety and I can't control it," it's like "oh well I'm anxious because I'm going to this appointment and I don't want to see my ex-employers who I just sued." Do you know what I mean?* […] *And it's giving it acceptance as well, like "you don't like any of those situations, you're having a bad day, and that's OK. You're not mad, it's anxiety but the situation is stress-provoking because* [x, y, z reasons], *and then being able to change it as well.*
No Client Marker		
Segments in which there are no client markers present (e.g., where therapist is talking, "chit-chat", scheduling).		
Unclear Marker		
Segments in which a marker is present that does not fit a pre-existing category, but it is clear to coders that some narrative-emotion process is taking place. This is generally a "holding" category, until a new category is formed or until a judge can be brought in to help resolve coding.		

Appendix B:
Tables

Table 1. Client Demographics and Sample Selection Criteria

id	age	gender	ethnicity	Highest education	Employment status	Marital status	Additional clinical diagnoses	Outcome status	Sessions coded	PSWQ scores	
										pre	post
ER220	24	Female	Latin American	Postsecondary degree	Full-time student	Single	SP, Single-episode remitted MDD	Recovered	1, 3, 6, 8, 11, 13	75	24
EX225	32	Female	White	Postsecondary degree	Employed full-time	Co-habiting	PD with agoraphobia, specific phobia, SP	Recovered	1, 3, 6, 8, 11, 13	80	16
IV327	24	Female	Other	Postsecondary degree	Full-time student	Single	SP, Single-episode remitted MDD	Recovered	1, 3, 6, 8, 12, 13	77	21
EC205	51	Female	White	Postgraduate degree	Employed full-time	Married	SP, Specific phobia	Unchanged	1, 3, 6, 8, 11, 13	80	75
GQ271	36	Female	White	Postsecondary degree	Employed full-time	Single	Recurrent MDD, Agoraphobia without panic, SP	Unchanged	1, 3, 6, 8, 11, 13	70	66
JN345	38	Male	South Asian	Postsecondary degree	Employed full-time	Married	SP, Single-episode remitted MDD	Unchanged	1, 3, 6, 8, 11, 13	70	61

Notes: PSWQ = Penn State Worry Questionnaire (Meyer et al., 1990); SP = Social Phobia; MDD = Major Depressive Disorder; PD = Panic Disorder.

Table 2. NEPCS Problem markers: raw frequencies and mean percentages by stage, outcome, and overall

		Same Old Story		Empty Story		Unstoried Emotion		Superficial Story		Problem Markers TOTAL	
	TOTAL MINUTES	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Recovered											
Early	328	14	4.7	6	1.8	2	0.7	93	28.7	115	35.6
Middle	343	2	0.5	12	3.5	7	1.7	102	30.5	123	36.3
Late	349	3	1	9	2.5	2	0.7	109	30.7	94	27
Overall	1020	19	2.1	27	2.6	11	1	304	29.9	332	32.5
Unchanged											
Early	315	23	8	9	3	5	1.5	113	36.3	150	48.7
Middle	326	7	2	35	11	15	4.2	115	35.3	172	52.9
Late	358	12	3.2	41	12.3	11	2.8	163	45.8	227	64.2
Overall	999	42	4.4	85	8.8	31	2.8	391	39.1	549	55.3
Total Sample											
Early	643	37	6.3	15	2.4	7	1.1	208	32.5	265	42.1
Middle	669	9	1.3	47	7.3	22	2.9	222	32.9	295	44.6
Late	707	15	2.1	50	7.4	13	1.8	265	38.3	321	45.4
Overall	2019	61	3.2	112	5.7	42	1.9	695	34.6	881	43.6

Table 3. NEPCS Transition markers: raw frequencies and mean percentages by stage, outcome, and overall

		Reflexive Story		Experiential Story		Inchoate Story		Competing Plotlines		Transition Markers TOTAL	
	TOTAL MINUTES	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Recovered											
Early	328	60	18.8	4	1.3	5	1.3	65	20.3	134	41.6
Middle	343	28	8.5	6	1.8	4	0.1	46	13	84	24.7
Late	349	29	8.5	2	0.7	2	0.7	33	9.3	66	19.2
Overall	1020	117	11.9	12	1.3	11	1	144	14.2	284	28.5
Unchanged											
Early	315	19	5.8	0	0	1	0.3	36	11.5	56	17.8
Middle	326	15	4.8	1	0.3	1	0.3	30	8.7	47	13.8
Late	358	3	1	0	0	1	0.3	15	4.3	19	5.7
Overall	999	37	3.7	1	0.1	3	0.3	81	8.2	122	12.4
Total Sample											
Early	643	79	12.3	4	0.7	6	0.8	0.8101	15.9	190	29
Middle	669	43	6.7	7	1.1	5	0.7	760.7	10.8	131	16.2
Late	707	32	4.8	2	0.3	3	0.5	48	6.8	85	12.4
Overall	2019	154	7.9	13	0.7	14	0.7	225	11.2	406	20.5

Table 4. NEPCS Change markers and No Client Marker: raw frequencies and mean percentages

		Unexpected Outcome Story		Discovery Story		Change Markers TOTAL		No Client Marker	
	TOTAL MINUTES	*f*	%	*f*	%	*f*	%	*f*	%
Recovered									
Early	328	24	7.5	6	1.7	30	9.1	49	13.7
Middle	343	32	9.2	13	3.8	45	13.3	91	25.7
Late	349	42	12.5	45	13.3	87	25.9	73	20
Overall	1020	98	9.7	64	6.3	162	16.1	213	19.8
Unchanged									
Early	315	2	0.7	0	0	2	0.6	107	33
Middle	326	1	0.3	0	0	1	0.3	106	33
Late	358	0	0	0	0	0	0	112	30.2
Overall	999	3	0.3	0	0	3	3.2	325	32
Total Sample									
Early	643	26	4.1	6	0.8	32	4.8	156	23.3
Middle	669	33	4.8	13	1.9	46	6.8	197	29
Late	707	42	6.3	45	6.7	87	12.9	185	25.1
Overall	2019	101	2	64	3.1	165	8.2	538	25.9