

University of Windsor

Scholarship at UWindor

Electronic Theses and Dissertations

Theses, Dissertations, and Major Papers

7-24-2019

Resolving Distressing Autobiographical Memories: The Role of Perspective in Imagery, Writing, and Self-Reflection

Chantal M. Boucher
University of Windsor

Follow this and additional works at: <https://scholar.uwindsor.ca/etd>

Recommended Citation

Boucher, Chantal M., "Resolving Distressing Autobiographical Memories: The Role of Perspective in Imagery, Writing, and Self-Reflection" (2019). *Electronic Theses and Dissertations*. 7777.
<https://scholar.uwindsor.ca/etd/7777>

This online database contains the full-text of PhD dissertations and Masters' theses of University of Windsor students from 1954 forward. These documents are made available for personal study and research purposes only, in accordance with the Canadian Copyright Act and the Creative Commons license—CC BY-NC-ND (Attribution, Non-Commercial, No Derivative Works). Under this license, works must always be attributed to the copyright holder (original author), cannot be used for any commercial purposes, and may not be altered. Any other use would require the permission of the copyright holder. Students may inquire about withdrawing their dissertation and/or thesis from this database. For additional inquiries, please contact the repository administrator via email (scholarship@uwindsor.ca) or by telephone at 519-253-3000ext. 3208.

RESOLVING DISTRESSING AUTOBIOGRAPHICAL MEMORIES:
THE ROLE OF PERSPECTIVE IN IMAGERY, WRITING, AND SELF-REFLECTION

By

Chantal M. Boucher

A Dissertation
Submitted to the Faculty of Graduate Studies
through the Department of Psychology
in Partial Fulfillment of the Requirements for
the Degree of Doctor of Philosophy at the
University of Windsor

Windsor, Ontario, Canada

© 2019 Chantal M. Boucher

RESOLVING DISTRESSING AUTOBIOGRAPHICAL MEMORIES:
THE ROLE OF PERSPECTIVE IN IMAGERY, WRITING, AND SELF-REFLECTION

By
Chantal M. Boucher

APPROVED BY:

A. Wilson, External Examiner
Wilfrid Laurier University

C. Hundleby
Department of Philosophy

D. Jackson
Department of Psychology

K. Soucie
Department of Psychology

A. Pascual-Leone, Advisor
A. Scoboria (1972 – 2019), Advisor
Department of Psychology

July 24, 2019

DECLARATION OF ORIGINALITY

I hereby certify that I am the sole author of this dissertation and that no part of this dissertation has been published or submitted for publication.

I certify that, to the best of my knowledge, my dissertation does not infringe upon anyone's copyright nor violate any proprietary rights and that any ideas, techniques, quotations, or any other material from the work of other people included in my dissertation, published or otherwise, are fully acknowledged in accordance with the standard referencing practices. Furthermore, to the extent that I have included copyrighted material that surpasses the bounds of fair dealing within the meaning of the Canada Copyright Act, I certify that I have obtained a written permission from the copyright owner(s) to include such material(s) in my thesis and have included copies of such copyright clearances to my appendix.

I declare that this is a true copy of my dissertation, including any final revisions, as approved by my thesis committee and the Graduate Studies office, and that this dissertation has not been submitted for a higher degree to any other University or Institution.

ABSTRACT

This program of research consists of three studies centered on the development and validation of a measure of psychological closure along with an investigation of how different strategies for recalling and writing about unresolved autobiographical events inform attributions of closure and aspects of emotion (valence, intensity, and reaction).

Study 1 ($N_{total}=601$) centered on the construction of the Psychological Closure Scale (PCS). This began with a multifaceted conceptualization based on a thorough review of definitions and theoretical contexts. Factor analyses revealed a robust, good-fitting, and reliable structural solution. The PCS contains 42 items that assess seven facets of event resolution: finality, understanding, felt distance, emotional relief, changed experience, less preoccupation, and reduced need to act. Model fit was replicated using independent MTurk (Study 2) and undergraduate (Study 3) samples.

Study 2 ($N = 182$) examined issues of construct validity for the PCS. Convergent and discriminant validity were supported via statistically meaningful correlations amongst the PCS and theoretically related constructs (e.g., unfinished business resolution), along with the lack of correlations with theoretically unrelated constructs (e.g., event impact).

Study 3 ($N = 351$) used a 15-minute randomized control writing paradigm to explore changes in closure and emotion at retrieval and 1-2 days later. Participants selected an unresolved event and were instructed to write about it using one of two narrative perspective shift sequences: third-person to first-person (*shift-to-first*) vs. first-person to third-person (*shift-to-third*). First-person entailed recalling and visualizing the event as if through one's own eyes and writing about it using the pronoun, 'I'. Third-person involved envisioning the event as if through the eyes of an observer and writing about it using the pronouns 'He', 'She', or 'They' to refer to the self. Participants were then prompted to use one of two mental foci to continue writing about their

event: an *experience focus* consisted of reporting on the event's concrete details, whereas a *coherence focus* entailed reporting on its self-narrative significance. The *control* condition was instructed to think about their event in a "true and honest manner." All participants completed the PCS, emotion, and exploratory items (cognitive avoidance, centrality of event) immediately following the manipulation and 1-2 days later.

The shift-to-first condition reported greater closure, relative to the shift-to-third and control conditions, particularly on subscales pertaining to finality, understanding, emotional release, mental liberation, and behavioural deactivation. These effects were greater when followed by an experience (not coherence) focus, however mental focus conditions showed no difference on closure. The shift-to-first condition also indicated less negative affect, emotional intensity, and reactivity than the other conditions. The magnitude of these effects remained after 1-2 days. All writing conditions showed increases in closure over time along with decreases in negative affect, while the control condition showed no change. The shift-to-first condition also reported less cognitive avoidance and less event centrality to identity and life story relative to the other groups.

This research offers a new measure of psychological closure with preliminary evidence of good psychometric properties. It also addresses theoretical and empirical discrepancies concerning the function and adaptive value of imagery and narrative perspectives, identifies effective shift sequences that support greater resolution, and suggests possible mechanisms by which this occurs. Theoretical and clinical implications along with future directions are discussed. Closure, memory-induced emotion regulation, and adaptive self-reflection are thought to be facilitated by features of the retrieval context that support sufficient distance from, followed by engagement with, unresolved past events, elements within the events, and the self as rememberer, tied to the present.

Keywords: Psychological closure, emotion, autobiographical memory, unresolved events, construal levels, psychological distance

DEDICATION

This dissertation is dedicated to my loving husband, Fady Yousif. He encouraged me to take one step, and together we walked the whole way. I am forever grateful for his unwavering support during the challenges of graduate school and life.

ACKNOWLEDGEMENTS

My deepest gratitude goes to my late advisor, Dr. Alan Scoboria, for his invaluable guidance, wisdom, and support throughout the creation and execution of this dissertation. Dr. Scoboria has had a profoundly meaningful impact my scholarly development and is so dearly missed. I am eternally grateful for his mentorship and influence. I also offer a very special thanks to Dr. Antonio Pascual-Leone, who graciously stepped in as my advisor in the wake of Dr. Scoboria's passing, guiding me to this point with steadfast encouragement and support. I so value Dr. Pascual-Leone's ability to impart his refined clinical insights and spark new intellectual curiosities with a refreshing sense of humour and pure authenticity. I am thankful to my committee members, Dr. Kendall Soucie, Dr. Dennis Jackson, and Dr. Catherine Hundleby for their thought-provoking and constructive feedback at all stages of this research. To Anne Wilson, who generously served as my external examiner, I am grateful for her careful review of my dissertation, for her stimulating comments and suggestions during the defense, and for inspiring me to consider even broader theoretical and practical landscapes for this program of research.

I must acknowledge my research assistants, Nicolas Turcas, Erik Jaramillo-Lopez, Rachel Hicks, Brittany Holmes, Ghadir Nassereddine, and Jordan Charles, for their instrumental role in study administration and coding. My warmest thanks goes to my dear friends and family, Bahar Haji-Khamneh, Michelle Findlay, Kendra Nespoli, Nadiya Anwiya, and Hana Shly for their unconditional love, understanding, and encouragement in all that I aspire to achieve. To my incredible husband, Fady Yousif, words cannot express how truly grateful I am for his enduring support, his kind and generous heart, and his ceaseless efforts in making the stresses of life fall away so that I could bring this research and my doctoral degree to fruition. My sincere thanks also goes to my fellow Calgary residents, Leah Tobin and Camille Branger, for their uplifting support and most welcome company during the final phases of the writing process. I must also recognize

the Social Sciences and Humanities Research Council of Canada and the Ontario Graduate Scholarship Program for their funding support. I am especially grateful to those who participated in these studies, offering a glimpse into their personal pasts and their inner experiences in the present; their fascinating and inspiring narratives along with their relationships to these narratives constitute the very core this research and my passion for doing it.

TABLE OF CONTENTS

DECLARATION OF ORIGINALITY	iii
ABSTRACT	iv
DEDICATION	vi
ACKNOWLEDGEMENTS	vii
CHAPTER 1: GENERAL INTRODUCTION.....	1
Psychological Distance.....	4
Imagery and Narrative Perspective	8
Theoretical and Empirical Discrepancies.	11
Overview of the Present Studies.....	16
CHAPTER 2: PCS DEVELOPMENT.....	17
Conceptualizing Psychological Closure	17
Existing Measures of Psychological Closure and Related Constructs	21
Study 1 Methods	24
Study 1 Participants.....	24
Study 1 Materials and Measures.....	25
Study 1 Procedure.....	26
Study 1 Results.....	27
Study 1a.....	28
Study 1b.....	34
Study 1 Discussion.....	41
CHAPTER 3: PCS VALIDATION	49
Study 2 Methods	51
Study 2 Participants.....	51
Study 2 Materials and Measures.....	52
Study 2 Procedure.....	55
Study 2 Results.....	55
Correlational Analyses.....	56
PCS Model Fit	59
Study 2 Discussion.....	59

CHAPTER 4: EFFECTS OF NARRATIVE PERSPECTIVE AND MENTAL FOCUS ON PSYCHOLOGICAL CLOSURE AND EMOTION	64
Visual Imagery Perspective	66
Narrative Pronoun Use	68
Mental Focus	71
Study 3 Hypotheses	75
Study 3 Methods	77
Study 3 Design	77
Study 3 Participants	77
Study 3 Materials and Measures	78
Study 3 Procedure	80
Study 3 Results	82
Preliminary Diagnostics	82
Effects of Narrative Perspective Shifting and Mental Focus on Closure	86
Mediation Analyses Involving Subjective Distance and Self-Change	91
Closure Ratings Over Time	97
Closure at Time 2	98
Effects of Narrative Perspective Shifting and Mental Focus on Emotion	100
Valence	101
Intensity	103
Reaction	103
Emotion Ratings Over Time	104
Emotion at Time 2	106
Correlations Amongst Closure and Emotion	107
Cognitive Avoidance, Event Centrality, and Participant Feedback	107
Cognitive Avoidance	108
Event Centrality	108
Post-Hoc Analysis of Optional Participant Feedback	109
PCS Model Fit	116
Study 3 Discussion	117
Psychological Closure and Distance	117
Psychological Closure and Emotion	121

Accounting for the Current Findings.....	122
Implications for Narrative Process and Expressive Writing	128
Implications for Event-Memory Theory	131
Implications for Adaptive Self-Reflection	132
Implications for Clinical Work.....	133
Summary and Conclusion	138
REFERENCES.....	141
APPENDICES.....	174
Appendix A: Nomenclature	174
Appendix B: Original Item Pool	176
Appendix C: Validity Check Items	178
Appendix D: Optional Open-Ended Questions Following Studies.....	179
Appendix E: Demographics Questionnaire.....	180
Appendix F: Study 1 Event Cue Instructions.....	181
Appendix G: Psychological Closure Scale	182
Appendix H: Mental Itch Scale.....	184
Appendix I: Need for Closure Scale – Short.....	185
Appendix J: Responses to Emotions Questionnaire.....	186
Appendix K: Centrality of Event Scale.....	187
Appendix L: Transitional Impact Scale	188
Appendix M: Subjective Impact and Personal Significance Scale	189
Appendix N: Sudden Restructuring of Experience Scale	190
Appendix O: Unfinished Business Resolution Scale	191
Appendix P: Self-Assessment Mannequin.....	192
Appendix Q: Positive and Negative Affect Schedule	193
Appendix R: Emotion Items.....	194
Appendix S: Temporal Distance and Self-Change Items	195
Appendix T: Manipulation Checks	196
Appendix U: Cognitive Avoidance	197
Appendix V: Study 3 Event Cue and Narrative Perspective Instructions.....	198
Appendix W: Study 3 Mental Focus Instructions	199
VITA AUCTORIS	200

CHAPTER 1

GENERAL INTRODUCTION

Following the occurrence of a seemingly senseless or uncontrollable event, such as the loss of a loved one, serious accident, or illness, people often struggle to make sense of the event in an effort to “move past it” or “put it behind them,” so to speak. This sense of *psychological closure* (or simply, ‘closure’) has been theorized to encompass a subjective appraisal of resolution or understanding of an event that is accompanied by a reduced emotional arousal and reduced need to take action (Beike & Wirth, 2000; Beike & Wirth-Beaumont, 2005). On the other hand, “open”¹ memories are evaluated as unresolved and are emotionally charged; they are events that continue to nag at our minds, vying for our attention and cognitive resources. Open memories can arouse strong emotions in the present that are similar in type and intensity to the original experience (Schwartz, Weinberger, & Singer, 1981; Singer & Salovey, 1993). Recalling an unresolved argument with a loved one, for instance, might conjure a sinking feeling in the pit of one’s stomach, regret, anger, or confusion about why it happened or what to do about it. Open memories, then, are not simply memories of *events* that were emotionally arousing in the past; they are emotionally arousing *memories* of events in the present (Beike & Wirth-Beaumont, 2005).

Although open memories prompt cognitive action, people are notoriously unskilled at attempting to “think through” unpleasant unresolved experiences in order to achieve resolution or greater clarity. Indeed, such attempts to reconcile persistent “open” memories have been associated with increased rumination, which makes people feel worse (e.g., Gruber, Eidelman, Johnson, Smith, & Harvey, 2011; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Wilson, 2002), and over time,

¹ The terms ‘open’ and ‘closed’ are not intended to communicate a dichotomy. Appraisals of closure are regarded on a continuum from low-closure to high-closure and can be applied to events as they are recalled or aspects of experience during recollection.

can lead to depression, anxiety, and lower self-esteem (Beike, Kleinknecht, & Wirth-Beaumont, 2004; Nolen-Hoeksema, 2000). Conversely, arriving at a sense of psychological closure for remembered events has been associated with physical (Beike, 2002) and mental health benefits (e.g., improved self-esteem; Beike et al., 2004; Park, 2010; Pennebaker & Chung, 2007, 2011). Indeed, memory closure is thought to support a view beyond the bounds of the internal so that people may consider themselves and the events they experience in context and arrive at a more integrated understanding of how the events relate to the self and the world around them. This broader, more contextualized understanding of personal past events can, in turn, offer a meaningful guide for life choices (Beike et al., 2004). It is therefore important to find ways to help people increase closure for personally troubling memories.

Low-closure memories tend to be positively associated with unfavourable health outcomes, whereas high-closure memories tend to be related to favourable outcomes, suggesting that degree of closure serves an important regulatory function. An open memory in which one suffered an attack, for example, might invoke feelings of anger or shame, while a sense of closure for such events might involve self-assertion, forgiveness, or compassion. Closure can also influence memory-relevant behaviours (Beike, Adams, & Naufel, 2010). Further, on reflection, some aspects of events may be more emotionally evocative than others. For instance, recalling the perpetrator's face from the vantage point taken at the time of the attack is likely to be more evocative than recalling the event as if from the perspective of a distant observer (e.g., Kross & Ayduk, 2011). Indeed, emphasizing the experiential features (concrete details) vs. coherence features (self-narrative connections) of events during recall has been shown to influence attributions of event impact, centrality to identity (Boucher & Scoboria, 2015), and negative affect (Boucher & Scoboria, 2019). Open memories are also regarded as psychologically closer to the self in the here-and-now relative to closed memories (Beike & Wirth-Beaumont, 2005). The ability to “move past” or “get over” an

event, then, arguably depends upon the creation of sufficient psychological distance between that event, elements contained within the event, including associated past selves, and the current self as rememberer of the experience.

The concept of *psychological distance* has garnered considerable interest in the field, partly due to its demonstrated utility across a range of regulatory functions (e.g., self-control, prediction, planning, evaluation) and other aspects of psychology, from lower-level perception (e.g., seeing the details vs. the gestalt), to cognition (e.g., thinking in exemplars vs. categories), to higher-level constructs (e.g., situational vs. trait attributions; Liberman & Trope, 2014). Dimensions of distance include objective temporal (how long ago an event actually occurred), subjective temporal (how long ago the event is *felt* to have occurred; Janssen, Hearne, & Takarangi, 2015; Wilson & Ross, 2001), geographic, social, and hypothetical distances (Trope & Liberman, 2010).

Trope and Liberman (2010; Liberman & Trope, 2014) proposed that the ability to traverse psychological distance is related to levels of construal in mental representation. For instance, relative to concrete event representations, abstract representations contain fewer specific details, are more schematic, prototypical (Fiske & Taylor, 1991; Smith, 1998), and are regarded as more distal on dimensions of distance (Trope & Liberman, 2010). *Methods of construal* refer to changes in aspects of retrieval, including perspectives used to envision events (imagery perspective), personal pronouns used to narrate events (narrative pronoun use), a focus on change or stability amongst past and present selves (self-consistency), and a focus on the broader self-narrative significance or the concrete details of events (mental focus). This is to say that there are many methods of narrowing or widening the cognitive “lens” through which individuals examine and evaluate events that show promise for regulating memory-induced emotion, making meaning, and fostering a sense of closure.

The current studies explored just this by tapping individuals’ ability to move beyond the self in the here-and-now as a means of altering the retrieval context and determining effects on

appraisals of closure and emotion. As the adaptive value and longevity of various construal methods (e.g., vantage points at recall, pronoun use in written narratives) has been debated (Kross & Ayduk, 2011; Lemogne et al., 2009; McIssac & Eich, 2004; Nigro & Neisser, 1983), additional aims were to explore relations amongst construal methods, cognitive avoidance, and perceived centrality of the event to identity and life-story, along with whether any effects of construal methods would hold 1-2 days later. The remembered events of interest were those experienced as unresolved and distressing (i.e., “open” memories). Thus, criteria for event selection concerned appraisals of memory-induced distress rather than the nature and content of events per se, with emphasis placed on individuals’ *current relation* to the events under consideration. For instance, high- and low-closure trauma memories may consist of the same experience at the time of the event but can be distinguished by the fact that the latter arouses more agitated emotion and a desire for resolution in the present.

I turn now to an overview of foundational concepts, including psychological distance and methods of creating distance within the realm of autobiographical memory (refer to Appendix A for a comprehensive glossary of key terms).

Psychological Distance

The concept of psychological distance has varied across subfields in psychology. Construal level theory (CLT; Trope & Liberman, 2003, 2010) proposes that abstraction enables the traversing of psychological distance and vice versa (traversing distance enables abstraction). The reference point is the self in the here-and-now, and stimuli – be they objects, people, or events – can be removed from this point along temporal, spatial, social, and hypothetical (imagined) dimensions. The authors theorize that these dimensions of distance vary in tandem, such that the sentence, “A long time ago, in a ___ place” is likely to be completed with “far away” rather than “nearby” (Trope & Liberman, 2010, p. 442). The further removed an object (e.g., event-memory) is from direct experience, the higher (more abstract) the construal of that object. Conversely, the more abstractly

an object is construed, the further away (more psychologically distant) it should feel from the present. Abstraction allows specific, idiosyncratic, and incidental information to fall away, thereby facilitating connections with other stored information, hence, new meaning (Trope & Liberman, 2010). For example, a memory of an exchange with a colleague that occurred last week (proximal) might be represented as “planning a conference presentation at a campus coffee shop” (concrete), whereas a memory of such an exchange that occurred 10 years ago (distal) might be represented as “an important bonding experience” (more abstract). Per Trope and Liberman (2010), altering a higher-level abstract feature of an object influences the meaning of that object more than altering a lower-level concrete feature. For instance, the meaning of the conversation is likely to change more if the colleague were changed than if the location were changed. The meaning of lower-level features also depends on higher-level features more than the reverse. For instance, the location details of an upcoming meeting would become more important if the topic was intriguing. Liberman and Trope (2014) argue that the ability to traverse psychological distance by way of abstraction is adaptive to human functioning because it supports contemplation and decision-making about events not part of the here-and-now.

The notion of psychological distance has also figured prominently in a variety of other theories. For instance, Lewin’s (1951) field theory regards life space as the combined distances amongst important objects including goals, people, pasts, and futures. In the field of autobiographical memory, psychological distance is often operationalized more narrowly as a felt (subjective) or actual (objective) sense of how close or far away events are in time (e.g., Janssen et al., 2015; Wilson & Ross, 2001). According to fuzzy-trace theory (Reyna & Brainerd, 1995), retrieval becomes more abstract with the passage of time, as verbatim memory traces decay. In a clinical realm, distancing from painful past events may be conflated with suppression (Freud, 1894/1962, 1896/1962) or cognitive avoidance (McIsaac & Eich, 2004).

Van Boven and colleagues (Van Boven, Kane, McGraw, & Dale, 2010) posit that perceived psychological distance is grounded in, and influenced by, the phenomenology that coincides with objective distance. For instance, greater emotional intensity and perceptual vividness is typically associated with less objective distance, and hence, psychological distance, operationalized as the extent to which an event feels “very close” versus “very distant” *and* “like yesterday” versus “very far away” from the present (Ross & Wilson, 2002). Van Boven et al. also indicated other factors that influence psychological distance, including perceptual fluency (Alter & Oppenheimer, 2008; Unkelbach, 2006), imagery perspective (Frank & Gilovich, 1989; Nigro & Neisser, 1983; Robinson & Swanson, 1993), and self-consistency (Eibach, Libby, Gilovich, 2003). Other constructs thought to reflect a common underlying mental capacity to distance from the self in the here-and-now (Bernstein, Hadash, Lichtash, Tanay, Sheperd, & Fresco, 2015) include cognitive defusion (Hayes, Strosahl, & Wilson, 1999), cognitive distancing (Beck, Rush, Shaw, & Emery, 1979; Ingram & Hollon, 1986), decentering (Safran & Segal, 1990), detached mindfulness (Wells, 2005), metacognitive awareness (Teasdale, Moore, Hayhurst, Pope, Williams, & Segal, 2002), metacognitive mode (Wells, 2000), mindfulness (e.g., Bishop et al., 2004), re-perceiving (Shapiro, Carlson, Astin, & Freedman, 2006), self-as-context (Grieger, 1985; Hayes, Strosahl, & Wilson, 1999, 2012), and self-distancing (Kross, Ayduk, & Mischel, 2005).

Relatedly, contemplating past, future, or hypothetical situations, along with thoughts about these situations, requires a general capacity to direct attention away from the immediate environment and inward to mentally reconstruct and reexperience events in subjective time. This ability, referred to as auto-noetic consciousness (Tulving, 1985; Wheeler, Stuss, & Tulving, 1997), is theorized to enable mental time travel (Suddendorf & Corballis, 1997; Tulving, 1985) into the personal past and future. Within the context of autobiographical memory, this capacity allows people to flexibly call to mind different representations of past experiences, and in so doing, aids in

the construction of new meaning and emotional responses at retrieval (e.g., Boucher & Scoboria, 2015; Kross & Ayduk, 2011; Libby & Eibach, 2011a). Various indicators of psychological distance are therefore thought to be related to a fundamental human ability to shift experiential perspective from *within* one's experience *onto* that experience (James, 1890/1950) and to mentally travel in subjective space and time.

Herein, I use the term 'psychological distance' broadly to refer to the dynamic intersection of multiple dimensions along which subjective proximity or remoteness can be created within the realm of mental simulation. The current studies investigated personal event-memories, which are assumed to involve some degree of mental simulation or sense of re-experiencing, are believed to have occurred to the self in the past, and are thought to be recalled with sufficient accuracy (i.e., 'believed memories'; Scoboria et al., 2014). Anchors of distance can be classed along features contained in the representation (e.g., sensorial and contextual details, emotions, facets of selves contained in the event), the representation as a whole across time (past to future), in relation to current experience (e.g., present appraisals of event importance, impact, and valence), or in terms of objective, subjective, and hypothetical realities. Essentially, psychological distance is thought to be informed by construal representations that cause a mental object (believed memory) to seem closer to or further away from one's present experience along a variety of dimensions.

Relative to CLT's conception of psychological distance, the current definition includes a wider focus on characteristics of event memories that are recognized to interact dynamically; that is, it offers a complex multi-dimensional "view" of the cognitive-affective field so to speak. Due to the fact this notion of psychological distance recognizes the aggregate of distances along multiple dimensions, it is assumed that not all dimensions of distance necessarily operate in tandem. For instance, an event that occurred long ago (temporal distance) might involve persons with whom one closely identifies (social proximity). This view of psychological distance is also narrower in scope

relative to self-observation (e.g., mindfulness) in that it refers specifically to ways of construing events not part of the here-and-now.

The notion that people can view life events as distal objects that can be segmented and contained aligns with the idea that psychological states are grounded in bodily experience (Barsalou, 2008). People feel as though they can “move on” from the past, “bury” memories, or “close a chapter” in their lives. Indeed, a sense of closure may be induced by performing acts like sealing messages or objects in envelopes or containers (Gu, Botti, & Faro, 2013; Li, Wei, & Soman, 2010). Features of expressive writing may also serve to increase closure by way of psychological distance. The construction and disclosure of narratives, which are key to the success of expressive writing (Graybeal, Sexton, & Pennebaker, 2002), aids in the objectification of experience by fostering separation of the self in the present (as narrator) from a self in the past (as protagonist; Apgar, 1997; Wilson & Ross, 2003); it also prompts consideration of others’ perspectives (Labov & Fanshel, 1977), promotes a focus on broader contexts (Meier, 2002), and leads to increased fading of negative affect (Pasupathi, 2007; Pillemer, Desrochers, & Ebanks, 1998; Skowronski, Gibbons, Vogl, & Walker, 2004). Noteworthy, all of these processes involve moving beyond the egocentric viewpoint of the current self.

Imagery and Narrative Perspective

One construal method that has received considerable attention throughout psychology’s history and has been suggested to inform psychological distance is the perspective used to envision events (e.g., Freud, 1899/1962, 1907/1960; Galton, 1883; V. Henri & C. Henri, 1897): A *first-person (field) imagery perspective* entails mentally “seeing” an event as if from one’s own eyes, whereas a *third-person (observer) imagery perspective* involves visualizing the event as if from the eyes of an observer so that one can mentally see themselves and their surroundings (Nigro & Neisser, 1983). Changes in imagery perspective have been shown to influence the phenomenology,

conscious experience, and content of autobiographical memories (Eich, Handy, Holmes, Lerner, & McIsaac, 2012; Rice, 2010) along with current thoughts, feelings, and goals (e.g., Berntsen, Willert, & Rubin, 2003; Kross & Ayduk, 2011; Libby & Eibach, 2011a; McIsaac & Eich, 2004).

Closely related to the perspective used to envision events is the perspective used to narrate them (Gu & Tse, 2016): a *first-person narrative perspective* involves the use of the first-person pronoun, ‘I’, whereas a *third-person narrative perspective* employs third-person pronouns, ‘He’, ‘She’, or ‘They’. In investigations of pronoun use for negative or traumatic events, Fergusson (1993; as cited in Wilson & Ross, 2003) found that instructing people to use a third-person pronoun conferred greater benefits in terms of increased felt distance, greater understanding, lower distress, and fewer illness complaints, as compared to a first-person pronoun. Further, just as people are able to flexibly shift amongst perspectives in mental imagery (e.g., Robinson & Swanson, 1993), they can also shift amongst pronouns in narrative accounts (Chang, Huang, & Lin, 2013; Jin, 2010). Many of the effects of different shift sequences in imagery perspective (first-to-third vs. third-to-first) on emotion (e.g., Berntsen & Rubin, 2006a; Robinson & Swanson, 1993) are also paralleled in research on pronoun use. For instance, Gu and Tse (2016) found that an instructed shift from first-person to third-person pronouns attenuated the emotional intensity of both pleasant and unpleasant memories, whereas the shift from third-person to first-person had no effect on ratings of intensity. Changes in pronoun use also led to changes in imagery perspective (e.g., first-person pronoun use incited first-person imagery).

This idea of an optimal order to narration is supported by research showing that people benefit from the repeated retelling of events (Pennebaker, 1997), and that shifts in perspective from first- to third-person (Park, Ayduk, & Kross, 2016), or shifts in narrative processing from external (what happened) to internal (what is felt) and reflexive (what it means; Angus & Greenberg, 2011), accounts for these effects. Given memory-induced emotion is subject to shifts in pronoun use (Gu

& Tse, 2016), characterizes appraisals of closure (Beike & Wirth-Beaumont, 2005), and relates to the development of new insights about events (Kross & Ayduk, 2011), then narrative perspective shift sequences should inform attributions of closure. Study 3 examined, in part, how different orders of perspective, in mental imagery and pronoun use, inform closure and emotion for unresolved event-memories, with hypotheses gleaned through the role of space context in memory.

To illustrate, I refer to Rubin and Umanath's (2015) theatre metaphor, in which memories of events consist of a stage on which the remembered event is played out – the 'where' for the 'what' to take place (see also, Hassabis & Maguire, 2007). When people attempt to understand negative events, they tend to visualize them through their own eyes as if it were happening all over again (Grossman & Kross, 2010; Verduyn, Van Mechelen, Kross, Chezzi, & Van Bever, 2012). Indeed, memories are likely to contain more first-person relative to third-person imagery (D'Argembeau & Van der Linden, 2004). Individuals may therefore be inclined to "take the stage" where they can view and describe the scene from a perspective as actor (first-person). Conversely, a third-person perspective, affords people a seat in the audience where they can view and describe what unfolds on stage, from a distance and relative to the spatial context of the event. It may very well be this seat - away from the stage rather than on it - that fosters the type of detached observation and objective appraisal akin to that of a spectator or critic. Simply put, the development of new memorial attributions first requires the objectification of event-memories so that they may be perceived as entities distinguishable from present self-experience.

To this end, imagery perspective and pronoun use can be regarded as relatively simple manipulations of mental construal, and hence, psychological distance: a third-person perspective is associated with more abstract and distal representations of events whereas a first-person perspective is associated with more concrete and proximal representations (Libby & Eibach, 2011b). Imagery perspective has also been shown to be closely related to perceptions of self-change versus self-

stability (self-consistency; Libby & Eibach, 2002; Libby, Eibach, & Gilovich, 2005; Sutin & Robins, 2010), a focus on the broader significance versus concrete details of events (mental focus; Libby & Eibach, 2009, 2011a), how long ago events occurred (objective temporal distance; e.g., Berntsen & Rubin, 2006a; Kihlstrom & Harackiewicz, 1982; Talarico, LaBar, & Rubin, 2004), and how far away events feel from present experience (subjective temporal distance; Gu & Tse, 2016; Libby & Eibach, 2011b; Wilson & Ross, 2003).

Thus, there are many factors that correspond to different levels of event construal, and hence, could be regarded as potential determinants of psychological distance. It may be that combinations of methods of construal, via their influence on psychological distance, differentially inform appraisals of closure. If memory-induced emotion is a marker of closure (Beike & Wirth-Beaumont, 2005), then variables known to affect emotion at retrieval, including imagery perspective, pronoun shifts, temporal distance, and mental focus should also influence perceived closure. There are, however, discrepancies in the literature concerning one of the most widely researched methods of construal – imagery perspective – that predict different effects on emotion.

Theoretical and empirical discrepancies. Research differs in suggesting adaptive and maladaptive functions of imagery perspective, most prominently with regard to third-person imagery. For instance, a third-person perspective has been associated with adaptive outcomes in terms of emotion regulation, self-understanding, social cognition, and future planning (Libby & Eibach, 2011b). Further, the use of a third-person perspective for distressing memories has been suggested to foster a sense of separateness amongst past and present selves, which supports favourable current self-views and an ability to face such memories with less intrusive re-experiencing of unpleasant emotions (Sutin & Robins, 2010; Wilson & Ross, 2003). For instance, Lawrence (1990; as cited in Wilson & Ross, 2003) posited that narrating events in the third-person allows individuals to adopt “a more dispassionate, detached, retrospective view” (p. 97) of the self,

by way of reducing the psychological threat of recollected experience. Conversely, other research indicates that a third-person perspective for trauma memories is related to problematic outcomes like cognitive avoidance and PTSD symptoms, greater memory intrusions, and increased rumination (Berntsen et al., 2003; Williams & Moulds, 2007). Relatedly, Finnbogadóttir and Berntsen (2014) found third-person recall to be associated with greater negative affect and maladaptive thinking patterns including excessive worry or repetitive fear-based thinking. Further, Williams and Moulds (2007) highlight the adaptive value of the first-person perspective as an aid in fostering the re-engagement and re-processing of the emotional features of memories, not afforded by the third-person perspective.

Kross and Ayduk (2011) refer to these discrepant effects as the “self-reflection paradox”: On the one hand, reflecting on negative emotions can lead to physical and mental health benefits (e.g., Pennebaker, 1997; Wilson & Gilbert, 2008), but it can also incite ruminative thinking, which can exacerbate distress (e.g., Gruber et al., 2011; Nolen-Hoeksema et al., 2008). Other research distinguishes adaptive versus maladaptive types of repetitive thinking (i.e., reflection motivated by curiosity and openness vs. rumination motivated by fear; Trapnell & Campbell, 1999; Watkins, 2008). Perhaps then, adaptation to unpleasant events in memory, as indexed by appraisals of closure and reduced emotional arousal, may not depend on the amount of thinking devoted to the events per se, but rather, on whether such thoughts are considered to be a matter of concern.

There are also inconsistencies in the literature regarding the function of imagery perspective in regulating cognition and emotion. I consider three main views, all of which rely on some form of self-evaluation and/or motive: *self-distance*, *self-salience*, and *self-integration*. To situate this discussion, I begin with the facets of self proposed by William James (1890/1950): The “I”, or experiential self (self as subject of thought, self as knower), refers to the experience of the self as engaging with the immediate environment (Legrand & Ruby, 2009). Conversely, the “Me”, or

conceptual self (self as object of thought, self as known), regards a general self-awareness that includes theories of personality, values, life themes, and goals (Conway, 2005; McAdams, 2001).

Self-distance. As previously reviewed, third-person imagery has been suggested to serve a generalized self-distancing (e.g., Holmes & Mathews, 2010; Kenny et al., 2009) or “dispassionate observer” function (Sutin & Robins, 2008) in that it psychologically removes the self that reasons about a past event from the self that has experienced it, thereby diminishing associated emotion and facilitating reflection on the meaning (why) rather than the process (how) of the event (Kross & Ayduk, 2011; Fujita, Henderson, Eng, Trope, & Liberman, 2006). To this end, Ayduk and Kross (2010) have shown that a self-distanced (third-person) perspective on negative events reduced distress, whereas a self-immersed (first-person) perspective had the reverse effect (see also, Berntsen & Rubin, 2006a; Kross & Ayduk, 2008; Kross et al., 2005; McIssac & Eich, 2002; McNamara, Benson, McGeeney, Brown, & Albert, 2005; Robinson, 1996; Robinson & Swanson, 1993; Williams & Moulds, 2007). Note that the term ‘distancing’ as used by Ayduk and Kross differs from the current notion of psychological distance in that it specifically refers to a removed view of past experience and regards the self as it relates to recollected concrete experience; thus, separation from self in this context necessarily refers to separation from the Jamesian “I”.

Self-salience. According to the self-salience view, a third-person perspective serves to *increase* emotional response during recall by binding the current self with the recalled self, and by increasing visual and emotional attention on the self (e.g., Terry & Barwick, 1995; 1998). In line with gestalt figure-ground principles (Duval, Silvia, & Lalwani, 2001), third-person perspective is proposed to increase self-awareness by moving the self into the foreground where it occupies the majority of one’s mental visual field. This appears to apply to memories involving a focus on the self or self-conscious emotions (e.g., shame, embarrassment; D’Argembeau & Van der Linden, 2008; Nigro & Neisser, 1983).

Self-evaluation. According to Sutin and Robins (2008), support for these opposing accounts (i.e., that compared to a first-person perspective, a third-person perspective blunts vs. magnifies emotional arousal) depends on self-evaluation motives at retrieval. Individuals seek to enhance the current self by disowning events, or features of events, that reflect poorly on them (*self-enhancement motive*; Leary, 2007; Sanitioso, 2008; Sedikides & Gregg, 2003). However, they are also inclined to verify congruence amongst past and present selves (*self-verification motive*; Libby & Eibach, 2002; Libby et al., 2005; Sutin & Robins, 2008). Threats to self-consistency (e.g., an event-memory involving an entirely different version of the self) prompts efforts to try to make sense of how the past event and associated self relates to current self-views (Conway, 2005). Self-enhancement and self-verification motives can work together to promote a coherent self-understanding that spans time (a broader motive to achieve *self-coherence*; McAdams, 1997; Vinitzky-Seroussi, 1988). However, self-enhancement and self-verification can also conflict, resulting in what Swann and colleagues call a “cognitive-affective crossfire” (Swann, Griffin, Predmore, & Gaines, 1987, p. 882). For example, asking someone with low self-esteem to recall a past failure might satisfy the self-verification motive but not the self-enhancement motive. In such cases, people tend to choose cognitive verification or consistency over affective enhancement. For instance, low self-esteem individuals tend to ignore positive information in favor of attending to negative information that is consistent with their current self-views (Swann et al., 1987).

Self-integration. Self-distancing versus self-salience functions of imagery perspective may depend upon perceived discrepancies between past and present selves (Sutin & Robins, 2008). Libby and Eibach (2011b) acknowledge the dual-faceted self in contending that the function of imagery perspective is determined not only by experiential self-separation, but also by conceptual self-integration. Specifically, first-person imagery is thought to form the basis for the experiential self, whereas third-person imagery is thought to form the basis for the conceptual self. Thus, rather

than solely causing people to adopt a detached interpretation of an event, third-person imagery can also prompt integration within a broader framework of general self-views, and emotional reactions reflect ensuing subjective meanings. This aligns with an aim to acquire a coherent understanding of the self (self-coherence) rather than to disown events that undermine the present self (self-enhancement). Indeed, a theory of oneself as having changed versus remaining stable has been shown to predict imagery perspective irrespective of valence: self-stability incited first-person imagery and self-change incited third-person imagery for both positive and negative events (Libby & Eibach, 2011a).

It follows, then, that in order for a third-person perspective to promote adaptive coping and regulation, an adaptive self-theory (e.g., change vs. stability) and mental focus (e.g., self-narrative significance vs. concrete details) must be specified to guide the emotional and meaning-making process that occurs. In other words, Libby and Eibach's (2011b) account suggests that support for self-distance and self-salience should depend on individuals' currently operating theories of change or stability in the self since the occurrence of the event in question.

The current studies examined whether and which of these accounts of imagery perspective could extend to a narrative perspective shift paradigm. Returning to the theatre metaphor to explain the asymmetric effects of perspective shifts on emotion (e.g., Gu & Tse, 2016), it may be that the sequence of perspectives from stage (first) to seat in the audience (third), but not seat to stage, fosters a progression toward abstraction, via perceptions of greater distance (self-distancing view) or change in the self (self-integration view), which in turn tempers emotional reactivity upon recall. On the other hand, according to the self-salience view, such a shift could magnify memory-induced emotion. In any case, given the adverse effects of unresolved event-memories on current experience, it is worthwhile to examine how methods of construal can be combined to inform resolution, and to explore whether such strategies serve adaptive or maladaptive functions.

Overview of the Present Studies

The overarching aim of this research was to investigate whether the ordering of narrative perspective shift sequences (first-to-third vs. third-to-first) influence appraisals of unresolved events in terms of psychological closure and aspects of emotion (valence, intensity, and reactivity). Effects 1-2 days following the intervention were also explored based on discrepancies in the literature regarding carry-over effects of writing interventions. For instance, Park et al. (2016) reported greater effects of spontaneous distancing (third-person) 1 day following an expressive writing task, whereas Gu and Tse (2016) demonstrated effects immediately after a guided shift in narrative pronoun use from first- to third-person. It is less clear, however, whether these narrative shift effects remain in the days that follow the intervention. Given methods of describing memories can influence closure at retrieval (Beike & Wirth-Beaumont, 2005) along with the type of information that is later recalled (Dudukovic, Marsh, & Tversky, 2004; Tversky & Marsh, 2000), narrative perspective shifts were expected to influence ratings of closure at the follow-up 1-2 days later.

Sound investigation of factors that influence or are associated with psychological closure, however, first required a validated measure. That is, although closure had been proposed as an emotionally-tagged memory phenomenon (Beike & Wirth-Beaumont, 2005), operationalization has varied across prior studies and existing scales make no reference to memory-induced experience. Thus, the construction and validation of a measure of psychological closure was the focus of Studies 1 and 2. Study 3 examined the effects of narrative perspective shift sequences and mental focus (coherence vs. experience) on appraisals of closure and emotion (intensity, valence, and reactivity), and whether effects could be accounted for by changes in subjective distance or self-change. Ancillary aims were to explore carry-over effects and relations amongst narrative perspective, cognitive avoidance, and perceived centrality of events to identity and life-story.

CHAPTER 2

PCS DEVELOPMENT

Although psychological closure (as conceptualized by Beike & Wirth-Beaumont, 2005) has been associated with beneficial physical and psychological health outcomes (e.g., Beike, 2002; Beike et al., 2004), the concept has never been subjected to rigorous measurement development and construct validation. Closure has also been inconsistently operationalized across studies (e.g., Beike, Adams, & Wirth-Beaumont, 2007; Savitsky, Medvec, & Gilovich, 1997) and reviews of related constructs (e.g., coherent positive resolution; Pals, 2006) suggests conceptual overlap. Given closure is related to appraisals of events (e.g., as finished) and the experience of events upon retrieval (e.g., reduced emotional reactivity; e.g., Beike & Wirth-Beaumont, 2005; Skitka, Bauman, & Mullen, 2004), the conceptual scope of closure warrants reconsideration. Indeed, earlier notions of closure regard such aspects as inherent to the construct, rather than as potential predictors or outcomes of it (e.g., Albert, 1983). The objective of Study 1 was to elucidate more precise boundaries of this broader conceptualization of psychological closure via the development of a valid self-report measure for use with non-clinical populations and a range of autobiographical memories, titled the Psychological Closure Scale (PCS). Clark and Watson's (1995) approach to scale construction (as informed by Lovinger, 1957) was used to derive a theoretically and empirically based conceptualization of closure based on (1) a thorough review of prior attempts to operationalize closure and related constructs, (2) the formation of a broad and representative item pool, and (3) an iterative process involving item creation, testing, deletion, or refinement.

Conceptualizing Psychological Closure

The concept of psychological closure has interested researchers and clinicians for some time, particularly in relation to traumatic or life-altering experiences (e.g., Albert, 1983; Gold & Faust, 2002; Hamber & Wilson, 2002; Skitka et al., 2004). The term has its origins in the Gestalt

principle of closure, which describes the human tendency to automatically synthesize missing units into perceived wholes so as to complete visual and auditory forms. This organizational motive extends to behavioural and psychological phenomena, as in “the act, achievement, or sense of completing or resolving something” (VandenBos, 2015, p. 196). In common parlance, closure signifies a desirable end-state following a stressful event, conflict, or problem (e.g. a relationship dissolution), and often entails an active search for missing information (e.g., to understand why or what to do about it). In the context of psychotherapy, closure is said to be achieved when clients have reconciled a psychological or relational issue (however, see Boss & Carnes, 2012, regarding a ‘myth’ of closure for ambiguous loss). Perhaps the most comprehensive social-cognitive definition of psychological closure comes from Albert (1983, p. 159):

The concept of closure is essential to the concept of change, for given the finite capacity of human beings, some sense of closure seems to be necessary to make possible new activities. But a sense of psychological closure to temporal events implies more than that they have ended; it implies a sense of harmonious completion. It is this sense of harmonious completion, of balance and equilibrium restored, of tension reduced, that allows the pursuit of new challenges and activities.

Albert outlined four complimentary models of closure that together highlight the following 18 characteristics: change or transition, completion, acceptance, equilibrium, tension reduction, summation (historicizing), symbolic retention, temporal continuity (past to future), rationalizing, shifting attention to other concerns, expressing positive sentiments, optimistic forecasting, temporal embeddedness (i.e., a beginning and an end in history; a complete story), importance reduction, distance from self, and historical remoteness (temporal distance, pastness).

Notably, Albert (1983) acknowledged the role of separation between mental representations of an event and the present self while more contemporary definitions make no such reference. As it pertains to autobiographical memories, closure has been likened to a sense that an event is sufficiently understood, complete, and part of the past (Beike et al., 2007). Importantly, open and

closed memories do not refer to categorically different events (e.g., a parental divorce may be open for some but closed for others), and in fact, they can be regarded as equally emotionally intense and important (Beike et al., 2004). Beike et al. (2010) claim that a “sense of closure is not inherent in the person, or in the experience, but rather is a consequence of the construction of the autobiographical memory at recollection” (p. 41). Therefore, thought processes and mental representations that follow an event, rather than the qualities of the original experience, are critical to appraisals of closure. In line with this view, prior research has shown that memorial characteristics such as emotional intensity, valence, and memory age, are associated with attributions of closure: Relative to closed memories, open memories tend to be experienced as more unpleasant or agitating (Beike & Wirth, 2000) and emotionally arousing (Beike et al., 2007; Beike & Wirth-Beaumont, 2005), to feel closer to the present, (Rim, Trope, Liberman, & Shapira, 2013), and to incite a need to take action (Beike et al., 2007).

Taken together, the preceding research suggests that there are many important features of psychological closure that coalesce into a broad preliminary definition:

A process of mentally segmenting, sealing off, or containing part of one’s past in subjective space and time; appraising it as complete, concluded, resolved, newly or more completely understood, distant from present experience, belonging more to the past, and containing fewer contextual and perceptual details; and experiencing it as less emotionally arousing and unpleasant. Finally, it is accompanied by a reduced motive to take action, either physically (e.g., searching for information) or cognitively (e.g., devoting more attention to the event). Appraisals of psychological closure can, therefore, refer to the event as it is recalled, the quality of the mental representation, or the felt experience during recollection.

This definition of closure intentionally excludes objective forms of resolution and assumes that subjective appraisals vary independently of objective indicators. For example, the legal sentencing of one’s abuser may not necessarily reflect or foster a sense of resolution for the past transgression. Relatedly, people’s memories are not assumed to be entirely veridical representations of the past. With the passage of time, event representations can change as a function of forgetting,

reconstruction, and increased reliance on scripted knowledge (James, 1890/1950; Robinson & Clore, 2002). Thus, appraisals of closure necessarily refer to the temporally bound mental representation and the rememberer's experience at retrieval.

It is important to clarify the concept of closure because it is implicated in adaptive physical and psychological outcomes (e.g., Beike et al., 2004). Open memories that arouse negative emotions, whether such arousal derives from the contents of the remembered event or the experience of it as unresolved, hold special status in the summoning of cognitive, emotional, and behavioural efforts. Individuals devote great energy to closing memories so they can re-direct their attention to other concerns. People also tend to ruminate on unresolved events which, without a framework to guide the meaning-making process, is known to be ineffective (Nolen-Hoeksema et al., 2008). Further, individuals tend to better remember incomplete tasks than complete tasks (Lewin, 1927), and they are likely to regret and think about inactions more than actions (Zeigarnik effect; Zeigarnik, 1935), where inactions are associated with lower closure (Savitsky et al., 1997). Generally, people are highly motivated to resolve uncertainty and to reduce the tension that comes along with it (Hogg 2000; Tobin & Raymundo, 2010; Wilson, Centerbar, Kermer, & Gilbert, 2005)

From an evolutionary perspective, emotion-driven tendencies toward closure can be adaptive. Open memories arouse strong emotions in the present (Singer & Salovey, 1993), which can interfere with problem-solving and goal-attainment. Further, reaching meaningful conclusions about events helps people to draw on the experience when imagining, predicting, and planning for the future (Addis, Pan, Vu, Laiser, & Schacter, 2009). For example, understanding the cause of a serious car accident can offer preventative actions that aid survival. Given human predispositions to avoid unpleasant experiences, it is perhaps not surprising that there are far more words for negative than positive emotions, that positive outcomes are more readily accepted compared to negative

outcomes (Kahneman & Varey, 1991), and that negative emotions fade faster over time relative to positive emotions (Holmes, 1970; Walker, Vogl, & Thompson, 1997).

The processing of emotion in memory also points to adaptive functions. Through associative memory-mood networks, memories can incite emotional states that are congruent in valence (Bower, 1981), and these states can, in turn, activate behavioural tendencies (e.g., Frijda, Kuipers, & ter Shure, 1989; Izard, 1991). When memories are inconsistent with the emotional tone of the environment, it can result in inappropriate behaviour. For instance, laughing at a car accident victim as they recount their near-death experience is likely to hinder relational understanding. According to Conway and Pleydell-Pearce (2000), retrieval systems reduce emotional detail in memory to protect against the effects of re-experiencing, so emotions can reflect what is happening in the present rather than what happened in the past; this agrees with research showing a shift over time toward greater reliance on semantic knowledge about emotion rather than episodic memory (Robinson & Clore, 2002) and more localized processing of emotion in the brain (Fink et al., 1996).

In sum, the current definition of *psychological closure* captures many relevant aspects that have been theorized or investigated across multiple domains of research. Measurement development, construct validation, and further research on closure offers many important theoretical and practical implications that may inform understanding of adaptive human functioning.

Existing Measures of Psychological Closure and Related Constructs

Measures of closure. Psychological closure has been operationalized in many ways, a number of which are ostensibly similar to other constructs. Definitions vary depending on the target event and subject of interest. For instance, *closure* has been used to refer to aspects of perception (e.g., contour closure; e.g., Elder & Zucker, 1993; Pemberton, 1952; White, 1954), symbolic resolution in post-conflict societies (i.e., symbolic closure; Hamber & Wilson, 2002), political equilibrium following acts of terrorism (e.g., Skitka et al., 2004), psychological adaptation in end-

of-life populations (i.e., life closure; e.g., Dobratz, 2004), task completion (e.g., Savitsky et al., 1997), goal-fulfillment (i.e., regulatory closure; e.g., Baas, De Dreu, & Nijstad, 2011), consumer decision-making (i.e., choice closure; Gu et al., 2013), person-computer conversational transactions (e.g., Miller, 1968), watching satisfying TV series finales (e.g., Nussbaum, 2013), relational resolution (e.g., Eads, 2008), dispositional motives (i.e., need for closure; Webster & Kruglanski, 1994), and dispositional mindedness (i.e., open- vs. closed-minded; Kruglanski, 2004; Onraet, Van Hiel, Roets, & Cornelis, 2011). Related constructs include *reconstrual* (deriving meaning from negative events; Kross, Gard, Deldin, Clifton, & Ayduk, 2012) and *resolution* of stressful life events (e.g., Harnish, Aseltine, & Gore, 2000; Pals, 2006; Reynolds & Turner, 2006; Turner & Avison, 1992), including interpersonal conflict (e.g., Makinen & Johnson, 2006; Singh, 1994) and sexual abuse victimization (Wright, Crawford, & Sebastian, 2007).

Further, most studies attempting to assess closure have relied on measures with unknown psychometric properties. These brief, often single item, measures do not thoroughly reflect definitions of the construct, they used items with different rating scales, or they employed subsets of items with no attempt at validation. For instance, Skitka et al.'s (2004) closure items refer to a readiness to "move on" and "turn my attention to other problems," (p. 749), while Beike and Wirth-Beaumont (2005) made no reference to shifts in attention or cognitive spatial direction. Beike and colleagues (Beike et al., 2007; Beike, Markman, & Karadogan, 2009) added an item to their closure scale pertaining to a desire to "figure out why the experience happened" (p. 383), while other studies used subsets of these items (e.g., Savitsky et al., 1997). Additionally, Savitsky et al. (1997) contend that closure (or a lack of open-endedness) is characterised by resolution, psychological completeness, reduced action, less rumination, and a sense of pastness, which they liken to "ancient history", "water under the bridge", and "moving on" (pp. 249-250); however, their items made no reference these notions. Moreover, Beike and colleagues have argued that open memories are

characterized by “a highly emotional representation” (Beike et al., 2004, p. 146), that closure is a “subjective state that arises in part from the extent to which this resulting autobiographical memory is emotional” (Beike & Wirth-Beaumont, 2005, p. 575), and that other properties of memories and external states (e.g., finished or unfinished actions) determine closure. Their scale (Beike et al., 2007), however, did not reflect these ideas; something this study seeks to explore. Noteworthy, Beike and Wirth-Beaumont (2005) assert that closure pertains to the experience at retrieval rather than encoding, however, the cues they used to elicit open and closed event-memories pertained only to the experience at encoding. Further, while their scale assessed explicit appraisals of closure for events, there may be less explicit items that better reflect closure, for instance, those assessing experiential changes, attentional changes, felt distance, or a desire to act in search of resolution.

Other measures of related constructs, like coherent resolution, entail experimenter ratings of participant accounts rather than participants’ self-report ratings (e.g., Adler & Poulin, 2009, King et al., 2000; Pals, 2006). These coding schemes reflect the extent to which individuals are perceived as no longer “stuck” in the consequences of the experience; that is, their stories reflect “a sense of closure, a capacity to experience positive emotion, and a lack of unresolved issues and emotions” along with a “definitive, resolved ending” (Adler & Poulin, 2009; p. 915). Additionally, these authors distinguish closure from denial and numbing by the presence of “threat, struggle, or effort” (p. 915). They also note that past-tense verbs indicate more resolution relative to present-tense verbs, which suggest ongoing struggle. The concept of closure also appears to be embedded in definitions of *coherent positive resolution* (Pals, 2006): “the construction of a coherent and complete story of a difficult event that ends positively, conveying a sense of emotional resolution or closure” (p. 1082). Empirically demonstrated indicators of coherent positive resolution include emotional resolution, a coherently structured conclusion, and a positive narrative ending (Pals, 2006). The use of unvalidated measures of closure and operational inconsistencies within and

across studies impedes interpretation, replication, and a fair comparison of results. As such, there is a clear need to better operationalize psychological closure.

Based on the preceding review, the current measure of psychological closure was expected to include items pertaining to the following 10 factors: (1) explicit closure/completeness, (2) event understanding, (3) felt distance, (4) emotional deactivation, (5) less preoccupation, (6) experiential change, (7) reduced need to act, (8) reduced negative reactions, (9) increased positive reactions, and, (10) coherence/connectedness. Per Watson and Clark (1995), the initial item pool (see Appendix B) was created with the intent of (a) capturing a comprehensive set of items that extend beyond the bounds of my own theoretical view of the construct, and (b) including content expected to be tangential to the core construct (e.g., self-understanding, memory characteristics); that is, I aimed to err on the side of overinclusion.

In sum, psychological closure has been operationalized inconsistently across studies and existing measures have not been validated. Elucidating the construct of closure involves the development of a sound measure, hereafter referred to as the Psychological Closure Scale (PCS).

Study 1 Methods

Study 1 Participants

Males have been found to rate memories as more closed relative to females (Beike & Wirth-Beaumont, 2005), therefore, it was important to seek relatively even sex/gender distributions. Participants were recruited through Amazon Mechanical Turk (MTurk), a widely used platform for data collection that yields more demographically heterogeneous samples compared to undergraduate samples (Paolacci & Chandler, 2014). Participant eligibility was assessed using Turkitron (Foster, Michael, & Garry, 2014), an online tool that aids in study management by assessing necessary preconditions for participation in the study (i.e., that Turk workers are human respondents from North America who have never completed the study) before redirecting them to

the survey link. This method of participant recruitment was used for two successive iterations of model testing using independent samples. Study 1a consisted of 284 cases and Study 1b consisted of 317 cases, meeting sample size recommendations for factor analysis (Comrey, 1988; Guadagnoli & Velicer, 1988). Refer to Table 1 for demographic information.

Table 1

Study 1 Participant Demographics

		Study 1a	Study 1b
	<i>N</i>	284	317
Age	<i>M</i>	35.71	36.24
	<i>SD</i>	10.82	11.60
	Range	18 – 76	18 – 81
Gender/Sex	Female	50.4%	53.3%
	Male	48.6%	46.4%
	Other/Not Specified	1.1%	0.3%
Ethnicity	White, Caucasian	77.5%	76.3%
	Black, African	6.7%	5.4%
	Hispanic/Latino	3.9%	3.8%
	Asian	8.1%	9.1%
	Multiethnic	1.8%	2.8%
	Indigenous	0.4%	0.3%
	Other/Not Specified	1.8%	2.2%
Education	Undergraduate University, College, Associate	71.5%	71.6%
	Graduate University, College	15.1%	15.1%
	High School	12.3%	12.3%
	Vocational, Trades	1.1%	0.9%

Study 1 Materials and Measures

Psychological closure. The primary measure consisted of the preliminary 67-item pool for the PCS. Each potential factor consisted of 4-6 items. Items were informed by existing measures that query closure and related constructs (Beike & Wirth-Beaumont, 2005; Kross et al., 2012; Savitsky et al., 1997; Skitka et al., 2004; Turner & Avison, 1992). For instance, Beike and colleagues' measure is based on a principle of lost opportunity and assesses individuals' sense of

completion or resolution regarding a life regret (Beike et al., 2007; Beike & Wirth-Beaumont, 2005). Two of six items refer to the event as ‘unfinished business’ or a ‘closed book’ (derived from Savitsky et al., 1997). Items pertaining to features of memories, including valence, intensity, coherence, and subjective distance (drawn from Beike & Wirth-Beaumont, 2005; Johnson, Foley, Suengas, & Raye, 1988; Rubin, Schrauf, & Greenberg, 2003) were also included due to their suggested relation to closure (Beike & Wirth-Beaumont, 2005). Additional items were derived from narrative coding schemes (Adler & Poulin, 2009; Pals, 2006) and other descriptions of closure in the literature (e.g., Albert, 1983; Gu et al., 2013). Items employed Likert scales anchored, 1 (*completely disagree*) to 7 (*completely agree*).

Ancillary items. Four validity check items (adapted from Oppenheimer, Meyvis, & Davidenko, 2009) were included throughout the survey to assess attention to the study (“Check the [first, third, second, last] box”; Appendix C). Two open-ended questions were included to provide participants with the option of further describing their event and/or providing feedback about their experience in the study (Appendix D). A demographics questionnaire querying age, sex/gender, race/ethnicity, and education using open-response fields was also included (Appendix E).

Study 1 Procedure

The study was completed online. Prior to beginning the study, participants indicated informed consent via the submission of an online consent form. All procedures received ethics clearance through the University of Windsor’s Research Ethics Board.

A pilot study ($N = 25$) was conducted to assess completion time, adverse reactions, and to ensure the cues and items were well-understood and elicited sufficient variance in responses. Due in part to the greater prevalence of closed vs. open memories (Beike & Wirth-Beaumont, 2005), individuals were asked to identify one open memory and one closed memory, counterbalanced, and probed according to appraisals of resolution (Appendix F). Since closure has been associated with

memory age (e.g., Crawley, 2010), participants selected events dated within 12 months of each other (Beike & Wirth-Beaumont, 2005). The focus and purpose of the scale was to assess closure for unresolved event-memories; hence, this cueing method was used to acquire a range of open memories that varied in content and degree of closure.

After providing a short title or description for each event, participants completed the PCS items in a randomized fashion (to manage order effects), the validity items, and the demographics questionnaire. The survey took about 17 minutes to complete, on average (for Study 1a, $M = 16.99$, $SD = 12.40$; for Study 1b, $M = 16.78$, $SD = 9.47$). This procedure was repeated using two separate samples on two separate occasions to reach a final factor structure for the PCS: Study 1a tested the original closure item pool and Study 1b tested the revised pool.

Study 1 Results

For each Study 1a and Study 1b, the data were first screened for statistical assumptions (absence of univariate and multivariate outliers, univariate and multivariate normality, absence of multicollinearity/singularity, linear relationships amongst factors and variables, sample heterogeneity, and absence of non-random missing data; Yong & Pierce, 2013). The data were also reviewed to ensure participants followed the event cue instructions and correctly responded to the four validity check items. The reporting of results was guided by Jackson, Gillaspay, and Purc-Stephenson (2009), and Schreiber, Stage, King, Nora, and Barlow (2006). Refer to Table 2 for descriptive statistics of composite closure ratings by event type and order for Studies 1a and 1b.

Table 2

Descriptive Statistics for Closure Ratings by Order Condition and Event Type for Studies 1a and 1b

	UR Order (Study 1a $n = 150$) (Study 1b $n = 160$)				RU Order (Study 1a $n = 134$) (Study 1b $n = 157$)			
	Unresolved Events		Resolved Events		Unresolved Events		Resolved Events	
	M [95% CI]	SD	M [95% CI]	SD	M [95% CI]	SD	M [95% CI]	SD
Study 1a								
Closure	3.71 [3.56, 3.86]	0.94	5.36 [5.22, 5.49]	0.83	3.39 [3.23, 3.54]	0.90	5.34 [5.20, 5.48]	0.85
Study 1b								
Closure	3.71 [3.56, 3.86]	0.96	5.45 [5.33, 5.58]	0.81	3.44 [3.30, 3.59]	0.91	5.28 [5.17, 5.43]	0.83

Notes. RU = resolved-unresolved for those who selected and rated a resolved event prior to an unresolved event. UR = unresolved-resolved for those who selected and rated an unresolved event first. Non-overlapping CIs for unresolved events are indicated in **bold**.

Study 1a

Data screening. For Study 1a (original $N = 295$) unresolved events, an examination of anti-image correlation matrices indicated sampling adequacy for the individual variables and sphericity (all values > 0.25 ; KMO measure of sampling adequacy = 0.93; Bartlett's Test of sphericity $\chi^2(2211) = 12558.25, p < .0001$), and all skewness and kurtosis values were acceptable (between ± 2 and ± 3 , respectively). Missing data constituted 1-3% of data for the closure items and were found to be missing completely at random, Little's MCAR $\chi^2(15531) = 15294.19, p = .911$. Missing data were replaced using expectation maximization (Tabachnik & Fidell, 2007). Findings reported below did not differ based on non-imputed versus imputed data, hence the latter were used in subsequent reporting. Three cases were removed due to inaccurate responding to the validity items, four cases were removed for extremely low variability in responding (i.e., failing to use the full range of the scale; cut-off was 3 SD s above and below $M_{SD} = 1.97$), and four cases were removed based on multivariate outlier estimates using Mahalanobis distance, using $\chi^2(67, 288) \geq 143.42, p < .0001$. The final sample consisted of 284 cases.

Analyses. A two-way ANOVA was used to examine the influence of order on closure item ratings for resolved and unresolved events. Results indicated that order did not significantly influence responding for resolved events, $F(1, 282) = 0.03, p = .872; M_{diff} = 0.02, 95\% \text{ CI } [-0.18, 0.21], d_{unb} = 0.02 [-0.21, 0.25]$, but did for unresolved events, $F(1, 282) = 8.23, p = .003; M_{diff} = 0.32, [0.10, 0.54], d_{unb} = 0.35 [0.11, 0.58]$. Those who selected an unresolved event first indicated higher average ratings on the closure items relative to those who selected it second, thus, the cueing method used produced sufficient response variability for unresolved event-memories.

As the objective of Study 1a was to probe the underlying factor structure of the construct of closure based on a set of observed variables that were expected to be related, without imposing a preconceived structure, exploratory factor analysis (EFA) with principle axis factoring and direct oblimin rotation was used in SPSS Version 25 (2017, IBM Corp). This contrasts the aim of principal components analyses (PCA), which is to reduce the number of variables into a smaller set of principal components that account for the same variance. EFA has a long tradition of being associated with measurement and construct validation (Clark & Watson, 1995).

Factors were identified based on the convergence of multiple metrics, including an examination of eigenvalues (≥ 1 ; Kaiser, 1960), scree plot (Cattell, 1978), parallel analysis (above intersection amongst observed and nonsense solutions: Horn, 1965), and minimum average partial (MAP) test (above numerical directional change in average squared partial correlations; Velicer, 1976). Refer to Table 3 for the list of items comprising the closure item pools, along with exclusions, inclusions, and revisions.

Table 3

Comprehensive List of Items Included in Studies 1a and 1b for the Creation of the Psychological Closure Scale (PCS)

	Study 1a Items (Original Pool)	Study 1b Items (Revised Pool)
1	I have complete closure on this event	I have complete closure on this event
2	I have made peace with this event	I have made peace with this event
3	This event feels settled or put to rest	This event feels settled or put to rest
4 ^b	I have moved on from this event	I have moved on from this event
5	The event is like a 'closed book' to me	The event is like a 'closed book' to me
6 ^a	The event is 'unfinished business' for me (R)	
7 ^a	The pieces of this event fit together like a complete story with a beginning, middle, and end	
8 ^a	This event comes to my mind as disconnected scenes, facts, or experiences (R)	
9 ^b	This event is part of a meaningful story for me	This event is part of a meaningful story for me
10 ^b	This event is meaningfully connected to other events in my past, present, and future	This event is meaningfully connected to other events in my past, present, and future
11	I have reached a meaningful conclusion about this event	I have reached a meaningful conclusion about this event
12	I have a clear understanding of the event	I have a clear understanding of the event
13	I am confused about this event (R)	I am confused about this event (R)
14 ^b	I have unanswered questions about this event (R)	I have unanswered questions about this event (R)
15	I can make clear sense of what happened	I can make clear sense of what happened
16 ^b	I just wish I could figure out why the event happened (R)	I just wish I could figure out why the event happened (R)
17 ^a	I can make sense of this event in relation to my identity	
18 ^a	I can make sense of this event in relation to my life story	
19 ^{bc}	I have grown a lot from this event	This event helped me to grow as a person
20 ^b	This event is part of who I am	This event is part of who I am
21 ^{bc}	I understand how this event affected my personal development	This event helped to shape the kind of person I am today
22 ^b	This event has taught me an important lesson about myself	This event has taught me an important lesson about myself
23 ^c	I can now turn my attention to other problems and concerns	This event is keeping me from attending to other things (R)
24 ^a	Now I can stop thinking about this event	
25 ^c	I am not preoccupied by this event	I am preoccupied by this event (R)
26 ^c	This event will stay stuck in my mind for a long time (R)	I am mentally 'stuck' on this event (R)
27	This event is taking a lot of my mental energy (R)	This event is taking a lot of my mental energy (R)
28 ^a	I want to stop thinking about this event but I can't (R)	
29 ^c	I feel the need to replay the event over and over in my mind until I solve it (R)	I feel like I have to go over this event again and again in my mind (R)
30 ^a	I need more time to completely move on from this event (R)	
31 ^a	I feel ready to move on from this event	
32	I feel the need to do something to resolve this event within myself (R)	I feel the need to do something to resolve this event within myself (R)

33	I feel the need to do something to resolve this event with others (e.g., to make amends or to get revenge) (R)	I feel the need to do something to resolve this event with others (e.g., to make amends or to get revenge) (R)
34	I now think differently about the event	I now think differently about the event
35	I have a new understanding of the event	I have a new understanding of the event
36	The meaning this event holds for me has changed	The meaning this event holds for me has changed
37	The way I relate to this event has changed	The way I relate to this event has changed
38	The experience I have when I think about this event has changed	The experience I have when I think about this event has changed
39	This event feels like ancient history	This event feels like ancient history
40 ^c	It feels like this event happened a really long time ago	It feels like this event happened a really long time ago
41 ^c	I have put this event behind me completely	This event is completely behind me now
42	The event feels far away from me	The event feels far away from me
43 ^a	I no longer identify with the person I was when this event occurred	
44 ^a	As I think about the event now, I feel like an outside observer	
45 ^a	Thinking about the event now, the details are vivid in my mind	
46 ^a	As I think about the event now, I feel like I am re-experiencing it (R)	
47 ^a	As I think about the event now, the images that come to my mind are from a perspective as seen through the eyes of an observer	
48	This event arouses strong emotions in me right now (R)	This event arouses strong emotions in me right now (R)
49 ^a	As I think about the event now, my emotions are intense (R)	
50 ^a	Thinking about the event now, I have a physical/bodily reaction (R)	
51 ^c	As I think about the event now, my emotions are close to the surface (R)	Thinking about this event now, I feel emotional (R)
52 ^a	This event feels 'alive' in the present moment (R)	
53 ^a	I feel powerless in relation to this event (R)	
54 ^c	I feel that this event is holding me back from doing things I want to do (R)	This event is mentally holding me back (R)
55 ^a	I have regrets about this event (R)	
56 ^c	I feel pressure to resolve my feelings about this event (R)	I feel pressure to take steps to resolve my feelings about this event (R)
57 ^{ac}	As I think about the event now, I feel upset (R)	Part of me is still upset about this event (R)
58 ^a	This event is an active source of distress for me (R)	
59	I feel bothered, tense, or uneasy as I think about the event now (R)	I feel bothered, tense, or uneasy as I think about the event now (R)
60	As I think about the event now, it brings up unpleasant emotions (R)	As I think about the event now, it brings up unpleasant emotions (R)
61 ^c	I feel that I have been released from the emotional grip of this event	I feel free from the emotional grip of this event
62 ^{bc}	I have recovered emotionally from this event	I am in a good place emotionally when it comes to this event
63 ^a	As I think about the event now, my emotions are balanced	
64	I feel relief, satisfaction, or fulfillment as I think about the event now	I feel relief, satisfaction, or fulfillment as I think about the event now
65 ^a	The ending of this event is more positive than the beginning	
66	I have come to a positive resolution about this event	I have come to a positive resolution about this event

67 ^a	As I think about the event now, it brings up pleasant emotions	
100		This event feels far-off in the distant past
101		This event feels like a distant memory
102 ^b		It feels like this event happened just yesterday (R)
103 ^b		My feelings toward this event have changed
104		I now have a different perspective on this event
105		I now have a new way of looking at this event
106		I fully understand what this event is about
107		I am totally over this event
108		This event feels resolved
109		As I think about this event now, I feel content with the way things worked out
110 ^b		As I think about this event now, I feel acceptance for what happened
111 ^b		I have come to terms with this event
112		I have lingering negative feelings about this event
113		I really wish this event happened differently (R)
114		Deep down, this event still irritates me (R)
115 ^b		This event means a lot to me
116 ^b		This event is personally significant
117		I feel the need to take action to put this event to rest (R)
118		I have an urge to do something that will help me get over this event (R)
119		This event has loose ends that I just have to tie up (R)
120		This event is demanding of my attention (R)
121 ^b		This event needs a lot more thinking (R)
122		This event is intruding on my thoughts (R)

Note. ^a and ^b indicate eliminations based on low extracted communality estimates ($h^2 < 0.35$), low loadings (< 0.40), cross-loadings with multiple factors, item redundancies, or reconsideration of predictors and outcomes of the core construct for Studies 1a and 1b, respectively. ^c denotes changes to item phrasing. (R) denotes reverse scoring.

Given this early stage of scale development, a larger number of items and potential latent variables were retained. These items, 49 in total, loaded onto eight factors, tentatively labelled as follows (refer to Figure 1 for corresponding item numbers): completion/freeing finality, understanding/clarity, changed perception, felt distance, reduced emotional reaction, reduced behavioural activation, reduced preoccupation, and personal meaning. Twenty-three items were removed due to low extracted communality estimates ($h^2 < 0.35$), low loadings (< 0.40), cross-loadings with multiple factors, or reconsideration of predictors and outcomes of the core construct (refer to Table 3 above). For instance, items 7, 8, 17, 18, and 43-47, which pertained to event

coherence, self-narrative relevance, and select memory characteristics, were deemed peripheral to the construct of closure. The phrasing of some items were changed and new items thought to be central to the construct of closure were added for Study 1b (also noted in Table 3). Figure 1 illustrates a potentially emerging structural model.

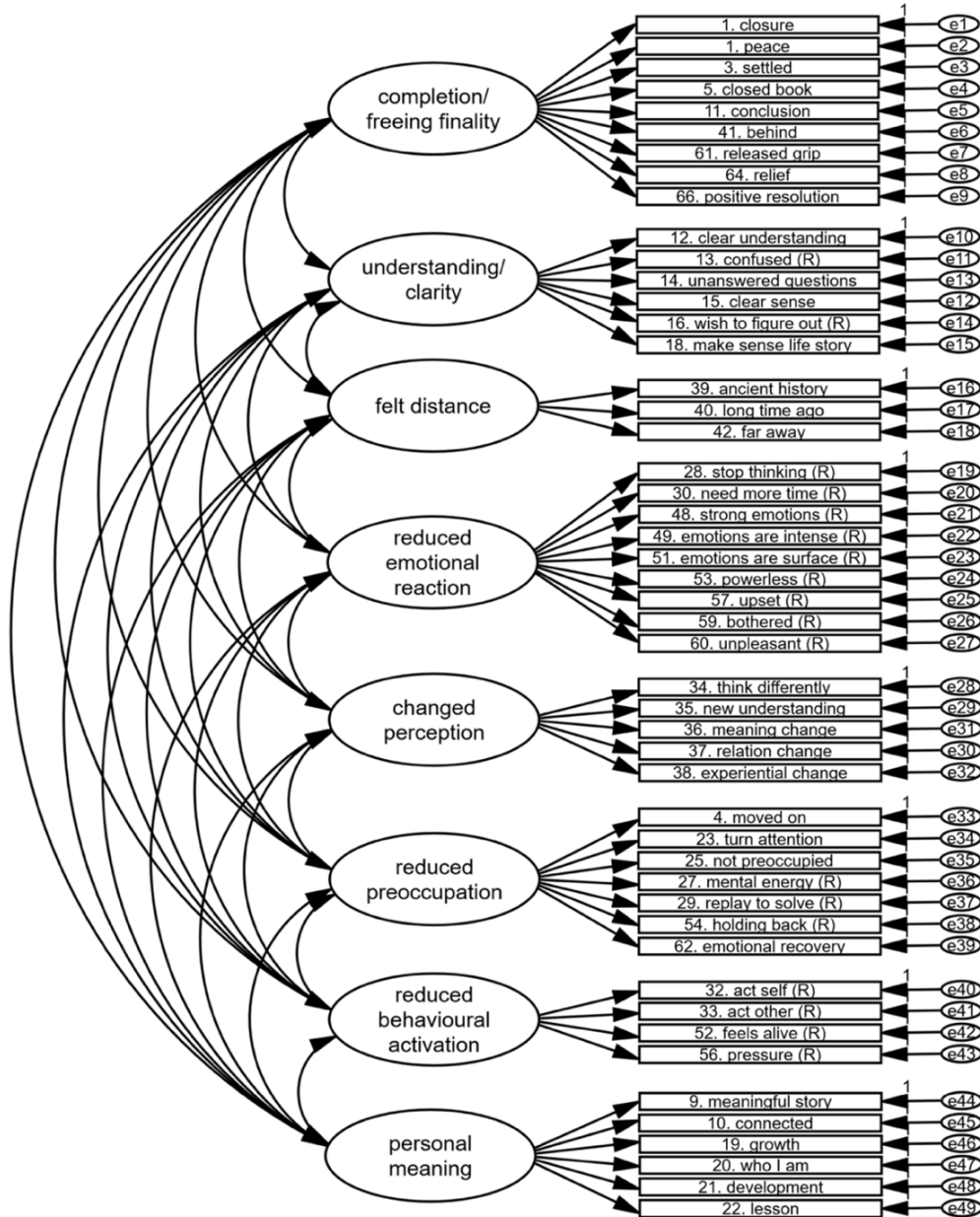


Figure 1. Study 1a potential structural model for the Psychological Closure Scale (PCS). e = error.

Study 1b

Data screening. For unresolved events in Study 1b (original $N = 324$), an examination of anti-image correlation matrices indicated sampling adequacy for the individual variables and sphericity (all values > 0.25 ; KMO = 0.94; Bartlett's Test = $\chi^2(1225) = 12393.98$, $p < .0001$), and skewness and kurtosis values were acceptable (between ± 2 and ± 3). Missing data constituted 1.2% of the closure item data, were missing completely at random, Little's MCAR $\chi^2(15235) = 15482.01$, $p = .079$, and were replaced using expectation maximization. Five cases were removed due to inaccurate responding on the validity items, four cases were removed for low response variability, one case was removed for excessive missing responses (> 16), and seven cases were removed based on multivariate outlier estimates using Mahalanobis distance, for a total sample size of 317.

Analyses. A two-way ANOVA to assess order effects indicated a statistically meaningful effect for unresolved events, $F(1, 322) = 5.78$, $p = .017$; $M_{diff} = 0.25$, [0.04, 0.46], $d_{unb} = 0.27$ [0.05, 0.49]. As with Study 1a, those who selected an unresolved event first indicated higher average ratings on the closure items relative to those who selected it second. For resolved event ratings, no effect of order on closure was found, $F(1, 322) = 3.64$, $p = .057$; $M_{diff} = 0.17$, [-0.01, 0.35], $d_{unb} = 0.21$ [-0.01, 0.43].

Table 3 above details the closure items included in Study 1b. An EFA yielded 42 items that clustered into seven factors: freeing finality (items 1, 2, 3, 5, 11, 41, 61, 64, 107, 108, 109), clear understanding (items 12, 13, 15, 106), felt distance (items 39, 40, 42, 100, 101), experiential change (items 34, 36, 37, 38, 104, 105), emotional release (items 57, 59, 60, 112, 114), mental liberation (items 25, 26, 27, 54, 120, 122), and behavioural deactivation (items 32, 33, 56, 117, 118).

A confirmatory factor analysis (CFA) with Satorra-Bentler corrections (Satorra & Bentler, 2001) and maximum likelihood (ML) estimation (which is relatively robust against non-normality; Kline, 2015) were then conducted to assess model fit using R version 3.4.0 (R Foundation for

Statistical Computing, 2017). The unit loading identity (ULI) method was employed with the first latent variable path set to 1 (Kline, 2015). The model consisted of seven factors thought to comprise the construct of closure: freeing finality, clear understanding, felt distance, emotional release, experiential change, mental liberation, and behavioural deactivation. In line with common CFA reporting practices (Boomsma, 2000; Jackson et al., 2009; McDonald & Ho, 2002), current inferences relied on the following fit indexes: (1) model chi-square, χ^2 , (2) normed chi-square, χ^2/df , (3) root mean square error of approximation (RMSEA; Steiger, 1990), (4) comparative fit index (CFI; Bentler, 1990), and (5) standardized root mean square residual (SRMR).

The model chi-square can be considered a “badness-of-fit” index as higher values indicate worse correspondence to the data; hence, failure to reject the null would offer support for the model. There are a number of limitations with χ^2 : The hypothesis tested (i.e., perfect population fit) is likely to be implausible; it is sensitive to non-normality (as is the case for 7-point Likert scale data); and it is sensitive to sample size, with just sufficiently large enough samples leading to greater χ^2 values and rejection of the null. Alternatively, the normed chi-square value (χ^2/df) is less sensitive to sample size. Although there are no clear guidelines regarding acceptable normed chi-square estimates, Bollen (1989) has noted that values less than 5 have been recommended.

The RMSEA accounts for sample size, includes a correction for model complexity, and approximates a non-central chi-square distribution, meaning the model is *not* assumed to be perfect. The closer the RMSEA value is to zero, the better the fit. RMSEA values are considered acceptable, or indicative of good fit, if the 90% CI includes a lower bound ≤ 0.05 and an upper bound ≤ 0.08 (MacCallum, Browne, & Sugawara, 1996). The CFI assesses improvement in fit relative to a baseline model that assumes zero population covariances among the observed variables. CFI values greater than 0.90 are generally taken to indicate good model fit (Hu & Bentler, 1999). The SRMR is a measure of the overall difference between observed and predicted correlations, with values less

than 0.10 suggesting good fit (Kline, 2015). *A priori* cut-offs were therefore set as follows: NC \leq 5, RMSEA lower bound \leq 0.05, RMSEA upper bound \leq 0.08, CFI \geq 0.90, and SRMR \leq 0.10.

Robust fit indexes for the 42-item, 7-factor model of the construct of closure are presented in Table 4. This model was subsequently tested using independent MTurk (see *Study 2 Participants*) and undergraduate samples (see *Study 3 Participants*), the fit statistics of which are also reported in Table 4. Tables 5 and 6 detail latent variable (factor) and item statistics, respectively, for the PCS in the current sample. The final model is illustrated in Figure 2. Overall, CFA findings indicated a robust good-fitting solution for the construct of psychological closure.

Table 4

Model-Fit Index Statistics for the Final 42-Item 7-Factor Solution for the Psychological Closure Scale (PCS) Across Studies

	Study 1b (<i>n</i> = 317) 90% CI []	Study 2 (<i>n</i> = 182) 90% CI []	Study 3 Time 1 (<i>n</i> = 377) 90% CI []	Study 3 Time 2 (<i>n</i> = 351) 90% CI []
Robust χ^2 (798)	1345.64***	1162.98***	1309.58***	1297.81***
χ^2/df	1.69	1.46	1.64	1.63
Robust CFI	0.933	0.916	0.939	0.947
Robust RMSEA	0.051*** [0.046, 0.056]	0.057*** [0.049, 0.064]	0.044*** [0.040, 0.049]	0.048*** [0.044, 0.053]
SRMR	0.064	0.095	0.053	0.054

Notes. ***indicates statistical significance at $p < .0001$. **Bolded** fit index values indicate that these values met the cut-off criteria indicating good model fit. Robust estimates are based on the Satorra-Bentler correction.

Table 5

Standardized Loadings, Parameter Estimates, Correlations, and Effect Sizes for Latent Variables (Factors) Comprising the Psychological Closure Scale (PCS)

Latent Variables	<i>b</i>	<i>SE</i>	<i>z</i>	β	<i>R</i> ²	<i>p</i>	Sig.
Freeing Finality (FF)							
Felt Distance (FD)	1.67	0.17	9.66	0.72	0.52	.000	***
Emotional Release (ER)	1.06	0.14	7.30	0.57	0.32	.000	***
Experiential Change (EC)	1.00	0.15	6.80	0.47	0.22	.000	***
Clear Understanding (CU)	1.07	0.17	6.26	0.46	0.21	.000	***
Mental Liberation (ML)	1.00	0.16	6.40	0.45	0.20	.000	***
Behavioural Deactivation (BD)	1.03	0.17	6.05	0.41	0.17	.000	***
Felt Distance (FD)							
Emotional Release (ER)	0.91	0.16	5.80	0.38	0.14	.000	***
Experiential Change (EC)	1.00	0.19	5.20	0.36	0.13	.000	***
Clear Understanding (CU)	1.11	0.21	5.38	0.37	0.14	.000	***
Mental Liberation (ML)	1.41	0.19	7.30	0.49	0.24	.000	***
Behavioural Deactivation (BD)	1.24	0.22	5.62	0.38	0.14	.000	***
Emotional Release (ER)							
Experiential Change (EC)	0.35	0.14	2.51	0.16	0.03	.012	*
Clear Understanding (CU)	0.60	0.16	3.68	0.25	0.06	.000	***
Mental Liberation (ML)	1.40	0.16	8.67	0.61	0.37	.000	***
Behavioural Deactivation (BD)	1.39	0.18	7.90	0.53	0.28	.000	***
Experiential Change (EC)							
Clear Understanding (CU)	0.93	0.20	4.75	0.34	0.12	.000	***
Mental Liberation (ML)	0.12	0.18	0.66	0.05	0.003	.512	
Behavioural Deactivation (BD)	-0.17	0.21	-0.81	-0.06	-0.004	.419	
Clear Understanding (CU)							
Mental Liberation (ML)	0.79	0.19	4.05	0.27	0.07	.000	***
Behavioural Deactivation (BD)	0.37	0.22	1.68	0.11	0.01	.094	
Mental Liberation (ML)							
Behavioural Deactivation (BD)	2.44	0.21	11.77	0.78	0.61	.000	***

Notes. *** Indicates statistical significance at $p < .001$; * indicates statistical significance at $p < .05$.

Table 6

Item Loadings for the Psychological Closure Scale (PCS) 42-Item 7-Factor Solution

Latent Variables	Items	β	Sig.
Freeing Finality (FF)			
	2. I have made peace with this event	0.783	***
	1. I have complete closure on this event	0.779	***
	5. This event is like a 'closed book' to me	0.778	***
	41. This event is completely behind me now	0.774	***
	3. This event feels settled or put to rest	0.767	***
	107. I am totally over this event	0.744	***
	108. This event feels resolved	0.738	***
	61. I feel free from the emotional grip of this event	0.719	***
	64. I feel relief, satisfaction, or fulfillment as I think about this event now	0.682	***
	109. As I think about this event now, I feel content with the way things worked out	0.624	***
	11. I have reached a meaningful conclusion about this event	0.644	***
Clear Understanding (CU)			
	12. I have a clear understanding of this event	0.859	***
	15. I can make clear sense of what happened	0.829	***
	106. I fully understand what this event is about	0.696	***
	13. I am confused about this event (R)	0.545	***
Felt Distance (FD)			
	39. This event feels like ancient history	0.889	***
	101. This event feels like a distant memory	0.883	***
	100. This event feels far-off in the distant past	0.859	***
	42. This event feels far away from me	0.857	***
	40. It feels like this event happened a really long time ago	0.842	***
Emotional Release (ER)			
	57. Part of me is still upset about this event (R)	0.855	***
	59. I feel bothered, tense, or uneasy as I think about this event now (R)	0.826	***
	112. I have lingering negative feelings about this event (R)	0.801	***
	60. As I think about this event now, it brings up unpleasant emotions (R)	0.779	***
	114. Deep down, this event still irritates me (R)	0.769	***
Experiential Change (EC)			
	34. I now think differently about this event	0.827	***
	105. I now have a new way of looking at this event	0.821	***
	104. I now have a different perspective on this event	0.795	***
	37. The way I relate to this event has changed	0.771	***
	38. The experience I have when I think about this event has changed	0.743	***
	36. The meaning this event holds for me has changed	0.733	***

Mental Liberation (ML)		
26. I am mentally 'stuck' on this event (R)	0.886	***
122. This event is intruding on my thoughts (R)	0.884	***
54. This event is mentally holding me back (R)	0.856	***
25. I am preoccupied by this event (R)	0.828	***
27. This event is taking a lot of my mental energy (R)	0.819	***
120. This event is demanding of my attention (R)	0.810	***
Behavioural Deactivation (BD)		
117. I feel the need to take action to put this event to rest (R)	0.887	***
118. I have an urge to do something that will help me get over this event (R)	0.860	***
32. I feel the need to do something to resolve this event within myself (RS)	0.848	***
56. I feel pressure to take steps to resolve my feelings about this event (R)	0.831	***
33. I feel the need to do something to resolve this event with others (e.g., to make amends or to get revenge) (R)	0.752	***

Notes. (R) indicates the item is reverse scored.

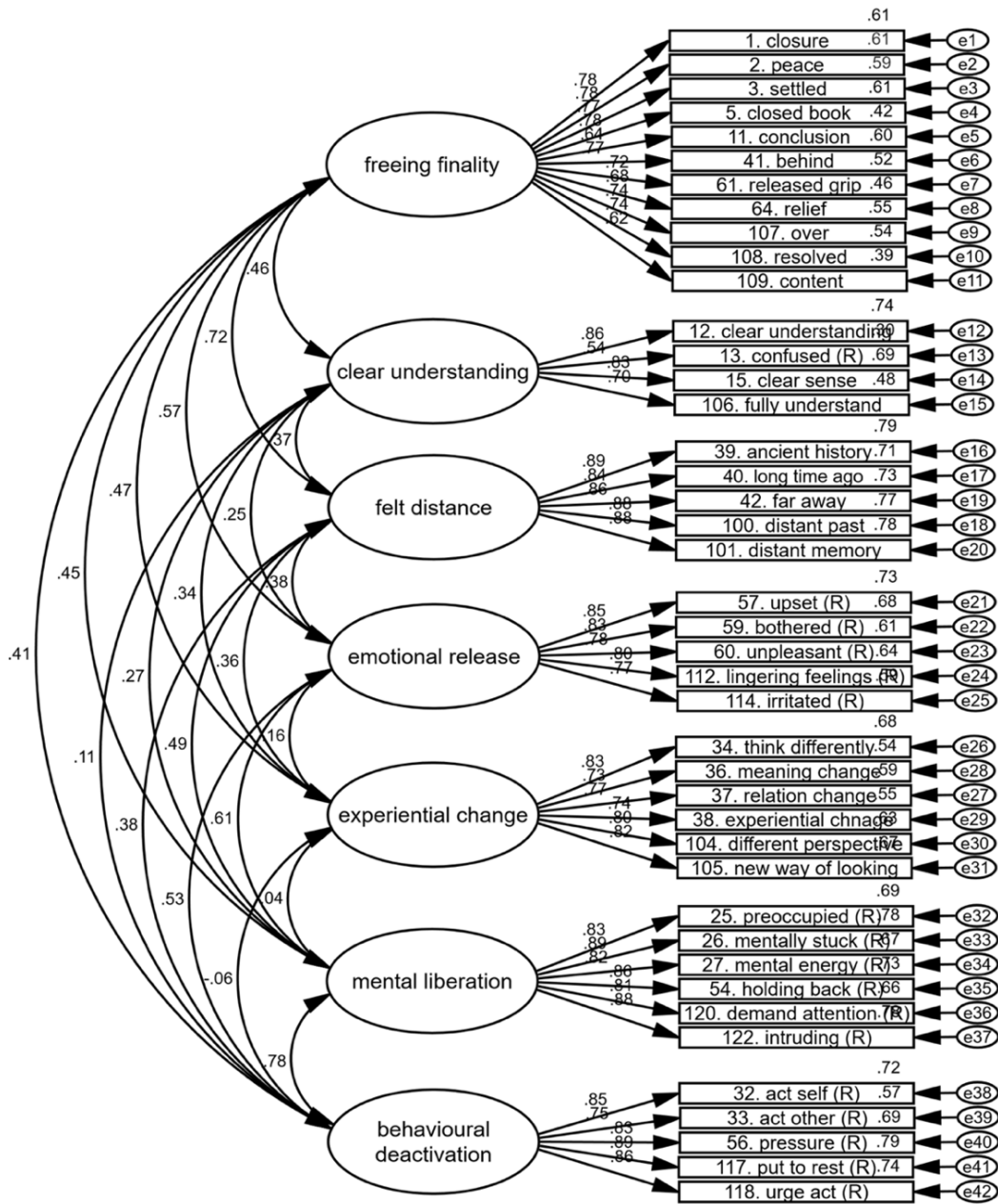


Figure 2. Final structural equation model, including beta weights, for the Psychological Closure Scale (PCS). Latent factors and manifest variables are indicated by round and rectangular shapes, respectively. e = error. Factor correlations and item loadings are also provided in Tables 5 and 6, respectively.

The potential for Common Method Bias (CMB), or spurious variance attributable to the method of measurement (e.g., self-report, survey interface) rather than the construct, was assessed using the Harman's single factor method in which all items (measuring latent variables) were

loaded into one common factor. Results revealed that this common factor accounted for 34.16% of the variance, which is less than the majority (50%), suggesting that CMB did not unduly affect inferences based on the results (P. Podsakoff, MacKenzie, Lee, & N. Podsakoff, 2003).

Finally, with regard to reliability estimates for the final model of the PCS, internal consistency reliabilities (omega, ω) were calculated for the full scale and subscales across Studies 1b, 2, and 3 (see Table 7), where value ranges from .70 to .79, .80 to .89, and .90 to .99, were taken to indicate fair, good, and excellent reliability, respectively. Test-retest reliability for the PCS composite was also assessed using data from Study 3, which consisted of two timepoints separated by 1-2 days; the scale demonstrated good test-re-test reliability, $r(349) = 0.86 [0.83, 0.89], p < .001$.

Table 7

Internal Consistency Reliability (Omega, ω) Estimates for the Psychological Closure Scale (PCS) and Subscales Across Studies 1b, 2, and 3

PCS Composite and Subscales	Study 1b (<i>n</i> = 317) 90% CI []	Study 2 (<i>n</i> = 182) 90% CI []	Study 3 Time 1 (<i>n</i> = 377) 90% CI []	Study 3 Time 2 (<i>n</i> = 351) 90% CI []
PCS Composite	0.95	0.92	0.94	0.96
Freeing Finality (FF)	0.93	0.95	0.92	0.95
Clear Understanding (CU)	0.82	0.69	0.80	0.85
Felt Distance (FD)	0.94	0.92	0.92	0.94
Emotional Release (ER)	0.90	0.87	0.85	0.90
Experiential Change (EC)	0.90	0.91	0.90	0.93
Mental Liberation (ML)	0.94	0.92	0.91	0.95
Behavioural Deactivation (BD)	0.92	0.88	0.87	0.91

Study 1 Discussion

This study began with a broad and multifaceted preliminary conceptualization of psychological closure based on various definitions in the literature. Study 1a explored the

underlying factor structure of the construct of closure, whereas Study 1b tested goodness-of-fit for the emergent 7-factor structural model. Findings indicated a robust, good-fitting, and reliable solution that was replicated using two independent MTurk (Study 2) and undergraduate (Study 3) samples. The resulting Psychological Closure Scale (PCS) is a 42-item self-report measure for use with non-clinical populations that assesses seven aspects of autobiographical event resolution: freeing finality, clear understanding, felt distance, experiential change, emotional release, mental liberation, and behavioural deactivation. These factors align with the majority of the 10 proposed factors (e.g., explicit closure/completeness, event understanding, felt distance, emotional deactivation, less preoccupation, experiential change, reduced need to act, and reduced negative reactions) along with the more than 18 aspects of closure mentioned in prior research (e.g., completion, tension reduction, rationalization, shifting of attention to other concerns, expression of positive sentiments, temporal embeddedness, and historical remoteness; e.g., Albert, 1983; Beike & Wirth-Beaumont, 2005). As such, the PCS offers a comprehensive yet parsimonious operationalization of the construct of psychological closure, defined as follows:

The mental segmentation of part of one's past in subjective space and time, accompanied by appraisals of resolution or finality, refined understanding, changed aspects of experience at recall, felt distance, emotional relief, the freeing of attention, and a reduced need to act. Such appraisals can refer to the event as it is recalled or one's experience of the event during recollection.

By empirically investigating manifestations of latent constructs and subfactors of psychological closure as articulated in theory, this study establishes support for the structural integrity and internal validity of the PCS (per Lovinger, 1957). However, as this was a first attempt at devising a valid measure of psychological closure and its dimensions, additional iterations and item refinements are likely to yield an even better-fitting solution or model structure.

Suggestions for Model Revision and Further Investigation

Content saturation. It is interesting that items pertaining to regret or wishing things turned out differently were not found to contribute to a unidimensional subfactor of the PCS given previous definitions of closure based on the principle of lost opportunity (Beike et al., 2007; Beike & Wirth-Beaumont, 2005; Zeigarnik, 1935). This may have been due to an insufficient number of items pertaining to regret or the fact that it may not constitute a defining feature of the construct of closure. Indeed, the notion of regret places emphasis on one's own perceived errors of commission or omission (personal actions, inactions, missed opportunities) when appraisals of closure can derive from a host of other factors, including but not limited to the actions or inactions of others (e.g., their perceived ignorance, maltreatment, or harsh evaluation) and associated effects on the rememberer (e.g., emotional activation, confusion, preoccupation). Understanding how regret, or the lack thereof, relates to or defines closure warrants further investigation.

Item refinements. The current PCS may also benefit from item refinements. For example, extreme adverbs (e.g., “totally”, “completely”) could be removed to promote use of the full scale range without repetition of anchor descriptors; items with multiple descriptors (e.g., “relief, satisfaction, or fulfillment”, “bothered, tense, or uneasy”) could be simplified to reduce confusion and associated residuals; and similar items (e.g., “I feel the need to do something to resolve this event within myself” and “I feel the need to do something to resolve this event with others...”) could be combined (e.g., “I feel the need to do something to resolve this event”) to reduce potential redundancies and arrive at a more parsimonious or short-form measure of closure. To this end, 4-5 items per subscale (full scale item range = 28 to 35) has been recommended to ensure adequate internal consistency reliability (Harvey, Billings, & Nilan, 1985). Short measures also work to minimize response biases caused by boredom or fatigue (Schmitt & Stults, 1985).

Subscale weighting. The different number of items across PCS subscales is also worth discussing. The PCS subscales consist of 4 (Clear Understanding) to 11 (Freeing Finality) items, which may unduly influence their representativeness as content domains of closure. Indeed, according to Lovinger (1957), the proportion of items devoted to each content area should be proportional to the importance of that content in the target construct, hence, it is acceptable for broader content areas to be represented by more items than narrower content areas. Such considerations are particularly relevant for the CU subscale as it is thought to be highly characteristic of the construct of closure, but is represented by the least number of items, one of which is reverse-scored. This may explain why, relative to the other scales, this subscale showed lower internal consistency reliability (range = .69 - .85). The overall number of items may also affect reliability estimates - the more items, the more reliable the scale is likely to be. Future scale refinements should therefore consider the relative weighting of the different PCS subscales, with possible item refinements and additions to the CU subscale, along with the overall number of items, using predicted reliabilities for altered lengths of the PCS (Brown, 1910; Spearman, 1910).

Item ordering. Further, in the current study, items were presented to respondents in a randomized fashion to guard against response biases that may be due to order effects. This raises considerations of fixed item orders that offer reliable and valid estimates of closure. Should item randomization not be feasible, a potential order of presentation for the PCS is offered in Appendix G, organized in terms of face valid relevance to the construct. Nevertheless, a deeper understanding of scale adaptations and fixed-order effects necessitates further investigation.

Limitations

There are some important limitations or cautions to consider in interpreting the current results. Firstly, the use of confirmatory techniques (CFA) after item revisions had been explored (EFA) in Study 1b is not entirely appropriate as EFA results are subject to capitalization on chance

variation, and the specification of a CFA model based on EFA outcomes could exacerbate this problem (Kline, 2015). Should future work seek to refine the PCS, it is preferable to validate the factor structure across different samples and to use the same method (EFA *or* CFA) in both samples or use a multiple-sample CFA (Hurley et al., 1997). However, that CFAs using subsequent independent MTurk (Study 2) and undergraduate (Study 3) samples replicated good model fit allows for more confident inferences based on the currently reported fit indexes for the PCS.

Secondly, although the use of reverse-scored items can encourage participants to carefully consider each item, they may also bias estimates of the construct by introducing errors or heterogeneity in interpretation and responding (DeCoster, 2005). Three subscales of the PCS (Emotional Release, Mental Liberation, and Behavioural Deactivation) use reverse-coded items, raising the possibility of a method factor. The use of negatively worded items also raises considerations about whether the construct of closure can be appropriately captured by the absence of, or reductions in, elements of experience as they pertain to event-memories. In other words, does the attainment of greater resolution correspond to reductions in what characterizes a lack thereof? The use of reverse-scored items to assess closure is arguably justified by references to both what diminishes (e.g., unpleasant feeling upon recall, preoccupation, urge to take action in search of resolution) and what develops (sense of understanding, completion, relief, peace), which is in keeping with common parlance and with appraisals of event-memories offered in clinical contexts (for further discussion on this perspective, see Paivio & Pascual-Leone, 2010). Nevertheless, future research centered on scale refinements for the PCS may wish to examine the amount and influence of positively versus negatively worded items on overall model structure and fit.

Thirdly, in a related vein, correlations amongst latent variables in the current study point to the possibility of a nested or hierarchical conceptualization for the construct of closure with two potential second-order factors: Segmentation-Integration (Freeing Finality, Felt Distance, Clear

Understanding, Experiential Change) and Deactivation (Emotional Release, Mental Liberation, Behavioural Deactivation). However, the current conceptualization of closure, hence the structural model, derives from prior literature that references closure as a semi-dichotomous composite appraisal rather than a collection of independent parts. In other words, in practice, people are likely to state that they do or do not have closure, rather than to describe their degree of closure based on qualitatively distinct, lower- or higher-order aspects of closure. In any case, exploring nested operationalizations of the construct of closure constitutes a fruitful avenue for future research.

Future Directions

To summarize potential avenues for future research, scale refinements for the PCS may be achieved through additional investigations of issues pertaining to content saturation, item revision, subscale weighting, item ordering, the use of CFAs using independent samples, the presence of method factors, and potential nested models for the construct of closure.

Additionally, although items comprising the PCS reference autobiographical event-memories, this measure could easily be adapted to refer to other events and experiences (e.g., traumatic events, future events, current experiences, intra- or inter-personal difficulties). Different types of autobiographical events are expected to yield differential degrees of closure, and as such, produce differential effects. It would be interesting to assess whether the current CFA findings for the PCS, which are based on unresolved events, hold for other types of events that vary in content and/or severity. In addition to PCS adaptations for different event types, it would also be worthwhile to validate the scale for use with different populations, including diverse cultural or clinical populations (e.g., trauma survivors), and to explore relations amongst closure and post-traumatic growth (e.g., Blackie et al., 2017; Johnson & Boals, 2015).

Although not the primary focus of the current study, the order of event selection is worth discussing as it may inform future research on unresolved event-memories. Individuals who

selected an unresolved event first (before selecting a resolved event) indicated higher ratings of closure, on average, relative to those who selected it second (after a resolved event), while ratings for resolved events did not differ based on the order in which they were selected (first or second). It is plausible that unresolved (vs. resolved) events are granted priority status for cognitive and emotional management via their threat to internal equilibrium, making associated appraisals of closure increasingly sensitive to contextual factors like event comparisons. That is, following the retrieval and rating of a resolved event, ratings of closure for an unresolved event may be lower due to the relative contrast, and increased sensitivity to this contrast, which stems from the drive for reconciliation (Beike & Wirth-Beaumont, 2005). Recalling an unresolved event first, on the other hand, offers no such comparative baseline or juxtaposition, so ratings of closure tend to be higher. Resolved events do not call for such reconciliation efforts, therefore associated appraisals of closure remain stable and may be subject to ceiling effects. To the extent unresolved events are negatively valenced and resolved events are positively valenced, this accords with research showing biases among people to spontaneously perceive life events as more pleasant than unpleasant (Walker, Skowronski, & Thompson, 2003), and to view positive events as closer to the present, relative to negative events (Ross & Wilson, 2002) – both indicators of greater closure. In any case, differences in ratings of closure based on the order of event selection served the important function of creating sufficient variability in ratings to construct the PCS.

Due to inherent limitations in quantifying human experience, the use of mixed-methods approaches in future research is likely to offer a richer, more saturated understanding of psychological closure and its core dimensions. For instance, a profitable avenue for future research would be to explore how individuals' narrative descriptions of closure using word analysis (e.g., LIWC; Pennebaker, Booth, & Francis, 2007) or coding schemes (e.g., Adler & Poulin, 2009; Pals, 2006) compare to their ratings on the PCS in addition to the content and wording of PCS items.

In all, by empirically investigating the structure and measurement of psychological closure, this study offers, for the first time, a multifaceted and parsimonious measure – the PCS.

Methodological and analytical changes, factor and items refinements, adaptations, and replications constitute fruitful areas for future research. Furthermore, it is now possible to explore ways in which dimensions of closure relate to one another along with their combined and independent effects. Importantly, a robust investigation of construct validity also requires an examination of convergent and discriminant relations with other constructs (Cronbach & Meehl, 1955) – the very aim of Study 2.

CHAPTER 3

PCS VALIDATION

Elucidating the construct of psychological closure calls for an examination of how it relates to other conceptually similar and distinct constructs. To this end, Study 2 investigated the extent to which the PCS aligned with (convergent validity) or could be distinguished from (discriminant validity) existing measures. For instance, in the context of creative problem-solving, Jarman (2016) outlined components of a “mental itch” experience: “(1) a persistent aversive arousal state, (2) an urgency to reduce said arousal state, and (3) the desire to do so by solving the problem...A mental itch, like its epidermal counterpart, is uncomfortable and insistent...” (p. 22). Given the emergence of closure is characterized in part by less intrusiveness (mental liberation), a reduced need to take action (behavioural deactivation), relief (emotional release), and completion (freeing finality), it may be likened to the satisfaction of having a mental itch “scratched,” and so should negatively correlate with the mental itch experience (per the Mental Itch Scale; Jarman, 2016).

Moreover, as psychological closure regards present attributions of a remembered event, it can be distinguished from the need for cognitive closure (assessed using the Need for Closure Scale; Webster & Kruglanski, 1994), which regards an urgent need to achieve definitive answers to avoid ambiguity and can be classed as an individual difference factor. Thus, whereas the need for closure refers to individuals’ generalized *desire* to obtain closure, psychological closure refers more broadly to their *current state* or appraisal of closure regarding a specific event. Although it is possible for the need for cognitive closure to eventually bring about psychological closure, the latter may be experienced or pursued irrespective of a generalized need for clear solutions. Closure ratings are also assumed to be consciously accepted and honest appraisals of subjective reality rather than unconscious defenses, and thus were not expected to correlate with other ways in which individuals tend to respond to emotions such as suppression, avoidance, or rumination (measured

using the Responses to Emotions Questionnaire; Jeffries, McLeish, Kraemer, Avallone, & Flemming, 2016).

With regard to event types, although closure has been discussed in relation to self-defining, turning-point, or traumatic events (arguably events individuals seek to further understand), attributions of closure can refer to a range of autobiographical memories, not just those deemed personally significant, pivotal, or frightening. This is to say that appraisals of closure are regarded as distinct from appraisals of event centrality to identity and life-story (per the Centrality of Event Scale; Berntsen & Rubin, 2006b), impact (Transitional Impact Scale; Svob, Brown, Reddon, Uzer, & Lee, 2013), and significance (Subjective Impact and Personal Significance Scale; Wood & Conway, 2006).

Further, although the development of new insights may theoretically be involved in the attainment of closure, measures of the insight experience (per the Sudden Restructuring of Experience Scale; Jarman, 2014) pertain to “mental click” moments or flashes of insight about specific problems. Closure, on the other hand, involves a more gradual, purposeful process of meaning-making wherein the “problem” is likely to be the unresolved nature of a recalled event rather than the content of the event per se. To this end, the concept of resolution has been discussed in the context of relationships (e.g., in seeking to resolve longstanding negative feelings toward formative caregivers; Greenberg, 2015), which constitute a subset of autobiographical memories subject to appraisals of closure. Given appraisals of closure can be applied to all event types, including interpersonal events, PCS ratings were hypothesized to positively correlate with appraisals of resolution for interpersonal unfinished business (assessed using the Unfinished Business Resolution Scale; Singh, 1994). Refer to Table 8 for a summary of hypotheses.

Table 8

Hypotheses Regarding Correlations Amongst the Psychological Closure Scale (PCS) and Other Measures

Measures	Expected Relation with Psychological Closure Scale (PCS)
Mental Itch Scale (MIS)	Negative correlation*
Need for Closure Scale (NFCS)	No correlation
Responses to Emotions Questionnaire (REQ)	No correlation
Centrality of Event Scale (CES)	No correlation
Transitional Impact Scale (TIS)	No correlation
Subjective Impact and Personal Significance Scale (SIPS)	No correlation
Sudden Restructuring of Experience Scale (SRES)	No correlation
Unfinished Business Resolution Scale (UBRS)	Positive correlation*

Notes. For a detailed description of each measure see *Study 2 Methods*. * indicates anticipated statistical significance using Holm-Bonferroni corrections.

Study 2 Methods

Study 2 Participants

A total of 239 MTurk workers participated in Study 2. Fifty-five cases were removed *a priori* for failing to meet eligibility criteria (i.e., did not select an unresolved event, used plagiarized information from the internet, completed the survey more than once), or for not passing the validity check items (Appendix C). An additional two cases were removed for extreme responding (standardized residuals $> \pm 3.0$ SD; Mahalanobis Distance > 55 , $\alpha = 0.001$; Leverage > 0.28). The final sample consisted of 182 cases (59.3% male; 40.1% female; 0.5% other/not specified; $M_{age} = 33.95$, $SD = 11.14$, range = 18 – 74; 68.7% White/Caucasian, 12.1% Black/African, 8.2% Hispanic/Latino, 4.9% Asian, 3.3% Multiethnic, 1% Indigenous; 1.6% other/not specified; 69.3% undergraduate university, college, or associate education, 12.6% graduate degree, 14.3% high school diploma, 3.8% trades).

Study 2 Materials and Measures

All of the following measures are included in Appendices G through O.

Psychological closure. The newly developed Psychological Closure Scale (PCS) was used to assess degree of perceived closure for autobiographical events. As described in Study 1, the PCS is a 42-item self-report measure that assesses seven aspects of psychological closure: Freeing Finality (FF), Clear Understanding (CU), Felt Distance (FD), Emotional Release (ER), Experiential Change (EC), Mental Liberation (ML), and Behavioural Deactivation (BD). Items are rated on a scale ranging from 1 (*completely disagree*) to 7 (*completely agree*), with higher scores signifying greater closure. In the current study, data from the full PCS and subscales demonstrated good internal consistency reliabilities (Full $\alpha = .92$; FF $\alpha = .95$; CU $\alpha = .68$; FD $\alpha = .92$; ER $\alpha = .86$; EC $\alpha = .91$; ML $\alpha = .92$; BD $\alpha = .88$).

Mental itch. The Mental Itch Scale (MIS; Jarman, 2016) is a 15-item measure of an aversive and unsettling state in the problem-solving and insight process (i.e., a "mental itch"). A mental itch consists of persistent aversive cognitive arousal, a need to reduce said arousal, and the desire to do so by solving the problem causing it. In the present study, "unresolved event" was used in place of "problem." Some items regard arousal (e.g., "There's a feeling of unease in the back of my mind") while others concern motivational urgency (e.g., "It's all I can think about"). Items are rated from 1 (*not at all*) to 7 (*very much*). The MIS has demonstrated excellent internal consistency ($\alpha = .96$), strong correlations with descriptions of the mental itch experience, and prediction of insight above ideation and intrinsic motivation (Jarman, 2016). Current $\alpha = .96$.

Need for cognitive closure. The Need for Closure Scale - Short (NFCS; Roets & Van Hiel, 2011, based on Webster & Kruglanski, 1994) is a 15-item instrument that measures individuals' generalized or trait motivation to arrive at definitive answers on a topic to avoid confusion or ambiguity. The NFCS contains five facet scales: Order, Predictability, Decisiveness, Ambiguity,

and Closed-Mindedness. Individuals rate the extent to which they agree with statements such as, “When I am confronted with a problem, I’m dying to reach a solution very quickly,” on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*). Roets and Van Heil (2011) reported good internal consistency ($\alpha = .87$), test-retest reliability ($r = .79$), and correlations with related factors (e.g., big-five traits, need for structure, need for cognition, need for affect). In the current study, $\alpha = .87$.

Responses to emotions. The Responses to Emotions Questionnaire (REQ; Jeffries et al., 2016) is a 12-item measure designed to assess four common emotion regulation strategies: Suppression (e.g., “I try to hold back or suppress my emotions”), Avoidance (e.g., “I try to avoid things that will make me feel bad”), Rumination (e.g., “I dwell upon my thoughts and feelings”), and Reappraisal (e.g., “I try to think about my feelings in a way that makes me feel less distressed”). Participants rate their general use of each strategy on a scale ranging from 0 (*not at all*) to 4 (*a lot*). The subscales have demonstrated acceptable reliabilities (α range = .61 - .71) and all, save for the Avoidance subscale, have been found to correlate with emotion regulation difficulties (Jeffries et al., 2016). For the full REQ, current $\alpha = .82$.

Event centrality. The 7-item short form of the Centrality of Event Scale (CES; Berntsen & Rubin, 2006b) measures how central an event is perceived to be in relation to one’s identity and life story. Items (e.g., “I feel that event has become part of my identity”) are anchored 1 (*totally disagree*) to 5 (*totally agree*). The scale has demonstrated good reliability ($\alpha = .88$; current $\alpha = .89$).

Transitional impact. The Transitional Impact Scale (TIS-12; Svob et al., 2013) is a 12-item measure of changed and stable aspects of life following events. It consists of two subscales: Material Impact (changes in the concrete context of daily living) and Psychological Impact (changes in thoughts, attitudes, emotions, etc.). Items (e.g., “This event has changed the people I hang out with”, “This event has changed the way I think about things”) are rated from 1 (*completely*

disagree) to 5 (*completely agree*). The measure has demonstrated good internal consistency (full scale $\alpha = .83$; Material $\alpha = .79$, Psychological $\alpha = .76$). For the full TIS, current $\alpha = .90$.

Subjective impact/personal significance. The Subjective Impact and Personal Significance Scale (SIPS; Wood & Conway, 2006) assesses subjective appraisals of impact and significance for self-defining memories. Subjective impact was proposed to reflect meaning-making, which is critical to positive narrative identity and adjustment. Individuals are asked to rate an event using six items (e.g., "I feel that I have grown as a person since experiencing this past event") from 1 (*not at all*) to 7 (*very much*). The SIPS has shown good internal consistency ($\alpha = .86$; current $\alpha = .87$).

Sudden restructuring of experience. The Sudden Restructuring of Experience (SRE) Scale (Jarman, 2014) is a 7-item measure of new insight, or the extent to which people experience changes in how they view problems. Sample items include, "It was as if I were seeing the same problem through new eyes" and "My new understanding of the problem really sunk in." Items are rated from 1 (*not at all*) to 7 (*very much*), with higher scores indicating greater experiential restructuring. The scale has demonstrated good internal consistency ($\alpha = .88$; current $\alpha = .92$).

Unfinished business. The Unfinished Business Resolution Scale (UBRS; Singh, 1994) consists of 11 items that assess the degree to which individuals feel troubled by negative feelings and unmet needs, or feel worthwhile in relation to, and accepting of, a specific person. Items (e.g., "I feel comfortable about my feelings in relation to this person", "I have come to terms about not getting what I need or want from this person") are rated on a scale ranging from 0 (*not at all*) to 5 (*very much*). Singh (1994) reported acceptable test-retest reliabilities over 1 month in student and clinical samples ($r = .73$ and $r = .81$, respectively). Due to the fact individuals in the current study were not asked to recall an interpersonal event per se, two screening questions assessing the presence of others in the event were included prior to the UBRS. Current $\alpha = .71$.

Ancillary items. As with Study 1, four validity check items were included to increase

attention (Oppenheimer et al., 2009; Appendix C), two open-ended questions were included to allow participants to further describe their event and/or provide feedback about the study (Appendix D), and the same open-response demographics questionnaire was used (Appendix E).

Study 2 Procedure

Procedures were identical to Study 1 and ethically cleared, however for Study 2, participants selected one unresolved event and, in addition to the new PCS, they completed the MIS, NFCS, REQ, CES, TIS, SIPS, SRE, and UBRS. These measures were randomly presented to minimize order effects. Study 2 took an average of 15.54 mins to complete, range = 3.35–61.13, $SD = 10.21$.

Study 2 Results

With respect to statistical assumptions, the study design and Durbin-Watson statistic (1.96) indicated independence of residuals; visual inspection of studentized residuals by unstandardized predicted values indicated that the scales were collectively linearly related to PCS values with slight heteroscedasticity; partial regression plots indicated independent linear relationships with the PCS, save for the SIPS, TIS, and CES (central density). Tolerance (range = 0.26 – 0.77; above 0.10) and correlational analyses indicated an absence of multicollinearity (all $r_s < 0.17$; below 0.70). There were no influential observations (Cook's Distance < 1). The data were determined to be normally distributed based on the histogram ($M = 0$, $SD = 1$) and plot of standardized and studentized residuals (points aligned on the diagonal). Finally, missing values analyses indicated a lack of missingness for all measures (hence, Little's MCAR test could not be computed).

See Table 9 for descriptive statistics and internal consistency reliabilities for all measures.

Table 9

Descriptive Statistics and Internal Consistency Reliabilities for the Main Measures

	Scale Range	<i>M</i> [95% CI]	<i>SD</i>	Cronbach's α
Psychological Closure Scale (PCS)	1 – 7	3.77 [3.63, 3.90]	0.90	0.92
Freeing Finality (FF)	1 – 7	3.43 [3.19, 3.67]	1.64	0.95
Clear Understanding (CU)	1 – 7	4.63 [4.44, 4.81]	1.24	0.68
Felt Distance (FD)	1 – 7	4.03 [3.78, 4.27]	1.70	0.92
Emotional Release (ER)	1 – 7	2.99 [2.79, 3.18]	1.33	0.86
Experiential Change (EC)	1 – 7	4.00 [3.78, 4.22]	1.52	0.91
Mental Liberation (ML)	1 – 7	3.99 [3.76, 4.22]	1.58	0.92
Behavioural Deactivation (BD)	1 – 7	3.80 [3.58, 4.02]	1.50	0.88
Need for Closure Scale (NFCS)	1 – 6	4.05 [3.93, 4.18]	0.88	0.87
Responses to Emotions Questionnaire (REQ)	0 – 4	29.41 [28.27, 30.54]	7.79	0.82
Mental Itch Scale (MIS)	1 – 7	4.17 [3.94, 4.39]	1.53	0.96
Sudden Restructuring of Experience Scale (SRES)	1 – 7	4.00 [3.76, 4.22]	1.57	0.92
Subjective Impact and Personal Significance Scale (SIPS)	1 – 7	5.07 [4.89, 5.25]	1.30	0.87
Transitional Impact Scale (TIS)	1 – 5	3.16 [3.01, 3.29]	0.94	0.90
Centrality of Event Scale (CES)	1 – 5	3.31 [3.17, 3.45]	0.99	0.89
Unfinished Business Resolution Scale (UBRS)	0 – 5	2.44 [2.32, 2.56]	0.83	0.71

Note. For the UBRS, $n = 171$; For all other scales, $N = 182$.

Correlational analyses. As shown in Table 9, the PCS and subscales demonstrated acceptable-to-excellent internal consistency reliabilities. Two-tailed correlational analyses were conducted using the main variables: PCS, MIS, NFCS, REQ, CES, TIS, SIPS, SRE, and UBRS². Holm-Bonferroni corrections were used because, relative to the classical Bonferroni correction, it is more conservative and powerful in minimizing risks for Type I and II Errors when making multiple comparisons (Aickin & Gensler, 1996; Holm, 1979). As noted in Table 10, statistically significant

² Correlations amongst the PCS and UBRS were conducted separately due to the fact not everyone selected an interpersonal event for which the UBRS assesses.

medium and small correlations were found amongst the PCS and the UBRS (Unfinished Business Resolution) and MIS (Mental Itch), respectively. The PCS was not found to correlate with the remaining measures: NFCS, REQ, SRES, SIPS, TIS, or CES.

Table 10

Two-Tailed Bivariate Correlations with Holm-Bonferroni Corrections Amongst the Psychological Closure Scale (PCS), Subscales, and Other Measures

	PCS <i>r</i> (180) [95% CI] <i>p</i>	NFCS <i>r</i> (180) [95% CI] <i>p</i>	REQ <i>r</i> (180) [95% CI] <i>p</i>	MIS <i>r</i> (180) [95% CI] <i>p</i>	SRES <i>r</i> (180) [95% CI] <i>p</i>	SIPS <i>r</i> (180) [95% CI] <i>p</i>	TIS-12 <i>r</i> (180) [95% CI] <i>p</i>	CES <i>r</i> (180) [95% CI] <i>p</i>	UBRS <i>r</i> (169) [95% CI] <i>p</i>
PCS	1	-0.14 [-0.28,0.00] .058	0.01 [-0.16,0.15] .854	-0.23** [-0.36,-0.08] .002	0.19* [0.02,0.34] .010	-0.14 [-0.30,0.03] .070	-0.13 [-0.29,0.05] .080	-0.20* [-0.36,-0.04] .006	0.57** [0.42,0.69] .000
NFCS		1	0.43** [0.31,0.53] .000	0.30** [0.13,0.45] .000	0.18* [0.03,0.32] .013	0.24** [0.11,0.38] .001	0.19* [0.04,0.33] .010	0.19* [0.05,0.31] .011	-0.15* [-0.30,0.00] .047
REQ			1	0.43** [0.29,0.55] .000	0.38** [0.22,0.52] .000	0.33** [0.18,0.47] .000	0.41** [0.25,0.53] .000	0.31** [0.16,0.43] .000	-0.25** [-0.41,-0.08] .001
MIS				1	0.54** [0.40,0.67] .000	0.38** [0.23,0.50] .000	0.60** [0.49,0.70] .000	0.56** [0.43,0.67] .000	-0.37** [-0.49,-0.23] .000
SRES					1	0.41** [0.26,0.54] .000	0.59** [0.46,0.69] .000	0.49** [0.35,0.62] .000	-0.02 [-0.20,0.15] .755
SIPS						1	0.60** [0.47,0.71] .000	0.69** [0.58,0.78] .000	-0.18* [-0.33,-0.01] .019
TIS-12							1	0.83** [0.78,0.88] .000	-0.34** [-0.48,-0.19] .000
CES								1	-0.30** [-0.44,-0.15] .000
UBRS									1
		NFCS <i>r</i> (180) [95% CI] <i>p</i>	REQ <i>r</i> (180) [95% CI] <i>p</i>	MIS <i>r</i> (180) [95% CI] <i>p</i>	SRES <i>r</i> (180) [95% CI] <i>p</i>	SIPS <i>r</i> (180) [95% CI] <i>p</i>	TIS-12 <i>r</i> (180) [95% CI] <i>p</i>	CES <i>r</i> (180) [95% CI] <i>p</i>	UBRS <i>r</i> (169) [95% CI] <i>p</i>
PCS – FF		-0.032	0.21*	0.20*	0.47**	-0.02	0.19*	0.11	0.35**

	[-0.18,0.12] .671	[0.07,0.35] .005	[0.05,0.35] .006	[0.35,0.59] .000	[-0.17,0.13] .757	[0.03,0.34] .010	[-0.04,0.25] .140	[0.20,0.48] .000
PCS – FD	0.029 [-0.14,0.19] .697	0.21* [0.03,0.37] .004	0.06 [-0.10,0.21] .407	0.32** [0.16,0.47] .000	0.08 [-0.07,0.25] .258	0.10 [-0.06,0.26] .161	0.04 [-0.14,0.18] .629	0.29** [0.11,0.43] .000
PCS – CU	0.07 [-0.07,0.24] .339	0.05 [-0.12,0.22] .500	-0.01 [-0.25,0.06] .186	-0.06 [-0.22,0.11] .405	0.12 [-0.04,0.26] .114	-0.07 [-0.22,0.08] .360	-0.00 [-0.16,0.16] .969	0.30** [0.14,0.45] .000
PCS – EC	-0.01 [-0.17,0.17] .933	0.24** [0.08,0.41] .001	0.22* [0.05,0.37] .003	0.54** [0.41,0.67] .000	0.27** [0.13,0.42] .000	0.33** [0.19,0.49] .000	0.29** [0.15,0.43] .000	0.25** [0.06,0.42] .001
PCS – ER	-0.31** [-0.46,-0.18] .000	-0.35** [-0.47,-0.21] .000	-0.45** [-0.58,-0.32] .000	-0.13 [-0.30,0.04] .082	-0.49** [-0.63,-0.35] .000	-0.48** [-0.60,-0.34] .000	-0.52** [-0.64,-0.36] .000	0.53** [0.39,0.65] .000
PCS – ML	-0.22* [-0.36,-0.07] .003	-0.39** [-0.50,-0.27] .000	-0.76** [-0.83,-0.67] .000	-0.48** [-0.61,-0.35] .000	-0.33** [-0.46,-0.19] .000	-0.60** [-0.71,-0.48] .001	-0.61** [-0.70,-0.50] .000	0.37** [0.23,0.50] .000
PCS – BD	-0.16* [-0.31,-0.01] .033	-0.34** [-0.46,-0.22] .000	-0.57** [-0.70,-0.43] .000	-0.42** [-0.56,-0.28] .000	-0.28** [-0.41,-0.12] .000	-0.40** [-0.52,-0.26] .000	-0.44** [-0.56,-0.30] .000	0.25** [0.09,0.38] .001

Notes. * Indicates statistical significance with no Type I Error correction. ** Indicates statistical significance with Holm-Bonferroni correction. For the UBRS, $n = 171$; For all other scales, $N = 182$. FF = Freeing Finality; FD = Felt Distance; CU = Clear Understanding; EC = Experiential Change; ER = Emotional Release; BD = Behavioural Deactivation; ML = Mental Liberation.

The same analyses were conducted using the PCS subscales to further delineate relations with the other measures (see Table 10). Results yielded statistically significant correlations across PCS subscales; notably, all subscales were found to positively correlate with the UBRS. Table 11 provides a summary of correlational findings amongst PCS subscales and the other measures.

Table 11

Correlational Findings for the Psychological Closure Scale (PCS) Subscales and Other Measures

PCS Subscales	Statistically Significant Correlations
Freeing Finality (FF)	Sudden Restructuring of Experience (SRES) + Unfinished Business Resolution (UBRS) +
Felt Distance (FD)	Sudden Restructuring of Experience (SRES) + Unfinished Business Resolution (UBRS) +
Clear Understanding (CU)	Unfinished Business Resolution (UBRS) +

Experiential Change (EC)	Responses to Emotions (REQ) + Sudden Restructuring of Experience (SRES) + Subjective Impact/Personal Significance (SIPS) + Transitional Impact (TIS) + Centrality of Event (CES) + Unfinished Business Resolution (UBRS) +
Emotional Release (ER)	Need for Closure (NFCS) – Responses to Emotions (REQ) – Mental Itch (MIS) – Subjective Impact/Personal Significance (SIPS) – Transitional Impact (TIS) – Centrality of Event (CES) – Unfinished Business Resolution (UBRS) +
Mental Liberation (ML)	Responses to Emotions (REQ) – Mental Itch (MIS) – Sudden Restructuring of Experience (SRES) – Subjective Impact/Personal Significance (SIPS) – Transitional Impact (TIS) – Centrality of Event (CES) – Unfinished Business Resolution (UBRS) +
Behavioural Deactivation (BD)	Responses to Emotions (REQ) – Mental Itch (MIS) – Sudden Restructuring of Experience (SRES) – Subjective Impact/Personal Significance (SIPS) – Transitional Impact (TIS) – Centrality of Event (CES) – Unfinished Business Resolution (UBRS) +

Notes. Statistical significance was based on Holm-Bonferroni corrections. + and – denote positive and negative correlations, respectively.

PCS model fit. As noted in Study 1, another CFA was conducted on PCS ratings using the current Study 2 sample. Results indicated replication of good model fit: robust $\chi^2(798) = 1162.98, p < .0001$; $\chi^2/df = 1.46$; robust CFI = 0.916; robust RMSEA = 0.057, 90% CI [0.049, 0.064], $p < .0001$; SRMR = 0.095.

Study 2 Discussion

Study 2 aimed to further investigate issues of construct validity for the PCS via correlational analyses involving other measures of constructs expected to be theoretically related (convergent) and unrelated (discriminant) to the construct of psychological closure. As predicted, psychological

closure, using PCS composite ratings, was found to significantly, moderately, and positively correlate with appraisals of unfinished business resolution (UBRS), and to slightly and negatively correlate with the mental itch experience (MIS). Results yielded no statistically significant correlations amongst the PCS and the remaining measures: NFCS (need for closure), REQ (responses to emotions), SRES (sudden restructuring of experience), SIPS (subjective impact/personal significance), TIS (transitional impact), and CES (centrality of event).

That there was no evidence to support statistically meaningful relationships amongst the PCS and each the SIPS and the CES reinforces, at least in part, decisions to remove items assessing personal meaning and self-narrative connections in the scale construction phase (Study 1). The absence of significant correlations between the PCS and each the NFCS and REQ (individual difference measures) also supports the event-specific state, rather than generalized trait, focus of the PCS. Of worthy note, the PCS and CES were found to be statistically significantly related when using the Bonferroni correction but not when using the Holm-Bonferroni correction, the latter of which is more conservative and powerful (Aickin & Gensler, 1996). Still, covarying appraisals of event centrality and closure need not necessarily indicate construct validity for the PCS, and indeed, both may be related via other constructs. For instance, both centrality and closure have been discussed in relation to trauma and post-traumatic stress (e.g., Berntsen & Rubin, 2006b; Flannery, 1999), however this research suggests that closure is likely to be inversely related to appraisals of centrality. Future research may serve to further clarify or qualify the existence and nature of the relationship amongst psychological closure and event centrality to identity and life-story.

The presence of statistically meaningful correlations amongst the PCS subscales and other measures also supports a richer conceptualization of psychological closure as a multidimensional construct. For instance, subscales pertaining to experiential change (EC), emotional release (ER), behavioural deactivation (BD), and mental liberation (ML) were each found to correlate with at

least six of eight measures, while the subscales pertaining to freeing finality (FF), clear understanding (CU), and felt distance (FD) were found to correlate with one or two of the measures. As a testament to the validity of the subscales, for instance, there were moderate-to-strong inverse correlations between the MIS (mental itch) and each the BD and ML subscales, along with moderate positive correlations between the SRES (sudden restructuring of experience) and each the FF and EC subscales. It makes sense that the greater the mental itch, characterised by persistent aversive cognitive arousal and a need to reduce said arousal, the lower one's sense of mental freedom and the greater the urge to take action in search of resolution. It is also conceivable that the restructuring of experience aligns with notions of a welcome shift toward finality (e.g., "This event feels resolved") and experiential change (e.g., "The way I relate to this event has changed"). These relationships are also indicative of appropriate factor labels.

Further, that select PCS subscales positively correlated with some measures, while other subscales negatively correlated with the same measure (e.g., SRES, SIPS, TIS, CES) suggests that psychological closure represents a distinct construct that may be defined at a higher level of abstraction, incorporating or related to some aspects of these other measures, while simultaneously qualifying and extending beyond them to more accurately capture the richness of the construct. To the point raised in Study 1 regarding the potential for appraisals of closure to vary by event type, the PCS subscale correlations suggest possible constellations or profiles of closure based on the event in question (i.e., whether it is deemed significant, transitional, or central to identity) and/or individual differences (i.e., in the need for closure or responses to emotions). Identifying factors that may predict profiles of closure represents an intriguing avenue for future research. Certainly, the current findings speak to the complex interconnectedness of human experience along with the inherent challenges of attempting to disentangle and elucidate a single independent construct. In

any case, that all PCS subscales were found to positively correlate with the UBRS lends additional support for the current multifaceted operationalization of psychological closure.

Limitations

It is important to note that this study lacks evidence of convergence with other validated measures of closure, as they do not exist. The UBRS was included as the next closest measure of resolution and, although it has been widely used, this scale has never been subjected to rigorous validity assessment. The UBRS and the MIS also regard interpersonal relationships and problem-solving processes, respectively. These scale referents stand in contrast to the PCS' focus on autobiographical event-memories. Moreover, significant correlations amongst the PCS and each the UBRS and MIS may not necessarily lend support for the PCS' internal validity – it is possible for two scales to be related while also measuring something different from the intended construct or to relate as predictors, outcomes, or both. Given definitions of closure accord with those for unfinished business resolution, the PCS and UBRS are taken to represent a common construct, albeit with different applications (event-memories vs. interpersonal events). Still, replication of the current methodology with the inclusion of other validated measures of constructs expected to be related to or distinct from psychological closure, along with different samples, would serve to contextualize the current findings and further clarify issues pertaining to construct validity for the PCS.

Further, as with Study 1, the PCS items in the current study were presented in a randomized fashion for the purpose of testing model fit in a new sample, while items for the other scales were presented in a fixed order. This raises questions about whether the order of item presentation (e.g., allowing error variance to be evenly dispersed across PCS items vs. potentially restricting it to latter items due to response fatigue) may qualify the current findings – yet another focus for future work.

Future Directions

In sum, results from Study 2 revealed statistically significant relationships amongst psychological closure and each the mental itch experience and interpersonal resolution and a lack of significant correlations with the remaining measures (e.g., NFCS, TIS). These findings, together with those regarding the PCS subscales, offer preliminary evidence for convergent and discriminant validity, hence construct validity, for the PCS. Future research aimed at furthering this aim could: (a) clarify relations amongst closure and event centrality, (b) investigate factors suspected to identify, qualify, or predict profiles of closure, (c) replicate the current methodology using validated measures of constructs predicted to be related to closure, and (d) examine the influence of item ordering. Yet another useful means of assessing construct validity is to investigate the relative malleability of closure ratings in response to controlled manipulations expected to exert effects - Study 3 presents one such experimental paradigm.

CHAPTER 4
EFFECTS OF NARRATIVE PERSPECTIVE AND MENTAL FOCUS
ON PSYCHOLOGICAL CLOSURE AND EMOTION

With a measure in place, it was then possible to explore factors that might influence psychological closure. In the context of retrieving and writing about open memories, these factors were hypothesized to be those that help individuals to psychologically separate from the self contained in the memory and meaningfully integrate the past self and event within an overarching conceptual self-view and life narrative. The aim of Study 3 was to investigate how narrative perspective shift sequences (first-to-third vs. third-to-first) interact with levels of mental focus (experience vs. coherence) to influence appraisals of unresolved distressing event-memories in terms of closure and aspects of emotion at recall (valence, intensity, reactivity). Additional aims were to explore carry-over effects 1-2 days later, and relations amongst narrative perspective shifting, cognitive avoidance, and perceived centrality of the event to identity and life-story.

Recall that autobiographical memories can be envisioned as if from one's own eyes at the time of the event (first-person perspective) or from the eyes of an observer so that one mentally sees themselves as well as the surroundings (third-person perspective; Nigro & Nesser, 1983). First-person imagery can result from using a first-person pronoun ('I') in written accounts of past events, whereas third-person imagery can result from using a third-person pronoun ('He/She'; Gu & Tse, 2016). As it relates to construal level theory (Trope & Liberman, 2010), imagery and narrative perspectives are regarded as manipulations of construal, hence psychological distance, *within* the realm of mental simulation. That is, when recalling a past event (which by definition is objectively distant from present experience), perspectives can be dynamically altered to glean both abstract (third-person) and concrete (first-person) understandings of the event. If perspective influences psychological distance, then determinants of perspective might also influence distance, and thus,

appraisals implicated by distance including closure and emotion. That is, when all else is equal, shifting from the first-person to the third-person, or factors that support this shift, may serve to extend psychological distance (which accords with self-enhancement and self-verification motives), whereas a shift from third to first (operating “against the grain”) might fix or narrow this distance.

The phrase ‘*shift-to-first*’ is used to refer to the pronoun/imagery perspective shift sequence from third-person to first-person, whereas ‘*shift-to-third*’ refers to the shift sequence from first-person to third-person. The combination of imagery and pronoun use is denoted ‘*narrative perspective*.’ As previously reviewed, narrative perspective shifts can produce asymmetrical effects on emotion, with a shift-to-third leading to reduced emotional intensity at recall and a shift-to-first producing in no change in intensity, irrespective of event valence (e.g., Gu & Tse, 2016; Robinson & Swanson, 1993).

Just as visual imagery and pronoun use can be said to inform psychological distance, so too can *mental focus*, or the relative emphasis placed on features of events upon retrieval (Libby & Eibach, 2009, 2011a). An *experience focus* consists of reporting on the event’s concrete details, whereas a *coherence focus* entails reporting on its self-narrative significance. Mental focus has been shown to be intricately and bidirectionally related to imagery perspective (Libby & Eibach, 2002, 2005, 2009, 2011a). If different levels of mental focus (coherence vs. experience), like perspective (third vs. first), represent different methods of event construal (abstract vs. concrete), then perhaps mental focus, independently or in combination with narrative perspective shift sequences, can further inform appraisals of closure and emotion. Indeed, in contrast to an experience focus, a coherence focus explicitly prompts self-narrative integration, which has been suggested to characterize adaptive self-reflection (Kross & Ayduk, 2011; Libby & Eibach, 2011b).

To elucidate the effects of construal methods on closure and emotion, Study 3 implemented different levels of mental focus (experience vs. coherence) following the narrative perspective shift

sequences (shift-to-first vs. shift-to-third), within a 15-minute recall and writing task. To address whether narrative perspective shifting and/or mental focus drives increases or decreases in ratings of closure and emotion, additional aims were to examine how writing conditions compared to thinking alone (control) and whether any effects would hold 1-2 days following the intervention. Implications for cognitive avoidance and perceived centrality of the event were also explored.

This study serves to elucidate effective construal method interventions and the potential malleability of emotional reactions to, and appraisals of, significant personal events (see also, Beike & Crone, 2012, who argue that such events are fixed in their meaning, save for when emotional response is sufficiently low). Given the potential damaging effects of chronic unresolved (open) memories, such as lowered self-esteem (e.g., Beike et al., 2004), brooding rumination (e.g., Gruber et al., 2011), and related psychopathological consequences (e.g., Nolen-Hoeksema, 2000), it is important to establish ways of helping people achieve greater closure for such bothersome memories.

To expound on the utility of methods of construal, and sequences thereof, I begin with a review of the most widely researched tool for autobiographical event representation - vantage points used during recall.

Visual Imagery Perspective

Visual imagery perspective is a reliable feature of memory and has been consistently related to the intensity of emotion experienced at recall: first-person imagery tends to be associated with greater emotional intensity, relative to third-person imagery (e.g., Siedlecki, 2015; Sutin & Robins, 2010). According to Kross and colleagues (Ayduk & Kross, 2008; Kross & Ayduk, 2008; Kross et al., 2005), a third-person perspective affords greater distance from the experiential self contained in the memory, which attenuates emotional reactivity. In their view, a third-person perspective promotes adaptive reflection by fostering the reconstrual (vs. recounting) of events, and thus,

buffers against rumination and the negative effects thereof. Others have suggested that a third-person perspective serves a cognitive avoidance mechanism for trauma memories (McIsaac & Eich, 2004), which in turn, inhibits access to affective information (Robinson & Swanson, 1993). Research pointing to both self-distancing and avoidance functions of imagery perspective, therefore, align with the *self-distancing view* (i.e., that a third-person perspective serves to blunt emotion relative to a first-person perspective), but disagree in attributions of adaptive value. Exploring the degree to which individuals wish to avoid or push away their thoughts and feelings about their unresolved event-memories may therefore provide insight as to whether the current recall and writing tasks offer adaptive means of reconciliation.

Libby and colleagues (Libby & Eibach, 2011b; Libby, Valenti, Pfent, & Eibach, 2011) provide a more nuanced, but not entirely incompatible, account of how imagery perspective influences emotion. In their view, instead of leading people to adopt a detached interpretation of an event, third-person imagery allows people to integrate it within a broader framework of general self-views (e.g., regarding personal traits, values, life themes, goals), and their emotional reactions reflect the subjective meaning that results (e.g., Libby et al., 2011). Thus, in order for a third-person perspective to promote adaptive coping and emotion regulation, an adaptive self-theory must also be specified (e.g., self-change/stability) to guide the meaning-making and emotional reaction that occurs (Libby & Eibach, 2011b). This account naturally accords with the *self-integration view* of imagery perspective (i.e., that the function of imagery perspective depends upon current self-theories). For instance, if one believes that they have changed significantly since the occurrence of an event (i.e., they hold a theory of self-change), then third-person imagery (vs. first-person imagery) should accentuate this change along with any emotion (in valence and intensity) associated with the change. Conversely, if one believes they have *not* changed over time (i.e., they hold a theory of self-stability), then third-person imagery should highlight enduring characteristics.

According to Libby and Eibach (2011b), without some theory of self-change since the occurrence of an event, people might consider the negative past self as part of the present, in which case third-person imagery could negatively affect well-being (Libby & Eibach, 2011b). For example, third-person imagery has been associated with increased feelings of shame when recalling a past failure, but only for individuals with low self-esteem (i.e., emotional valence accorded with current self-views and so was magnified by a third-person perspective; Libby et al., 2011). Recall that in such a “cognitive-affective crossfire” (Swann et al., 1987), cognitive consistency prevails over affective enhancement. Further, given shame is a self-conscious emotion (Tracy & Robins, 2007) and participants rated themselves in terms of their self-esteem, this study can also be said to lend support for the *self-salience view* (i.e., that third-person imagery magnifies the prominence of the self in memory, and thus, increases associated emotion at recall).

Narrative Pronoun Use

Similar to visual imagery perspectives, different personal pronouns (e.g., I, You, He/She/They) represent different ways of regarding the self in accounts of the personal past. People are able to flexibly switch amongst pronouns in written, verbal, and introspective narration, which can influence emotion regulation (e.g., Chang et al., 2013). For instance, use of first-person singular pronouns in written narratives may undermine adaptive self-reflection (Grossmann & Kross, 2014; Kross et al., 2014), where ‘adaptive’ in this context was taken to refer to emotional down-regulation. Nevertheless, greater use of first-person pronouns in expressive writing has been related to depressive symptomology (Bucci & Freedman, 1981; Rude, Gortner, & Pennebaker, 2004). In an expressive writing task, Park et al. (2016) found that greater use of first-person singular pronouns corresponded with greater self-immersion and less self-distancing (which here, roughly means greater first-person relative to third-person perspective, respectively), however, they did not examine use of third-person pronouns. In analyzing adult diaries, Jin (2010) found that the first-

person pronoun ('I') was associated with the disclosure of feelings, the second-person pronoun ('You') resembled supportive inner dialogue, and third-person pronouns ('He/She') were related to objective sense-making. Jin's (2005, 2010) psychological displacement paradigm in diary writing entails fixed shifts in personal pronoun usage from first to second to third, in order to yield emotional benefits (however, see Seih, Chuang, & Pennebaker, 2011, for evidence to the contrary).

Following from this research, Gu and Tse (2016) manipulated narrative pronoun use to alter visual imagery perspective and examined how different shift sequences influenced emotional intensity. Participants reported on a positive event and a negative event that occurred within the past year on two occasions, separated by 1 week. On each occasion, they used a different pronoun (first or third) to write about the event. A shift-to-third, but not the other way around, was found to attenuate emotional intensity for positive and negative events, and for negative events, this effect was mediated by subjective temporal distance (how far away the event felt irrespective of when it occurred). That is, a shift-to-third lessened the intensity of negative emotion by causing the event to feel further from the present. While these findings appear to support the *self-distancing* account of third-person imagery, mental focus was not incorporated in the design, and appraisals of self-change were not measured, so it is unknown whether they would qualify these effects.

Gu and Tse's (2016) results also indicated a main effect of session, or repeated retrieval, on subjective temporal distance and emotional intensity. That is, emotional intensity decreased with the passage of time (from the first to second session) and by calling the event to mind on multiple occasions. This accords with research demonstrating shifts toward third-person imagery with repeated retrieval (Butler, Rice, Wooldridge, & Rubin, 2016). A design involving single-session shifting would more appropriately control for the effects of time and repeated retrieval. Furthermore, that Gu and Tse (2016) found narrative pronoun use to be related to imagery

perspective suggests that instructing individuals to use imagery and pronouns that agree in perspective (i.e., narrative perspective) could strengthen manipulation adherence.

Given prior research suggesting that a fixed order to narration can inform emotional arousal at retrieval, and emotional arousal relates to closure (Beike & Wirth-Beaumont, 2005), then factors known to influence arousal, such as imagery perspective and pronoun use, should also inform appraisals of closure. To this end, Crawley (2010) examined the effects of imagery perspective on closure (using the scale in Beike & Wirth-Beaumont, 2005) for unresolved events by contrasting three groups: one group recalled an event from the first-person perspective on one occasion (single first-person); the second group recalled an event from the first-person on three occasions (repeated first-person); and the third group recalled an event from the first-person on one occasion then the third-person on two subsequent occasions (repeated third-person). Ratings of closure were found to increase over time for all groups and important predictors included reduced emotional experience and reduced feeling of reliving during recall. Only those in the repeated third-person group showed decreased negative emotion and emotion intensity, aligning with previous findings concerning distancing and third-person recall (e.g., McIsaac & Eich, 2002; McNamara et al., 2005; Williams & Moulds, 2007). These results are, however, confounded with the effects of repeated retrieval (Butler et al., 2016), narrative construction on more than one occasion (Pennebaker & Chung, 2007; Smyth, 1998), and the passage of time (Trope & Liberman, 2010), all of which are known to promote felt distance from the event. As previously reviewed, disclosure or rehearsal are likely not sole determinants of resolution. Other factors that can impact emotion, hence closure, include the degree to which the event is understood (Beike & Wirth-Beaumont, 2005), personally significant (Robinson, 1996; Sonnemans & Frijda, 1995), and relevant to identity (Singer & Salovey, 1993) and life story (McAdams, 2001). Associations amongst emotion, self, and self-narrative also point

to potential narrative perspective shift effects on appraisals of an event's perceived centrality to identity and life story.

Mental Focus

Mental focus consists of two levels of construal: An *experience focus* involves focusing on what it was like to experience an event directly as if actually there again, noting specific sensorial and contextual elements (e.g., where the event took place, who was involved, what actions were performed, and what was seen, heard, and smelled). Conversely, a *coherence focus* entails focusing on the implications of the event within the context of one's life as a whole, noting how it relates to personal characteristics and other life events (e.g., accomplishments, relationships, and the future; McAdams, 2001; Pillemer, 1998; Vallacher & Wegner, 1985). For example, in recalling the funeral of a loved one, an experience focus might bear to mind the musty smell of the funeral home, the sight of the mahogany casket, family pictures around the room, the sounds of weeps and sobs, or reactions during the eulogy. A coherence focus on this event might instead call to mind lessons learned from the loss, fond experiences with the loved one, the nature of the relationship, or how the loss has informed one's priorities in life and views of the future.

According to Libby and Eibach (2011a, 2011b), imagery perspective shapes the level of meaning derived from event representations by changing individuals' mental focus: first-person images correspond to an understanding of events from the bottom-up, in terms of the phenomenology evoked by concrete features (experience focus), whereas third-person images correspond to an understanding of events from the top-down, in terms of abstractions that integrate the event within a broader context (coherence focus); these levels of meaning correspond to the Jamesian facets of self: "I" (experiential self/self as subject of thought) and "Me" (conceptual self/self as object of thought; James, 1890/1950; Libby & Eibach, 2011a). If third-person imagery promotes experiential self-distancing and conceptual self-integration via a coherence focus, then a

coherence focus itself might foster psychological distance and/or an experience focus might serve to constrict this distance. More abstract methods of construal, then, might aid in adaptive self-reflection by creating sufficient cognitive space within which to reconcile events with current self-views and life-themes, wherein the generation of such space follows some optimal sequence of contemplation and emotional processing.

It is worthwhile, however, to address controversies about whether distancing from emotion in memory represents an adaptive response to difficult experiences. On the one side, “working through” emotion is thought to be a necessary precondition for good adjustment (e.g., Brewin, 1996). Many psychotherapeutic modalities (e.g., experiential therapies) aim to heighten emotional arousal to make the past “come alive” in the present so that new meaning can emerge (e.g., Greenberg, 2011). Further, according to learning-based approaches, experiential avoidance, or attempts to avoid thoughts, feelings, memories, physical sensations and other mental experiences, though reinforcing in the short term, can produce detrimental effects in the long run (e.g., Hayes et al., 1999). Conversely, Beike and Wirth-Beaumont (2005) contend that “letting go” of emotion is sufficient for good adjustment, and they note research suggesting that working through emotions is not necessary for trauma recovery (e.g., Stroebe, 1992; Wortman & Silver, 1989).

Furthermore, although Kross and colleagues (e.g., Kross & Ayduk, 2011) claim that self-distancing facilitates adaptive meaning-making by reducing emotional reactivity, other research has demonstrated that distancing via third-person imagery is related to maladaptive thinking and negative affect (e.g., Finnbogadottir & Berntsen, 2014; Giovanetti, Revord, Sasso, & Haeffel, 2019). Distancing aside, other strategies for coping might involve enhancing positive emotional reactivity (e.g., Brooks, 2014; Crum, Salovey, & Achor, 2013), or working to accept unpleasant emotions wholly and fully (e.g., Hayes et al., 1999). The emotional arousal that characterizes open memories may be considered adaptive in so far as it motivates behavior, whether in action or in

thought (Beike & Wirth-Beaumont, 2005). It is when this behavior goes awry, as in the case of persistent self-focused ruminative thinking about uncontrollable events, that questions of maladaptiveness arise.

Disagreements regarding the adaptive value of “working through” versus “letting go” of emotions, and of repetitive self-focused thinking, are important to understanding how narrative perspective shifting and mental focus may operate to promote adaptive autobiographical event resolution. ‘Adaptive’, here, is taken to refer to good adjustment in response to cognitive, emotional, social, and environmental changes where such adjustment is productive to individuals and associated with psychological health. ‘Maladaptive’ or ‘less adaptive’, then, refers to the inability to adjust well in response to changes, and such reactions are counterproductive and linked to psychological dysfunction. Garnefski, Kraaij, and Spinhoven (2001) contend that “more adaptive” strategies consist of positive refocusing, positive reappraisal, putting events into perspective, refocusing on planning, and accepting events as they happened, whereas “less adaptive” strategies include rumination, blaming oneself, blaming others, and catastrophizing. Thus, every writing manipulation in the current study, by way of inciting different perspectives and ways of reappraising unresolved events, were expected to be theoretically more adaptive than thinking alone, which has been shown to be ineffective in facilitating an integrated understanding of events (Lyubomirsky, Sousa, & Dickerhoof, 2006).

In terms of the ordering of narrative perspectives and mental foci, Angus and colleagues (Angus, Levitt, & Hardtke, 1999; Angus & Greenberg, 2011) contend that emotionally salient descriptions of autobiographical events offer a crucial starting point for the articulation of meaning, and that repeated engagement with, and distancing from, events facilitates this process. In particular, they encourage a fixed pattern of narration from external (what happened) to internal (what was felt) and reflexive (what it means) to promote new ways of experiencing and

understanding past events - key aspects of closure. Indeed, traditional expressive writing instructions involve more than shifts in distance by way of perspective alone: individuals are prompted to “link this event to your past, your present or your future, or to who you have been, who you would like to be, or who you are now...” (Pennebaker & Chung, 2011, p. 419) and “to your relationships” (Park et al., 2016, p. 3) - all features of self-coherence.

In investigating the effects of mental focus on appraisals of transitional events - those that produce marked change in the way people perceive themselves and live their lives (e.g., illness, divorce; Brown & Lee, 2010) - Boucher and Scoboria (2015) found that, relative to an experience focus, a coherence focus incited appraisals of greater psychological impact, material impact, and relevance to identity and life-story. Thus, even ostensibly “fixed” attributions of meaning for key past experiences are subject to change depending on how retrieval occurs. In a follow-up study that explored mental focus effects on emotion, a coherence (vs. experience) focus was found to produce lower ratings of negative affect for negative transitions (Boucher & Scoboria, 2019).

However, contrary to Libby and Eibach (2011a), mental focus did not determine imagery perspective, likely due to the fact Boucher and Scoboria (2015; 2019) cued participants to select events from any point in their past that were themselves characterized by change (i.e., transitional), which as already reviewed, can itself influence both subjective distance and imagery perspective. Due to the fact the present study concerned unresolved memories, which tend to be more emotionally evocative and subjectively closer to the present (vs. closed memories; Beike & Wirth-Beaumont, 2005), mental focus may operate likewise to imagery perspective, but not necessarily in accordance with it. This is because there may be other determinants of psychological distance at play and distance dimensions need not operate in tandem. Further, while both imagery perspective and mental focus vary in levels of construal, they are qualitatively different; that is,

relative to imagery perspective, mental focus more explicitly prompts a focus on sensorial and contextual details (experience; concrete) vs. self-narrative integration (coherence; abstract).

Thus, direct manipulations of mental focus for unresolved event-memories, along with the inclusion of potential mediators (subjective temporal distance, self-change), may further clarify the role of construal and other mechanisms responsible for changes in appraisals of closure and emotion. To the extent a reflexive mode of processing aligns with a coherence focus, the proposed benefits of moving through the details and emotions of difficult experiences in order to move past them suggests that a first-third-coherence focus sequence should progressively broaden the mental landscape within which individuals contemplate unresolved event-memories, thereby increasing closure and reducing emotional reactivity at recall. Conversely, then, a third-first-experience shift should limit this mental scope to include mainly experiential elements, thereby restricting meaning and intensifying memory-induced affect.

Study 3 Hypotheses

Due to the relative lack of literature examining the effects of imagery perspective and pronoun shifts on closure, and in light of the intricate relationship amongst closure and emotion, hypotheses were gleaned through research on imagery perspectives in isolation and their effects on memory-induced emotion, with emphasis placed on the perspective individuals were instructed to adopt last (third vs. first).

Hypothesis 1: Psychological closure and emotion. Appraisals of closure were predicted to inversely correlate with appraisals of emotional valence, intensity, and reactivity upon recall, thus, findings for closure were predicted to parallel those for emotion. Given a shift-to-third is expected to foster a coherence focus, which is thought to support both experiential self-distancing and conceptual self-integration (increasing psychological distance), then adding explicit instructions to adopt a coherence focus to the shift-to-third sequence should produce ratings of greater closure and

lower negative affect and emotional reactivity relative to all other groups, including the control condition. Conversely, if a shift-to-first supports an experience focus, hence, experiential self-immersion (decreasing distance), then adding this focus to the shift-to-first sequence should lead to ratings of lower closure and higher negative affect and emotional reactivity than all other groups.

According to the self-salience view, the opposite pattern of findings should be observed, with the shift-to-first condition reporting greater closure and lower negative emotionality, on average, relative to the shift-to-third condition. In either case, the control group was expected to produce the lowest mean ratings of closure and the highest mean ratings of negative affect and emotional reactivity as compared to the other groups.

Hypothesis 2: Psychological closure and mediators. According to the self-distancing view of imagery perspective, subjective temporal distance should mediate the effects of perspective shifting and mental focus on closure, with a shift-to-third inciting greater distance (particularly for those who adopt a coherence focus), and a shift-to-first inciting less distance (particularly for those who use an experience focus). Per the self-integration view of imagery perspective, perceived self-change should mediate these effects, with a shift-to-third prompting a greater focus on self-change and a shift-to-first inciting a greater focus on self-stability.

Hypothesis 3: Psychological closure and emotion over time. The above effects were expected to remain statistically meaningful 1-2 days following the intervention, and possibly more pronounced due to the presence of determinants of distancing and closure (e.g., passage of time).

Hypotheses 4: Cognitive avoidance and event centrality. To the extent self-distancing and self-integration, via abstract construal methods, promote adaptive self-reflection, and avoidance is known to be a maladaptive approach to resolution, then those writing conditions that promote engagement (first-person) followed by distance (third-person, coherence focus) were predicted to incite ratings of less avoidance and greater identity centrality, relative to the other conditions.

Study 3 Methods

Study 3 Design

This study employed a 2 (narrative perspective shift sequence: shift-to-first vs. shift-to-third) x 2 (mental focus: coherence vs. experience) repeated measures (time: intervention vs. 1-2 days later) experimental design with a control condition. A control condition was included to allow for direct contrasts with the most common means of attempting to achieve resolution - focused thinking. Participants were randomly assigned to one of four recall and writing conditions (narrative perspective shift x mental focus) or the control condition (five groups).

Study 3 Participants

A total of 409 undergraduates participated in Part 1 of the study. Inclusion criteria consisted of English as a primary language and the willingness to report on an unresolved event in a research context. Twenty-two cases were removed *a priori* for incomplete participation, manipulation non-adherence, and/or failing to select an unresolved event. An additional 10 cases were removed for extreme responding (± 3 SDs) and/or excessive missingness ($> 7\%$) on the main dependent measures. A total of 377 participants adequately completed Part 1 of the study (83.9% female, 16.1% male, 0% other; $M_{age} = 20.77$ years, $SD = 5.45$, range = 17 - 57; 63.2% White/Caucasian, 12.2% Middle-Eastern, 8.3% Asian, 7.8% Multiethnic, 7.3% Black/African, 0.3% Hispanic/Latino, 1% other/not specified; 62.7% arts and social sciences majors; 27.7% natural sciences majors; 8.8% business and economics majors; 0.8% other/not specified).

Of these, 13 individuals failed to complete Part 2, and an additional 13 were removed for extreme responding and/or excessive missingness at Time 2, resulting in a final sample of 351 (85.5% female, 14.5% male, 0% other; $M_{age} = 20.84$, $SD = 5.59$, range = 17 - 57; 58.2% White/Caucasian, 13.6% Multiethnic, 9.7% Middle-Eastern, 9.2% Asian, 6.7% Black/African, 0.3% Hispanic/Latino, 0.8% other/not specified; 62.1% arts and social sciences majors; 28.7% natural

sciences majors; 8.6% business and economics majors; 0.6% other/not specified; see *Preliminary Diagnostics* below for more information on inclusion and exclusion criteria).

Study 3 Materials and Measures

Baseline emotion. In line with previous research (e.g., Ayduk & Kross, 2010), participants provided baseline ratings of emotional reactivity, to be controlled in the analyses. They rated how happy (1 = *very unhappy*, 9 = *very happy*) and aroused (1 = *calm*; 9 = *frenzied*) they felt using the valence and arousal subscales of the Self-Assessment Mannequin (SAM; Bradley & Lang, 1994), a quick non-verbal measure of emotional reactivity (Appendix P). The SAM has demonstrated good convergent validity with other measures of affect (see, Mehrabian & Russell, 1974).

Psychological closure. Psychological closure was assessed using the newly developed PCS (Appendix G), a 42-item self-report measure of autobiographical event resolution. The PCS consists of seven subscales: Freeing Finality (FF), Clear Understanding (CU), Felt Distance (FD), Emotional Release (ER), Experiential Change (EC), Mental Liberation (ML), and Behavioural Deactivation (BD). This scale has demonstrated good convergent validity, test-retest reliability (in the current sample), $r(349) = 0.86 [0.83, 0.89]$, $p < .001$, and internal consistency (see *Study 2 Results*): current full scale $\alpha = .94$ (Time 2 $\alpha = .96$), and subscale α range = .80 to .92 (Time 2 α range = .85 to .95).

Emotion valence, intensity, and reactivity. State affect following the manipulation was assessed using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988; Appendix Q), which is comprised of two 10-item subscales: Positive Affect (PA; current Time 1 $\alpha = .87$; Time 2 $\alpha = .91$) and Negative Affect (NA; Time 1 $\alpha = .84$; Time 2 $\alpha = .89$). This measure prompts participants to rate the extent to which they feel certain emotions (e.g., upset, proud) on a scale from 1 (*very slightly or not at all*) to 5 (*extremely*). Three additional items that employ 7-point Likert scales (drawn from Johnson et al., 1988; Rubin et al., 2003; Appendix R) were also used to assess emotional valence, intensity, and reactivity upon recall. The validity of

these items is derived from their demonstrated utility in numerous studies concerning recollective memory (e.g., Boucher & Scoboria, 2015; D'Argembeau & Van der Linden, 2008; Rubin et al., 2003; Scoboria et al., 2014).

Temporal and self-distance. Objective temporal distance was calculated using participants' present age and estimated age at the time of the event. One item was used to assess subjective temporal distance, or the felt distance of the event irrespective of when it was dated to have occurred (per Libby & Eibach, 2011a; Ross & Wilson, 2002). Two items were used to assess the degree of perceived self-change in relation to the event (adapted from A. Aron, E. Aron, & Smollan, 1992; Crawley, 2010; Appendix S); these items were averaged to create an index of self-change (Time 1 $\alpha = .84$; Time 2 $\alpha = .81$).

Manipulation checks. In addition to examiner reviews of participant narratives, participants also rated the degree to which they felt they adhered to the narrative perspective and mental focus instructions (adapted from Libby & Eibach, 2011a) along with the degree of difficulty in doing so using 7-point Likert rating scales (adapted from Gu & Tse, 2016; Appendix T).

Cognitive avoidance. Ratings on two items ("When prompted to recall this experience: I tried to avoid thinking about it" and "I tried to suppress (push away) my feelings about it"; 1 = *strongly disagree*; 7 = *strongly agree*) were averaged to create an avoidance index (Ayduk & Kross, 2010; Kross et al., 2012; Appendix U). Current Time 1 $\alpha = .87$, and Time 2 $\alpha = .89$.

Event centrality. The 7-item short form of the Centrality of Event Scale (CES; Berntsen & Rubin, 2006b; Appendix K) measures how central an event is perceived to be in relation to one's identity and life story. Items (e.g., "I feel that event has become part of my identity") are anchored 1 (*totally disagree*) to 5 (*totally agree*). The scale has good reliability ($\alpha = .88$; current $\alpha = .89$).

Open-ended questions. Two open-ended questions were included to allow participants the option to further describe their event and/or provide feedback about the study (Appendix D).

Demographics. Participants completed the open-response demographics questionnaire (Appendix E).

Study 3 Procedure

This study comprised two parts: Part 1 (Time 1) entailed the narrative perspective shift and mental focus manipulations in a campus laboratory, and Part 2 (Time 2) consisted of an online survey with identical dependent measures that was completed 24 – 48 hours later (see Figure 3 for an overview of the procedures). Participants provided informed consent prior to each Part 1 (via a signed hard copy of the consent form with opportunities to seek clarification with the research administrator) and Part 2 (via the submission of an online consent form). All procedures received ethics clearance through the University of Windsor’s Research Ethics Board.

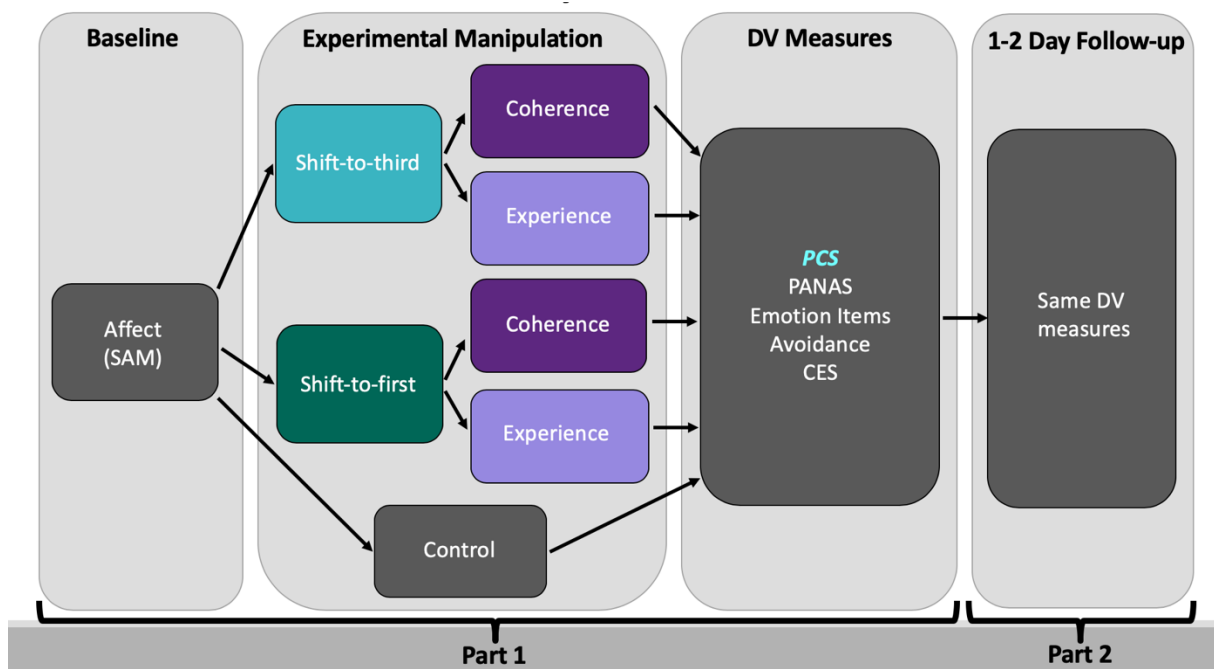


Figure 3. Illustration of procedures for Study 3: Effects of narrative perspective shift sequences and mental focus on psychological closure and emotion. SAM = Self-Assessment Manikin. PANAS = Positive and Negative Affect Schedule. CES = Centrality of Event Scale.

During Part 1, participants were randomly assigned to one of five conditions in a 2 (narrative perspective shift sequence: shift-to-first vs. shift-to-third) x 2 (mental focus: coherence vs. experience) repeated measures design with a control condition, which involved neither narrative perspective shifting nor mental focus instructions. For the experimental conditions, the narrative perspective shift instructions preceded mental focus instructions. After providing baseline ratings of affect using the SAM, participants were prompted to retrieve a currently unresolved distressing event that they were involved in and that occurred within the past 6 years but not in the last month (see Appendix V for verbatim instructions). The time frame for event cues was provided as a compromise amongst internal and external validity; it offered people a specified range within which to select an event rather than tightly controlling the content and age of the event, thereby increasing the generalizability of the findings without drastically altering the accessibility of both concrete and abstract event elements.

Following event selection, participants were presented with the narrative perspective shift instructions, which were adapted from Gu and Tse (2016) to include a statement of visual imagery (derived from Libby et al., 2005) in an effort to strengthen manipulation adherence and allow for more confident inferences regarding imagery perspective. Individuals in the shift-to-first condition were exposed to the third-person imagery/pronoun instructions prior to the first-person instructions (and vice versa for the shift-to-third condition). Following the narrative perspective shift manipulation, individuals were presented with one of two mental focus instructions (coherence vs. experience; Boucher & Scoboria, 2015; Libby & Eibach, 2011a; Appendix W), depending on their assigned condition. Instructions pertained to the same event throughout. In line with Park et al. (2016), those in the control condition were asked to “Please think about your event in a true and honest manner for the next 15 minutes,” without instructions to adopt any perspective or mental

focus. Groups were matched in terms of total time allotted for reflecting on the event by virtue of the survey auto-advancing after 15 minutes.

All participants then provided ratings on the main dependent measures (PCS, PANAS, emotional valence, intensity, and reaction), potential mediating variables (subjective temporal distance, self-consistency), manipulation checks, exploratory measures (cognitive avoidance, CES), and optional open-ended questions about their event and their experience in the study. One day following the successful completion of Part 1, participants were invited to participate in Part 2, which consisted of an online survey regarding the same event and containing the same measures. They were given another day to complete Part 2 of the study.

Study 3 Results

Descriptive statistics, including sample sizes (n), means (M), standard deviations (SD), and associated 95% confidence intervals (CIs) for the PCS, aspects of emotion, and exploratory variables are provided for all narrative perspective shift by mental focus conditions along with the control condition. In line with Cumming (2014), interpretations of statistical meaning were derived from mean differences, unbiased standardized effect sizes (d_{unb}), and 95% CIs, which are more conducive to transparent reporting and accurate interpretation. This analytical strategy also aligns with prior works that investigated mental focus (Boucher & Scoboria, 2015; 2019). Where more complex statistical procedures (i.e., multiple linear regressions, mediation models) were used, α *a priori* was set at .05, corresponding to a 95% CI.

Preliminary Diagnostics

Manipulation fidelity. Prior to the main analyses, participants' narratives were reviewed for manipulation adherence by independent raters (i.e., to verify selection of an unresolved event, reference to the same event at both time points, use of specified pronouns and mental foci), with high agreement, $\kappa = 0.95$. A coding scheme ranging from 1 (total non-adherence) to 4 (total

adherence) was applied to indicate manipulation fidelity. Using a conservative approach to elimination, only those narratives with a code of 1 and a perspective shift difference of 0 or 1 were removed. It was judged that 94.62% of the Part 1 sample sufficiently followed the narrative perspective shift and mental focus instructions. A total of 22 participants (5.38%) were excluded due to manipulation non-adherence; of these, one did not select an unresolved event, and one did not report on the same event for Part 2.

Manipulation adherence was also assessed using the self-rated narrative perspective and mental focus check items. Results indicated manipulation fidelity for the first-person narrative perspective, $M = 6.12$ [5.95, 6.28], $SD = 1.23$, and third-person narrative perspective, $M = 5.45$ [5.24, 5.66], $SD = 1.57$ (scores > 4 were deemed sufficient). First-person adherence ratings were statistically meaningfully higher, on average, relative to third-person adherence ratings, $M_{diff} = 0.67$ [0.40, 0.94], $d = 0.47$ [0.28, 0.66]. Difficulty with narrative perspective adherence was also analysed: Participants indicated greater difficulty, on average, with using a third-person narrative perspective, $M = 3.78$ [3.55, 4.01], $SD = 1.80$, relative to a first-person narrative perspective, $M = 2.06$ [1.89, 2.23], $SD = 1.34$, $M_{diff} = 1.72$ [1.44, 2.00], $d_{unb} = 1.08$, [0.89, 1.27]. Finally, mental focus adherence ratings suggested fidelity for coherence and experience focus conditions: $M = 5.13$ [4.88, 5.37], $SD = 1.38$, and $M = 4.88$ [4.60, 5.15], $SD = 1.55$, respectively, with no statistically meaningful difference amongst conditions, $M_{diff} = 0.25$ [-0.11, 0.61], $d_{unb} = 0.17$ [-0.08, 0.42].

Of those participants who also completed Part 2 ($N = 366$), two were removed for failing to report on the same event. The remaining cases were found to have completed Part 2 within the allotted timeframe (< 2.5 days following Part 1), $M = 1.30$ days [1.26, 1.33], $SD = 0.38$. In total, 364 participants completed the entire study and satisfactorily met *a priori* requirements.

Missingness. For Part 1, missing values analyses (MVA) for the PCS and PANAS revealed that missing data were missing completely random, Little's MCAR $\chi^2(3120) = 3212.04$, $p = .123$,

with no items exceeding 0.5% missingness. The same was true for Part 2 responses, Little's MCAR $\chi^2(3575) = 3639.34, p = .222$, however, five Part 2 cases were removed for excessive missingness ranging from 7% to 36.7%. The remaining cases did not exceed 2.1% missingness. Missing data were imputed using expectation maximization (to allow for additional PCS model testing). Eight cases were removed for extreme responding on the PCS (> 3.0 SDs on either side of the mean).

Final sample and power. In all, there were a total of 377 participants who adequately completed Part 1 (original $N = 409$; total exclusions = 7.82%), and 351 participants who adequately completed both Parts 1 and 2 (original $N = 364$; total exclusions = 3.57%). Group contrasts involving the PCS and PANAS were conducted using the full Part 1 sample and the Part 1 subsample (who also completed Part 2), indicating similar main findings.

In addition to a sufficiently large sample size, maximization of power was attempted via the maintenance of a controlled experimental environment, inclusion of manipulation checks, analysis of narratives by independent raters, use of a conservative approach to *a priori* exclusions, and screening for statistical assumption adherence (see below). Nevertheless, given Time 2 analyses were ancillary to those for Time 1, the demographics and main findings were similar for the full and sub samples in Part 1, and that a larger sample supports more confident reporting when covariates are included, the decision was made to retain the 26 cases who did not complete or did not sufficiently complete Part 2 for the main Time 1 analyses.

Statistical assumptions. For group contrasts with covariates (SAM ratings, gender, narrative perspective shift difficulty ratings), visual inspection of scatterplots (using loess lines) indicated linear relationships among each covariate and the PCS for each cell of the design; a comparison of the two-way ANCOVA model with and without interaction terms indicated homogeneity of regression slopes, $F(5, 341) = 0.84, p = .519$; visual inspection of studentized residuals by unstandardized predicted values indicated homoscedasticity; Levene's test of

homogeneity of variance indicated that the error variance was identical for all combinations of narrative perspective shift sequences, mental foci, and the covariates, $p = .235$; there were no extreme values for one or more of the covariates (leverage values < 0.02 ; below 0.20), influential observations (Cook's Distance values < 0.04 ; below 1), and the data were determined to be normally distributed based the Shapiro-Wilks test (all values for each level of each independent variable were not statistically significant, $ps > .05$), and plots of standardized by studentized residuals (points aligned on the diagonal).

With respect to MRA assumptions, the study design and Durbin-Watson statistic (1.66) indicated independence of residuals; visual inspection of studentized residuals by unstandardized predicted values indicated that the conditions and possible mediating variables (subjective temporal distance, self-change) were each collectively linearly related to the PCS composite and the residuals were approximately equal for all predicted values (reflecting homoscedasticity); and the partial regression plot indicated an approximate linear relationship between each potential mediator and the PCS. Tolerance values ranged from 0.96 (subjective temporal distance) to 0.99 (self-change; above 0.10) and correlational analyses indicated absence of multicollinearity (all $rs < |0.15|$; below $|0.70|$). There were no leverage points (values < 0.02), influential observations (Cook's < 0.04), and the histograms ($M = 0$, $SD = 1$) and residual plots indicated the data were normally distributed.

Event Types. The unresolved events selected by individuals were categorized into the following groups: relationships/self, health/existence, education/training, occupation/finance, travel/relocation, and other (see Table 12 for proportions). It was possible for a single narrative to be coded under multiple categories. Across groups, the majority of events were relational and/or self-relevant in nature (e.g., break-up, identity change; 73%) and/or regarded threats to health or life (e.g., diagnoses, abuse; 46%). The types of events reported within each condition were similar.

Table 12

Proportions of Unresolved Event Types by Experimental Group and Overall

	Shift to First			Shift to Third		Total (<i>N</i> = 377)
	Control (<i>n</i> = 134)	Experience (<i>n</i> = 64)	Coherence (<i>n</i> = 62)	Experience (<i>n</i> = 57)	Coherence (<i>n</i> = 60)	
Relationships/Self-image	0.63	0.78	0.78	0.78	0.74	0.73
Health/Existence	0.46	0.45	0.44	0.47	0.44	0.46
Education/Training	0.04	0.09	0.06	0.05	0.03	0.05
Occupation/Finance	0.01	0.06	0.06	0.07	0.08	0.05
Travel/Relocation	0.01	0.30	0.17	0.20	0.19	0.15
Other	0.01	0.01	0.00	0.00	0.00	0.01

Notes. Proportions of event types were calculated out of the total number of events (*n*) within each group. Events could be coded under multiple categories, thus, group totals may not add to 100%.

Effects of Narrative Perspective Shifting and Mental Focus on Closure

Bivariate correlations were used to examine control factors suggested in prior research: baseline state affect (Ayduk & Kross, 2010), gender (Beike & Wirth-Beaumont, 2005), and self-reported difficulty in adhering to the manipulation instructions (Gu & Tse, 2016). Statistically significant correlations were found for the PCS composite and each the SAM composite, $r(375) = -0.25 [-0.34, -0.15]$, $p < .001$; gender, $r(375) = 0.21 [0.11, 0.31]$, $p < .001$; and difficulty $r(375) = -0.12 [-0.22, -0.02]$, $p = .012$. Higher closure ratings corresponded with lower SAM ratings (pleasure and arousal), lower difficulty ratings, and with identifying as male relative to female (there were no other gender identifiers provided by participants). Memory age (a slightly more objective indicator of distance), was calculated using participants' current age and their estimated age at the time the event occurred. The age of memories were similar across groups (all CIs included zero). Hence, SAM scores, gender, and difficulty were controlled in the main analyses. See Table 13 for descriptive statistics on memory age, the PCS composite, and the PCS subscales by group.

Table 13

Memory Age and Psychological Closure Scale (PCS) and Subscale Scores by Group

	Control (<i>n</i> = 134)		Shift-to-First				Shift-to-Third			
			Experience (<i>n</i> = 64)		Coherence (<i>n</i> = 62)		Experience (<i>n</i> = 57)		Coherence (<i>n</i> = 60)	
	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>
Memory Age	2.57 [2.15, 3.00]	2.78	2.48 [1.85, 3.10]	2.27	2.32 [1.68, 2.94]	2.27	2.72 [2.06, 3.38]	2.13	2.60 [1.96, 3.24]	2.72
PCS-Full	3.32 [3.16, 3.48]	0.84	3.67 [3.44, 3.90]	0.97	3.66 [3.42, 3.90]	0.92	3.23 [2.98, 3.48]	0.93	3.38 [3.14, 3.61]	1.02
PCS-FF	2.65 [2.45, 2.86]	1.11	3.01 [2.72, 3.31]	1.27	2.91 [2.60, 3.21]	1.27	2.50 [2.18, 2.82]	1.15	2.80 [2.49, 3.10]	1.45
PCS-CU	4.42 [4.16, 4.67]	1.47	4.85 [4.50, 5.19]	1.38	4.93 [4.57, 5.29]	1.33	4.59 [4.21, 4.96]	1.42	4.48 [4.13, 8.84]	1.44
PCS-FD	3.13 [2.89, 3.38]	1.49	2.97 [2.64, 3.30]	2.88	2.73 [2.38, 3.07]	2.56	2.79 [2.43, 3.15]	2.96	2.82 [2.48, 3.16]	2.92
PCS-ER	2.28 [2.08, 2.48]	0.96	2.66 [2.37, 2.96]	1.23	2.98 [2.68, 3.28]	1.26	2.27 [1.95, 2.59]	1.02	2.52 [2.22, 2.82]	1.24
PCS-EC	3.96 [3.71, 4.22]	1.39	3.88 [3.51, 4.24]	1.47	3.79 [3.42, 4.16]	1.36	3.83 [3.44, 4.22]	1.49	3.77 [3.40, 4.14]	1.42
PCS-ML	3.89 [3.64, 4.14]	1.42	4.60 [4.24, 4.95]	1.41	4.79 [4.42, 5.15]	1.44	3.80 [3.41, 4.18]	1.50	4.17 [3.80, 4.53]	1.63
PCS-BD	3.78 [3.51, 4.05]	1.44	4.54 [4.16, 4.91]	1.44	4.42 [4.03, 4.81]	1.56	3.73 [3.32, 4.14]	1.48	3.77 [3.39, 4.16]	1.54

Notes. FF = Freeing Finality; CU = Clear Understanding; FD = Felt Distance; ER = Emotional Release; EC = Experiential Change; ML = Mental Liberation; BD = Behavioural Deactivation. Reference group is the shift-to-first condition. Means are adjusted, controlling for baseline affect, gender, and narrative perspective difficulty.

Group contrasts based on adjusted means indicated a statistically meaningful effect of narrative perspective shifting on PCS ratings: The shift-to-first condition reported higher ratings of closure, on average, relative to the shift-to-third condition, $M_{diff} = 0.37$ [0.13, 0.61], $d_{unb} = 0.39$ [0.13, 0.64], and the control condition, $M_{diff} = 0.35$ [0.13, 0.57], $d_{unb} = 0.39$ [0.15, 0.64], while the shift-to-third condition did not statistically differ from the control condition, $M_{diff} = 0.06$ [-0.17, 0.29], $d_{unb} = 0.07$ [-0.19, 0.32]. There were no statistically meaningful effects of mental focus on

closure, $M_{diff} = 0.06 [-0.17, 0.31]$, $d_{unb} = 0.07 [-0.18, 0.32]$. Within the experience focus condition, the shift-to-first group indicated statistically meaningfully higher average ratings of closure relative to the shift-to-third group, $M_{diff} = 0.44 [0.10, 0.78]$, $d_{unb} = 0.46 [0.10, 0.82]$, and the control group, $M_{diff} = 0.35 [0.09, 0.61]$, $d_{unb} = 0.40 [0.09, 0.69]$. Within the coherence focus condition, ratings of closure amongst narrative perspective shift groups did not meaningfully differ, $M_{diff} = 0.28 [-0.07, 0.63]$, $d_{unb} = 0.29 [-0.07, 0.64]$, however the shift-to-first-coherence group indicated higher average ratings of closure relative to the control group, $M_{diff} = 0.34 [0.08, 0.60]$, $d_{unb} = 0.39 [0.09, 0.69]$. All other group contrasts approximated zero (CIs included zero). Refer to Figure 4 for an illustration of these effects.

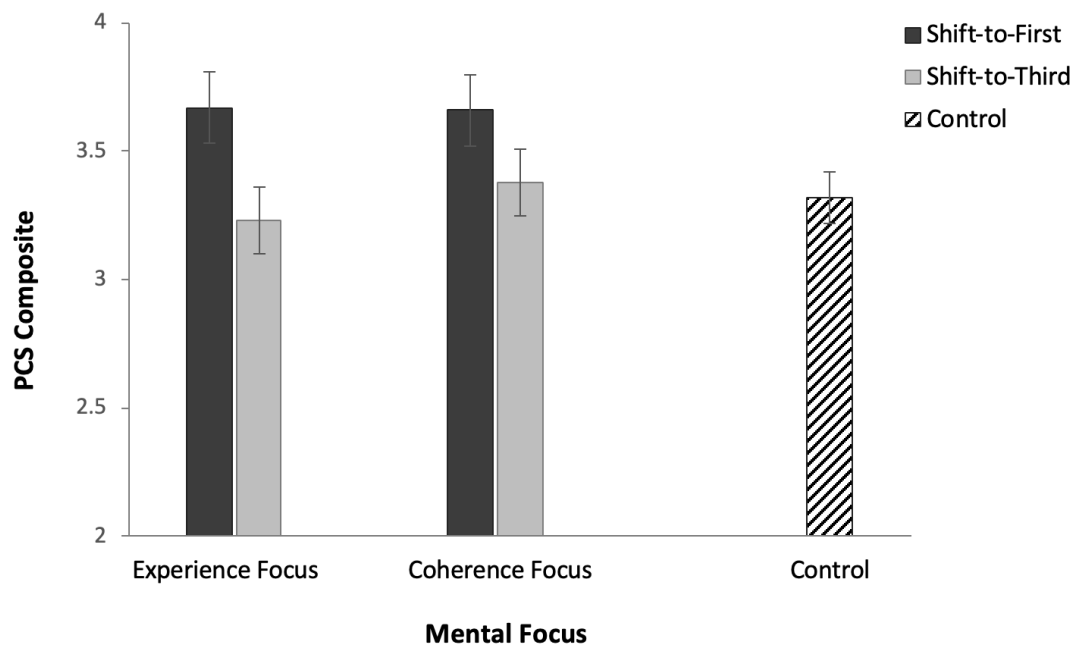


Figure 4. Psychological Closure Scale (PCS) composite mean ratings by experimental condition. The scale ranges from 1 (low closure) to 7 (high closure), hence the vertical axis represents the low-to-mid segment of the full scale range. Error bars indicate 95% confidence.

Analysis of the PCS subscales (see Table 14) revealed that narrative perspective shift effects on ratings of closure were primarily driven by statistically meaningful differences for the Freeing

Finality (FF), Emotional Release (ER), Behavioural Deactivation (BD), and Mental Liberation (ML) subscales. The shift-to-first condition indicated higher ratings on the FF, ER, BD, and ML subscales, on average, relative to the shift-to-third condition. The shift-to-first condition also reported higher average ratings than the control condition across subscales, save for Experiential Change (EC). There were no statistically meaningful differences amongst shift-to-first and shift-to-third conditions on the following PCS subscales: Clear Understanding (CU), Experiential Change (EC), and Felt Distance (FD). Refer to Figure 5 for an illustration of these effects.

Table 14

Mean Differences, Effect Sizes, and Confidence Intervals for the Psychological Closure Scale (PCS) and Subscales Amongst Narrative Perspective Shift and Control Conditions

PCS Composite and Subscales	Contrast: Shift-to-First vs.	M_{diff} [95% CI]	d_{unb} [95% CI]
PCS Composite	Shift-to-Third	0.37 [0.13, 0.61]	0.39 [0.13, 0.64]*
	Control	0.35 [0.13, 0.57]	0.39 [0.15, 0.64]*
Freeing Finality (FF)	Shift-to-Third	0.32 [0.02, 0.64]	0.26 [0.02, 0.53]*
	Control	0.31 [0.03, 0.59]	0.27 [0.02, 0.51]*
Clear Understanding (CU)	Shift-to-Third	0.22 [-0.13, 0.57]	0.16 [-0.09, 0.41]
	Control	0.41 [0.07, 0.75]	0.29 [0.05, 0.53]*
Felt Distance (FD)	Shift-to-Third	-0.09 [-0.43, 0.26]	-0.06 [-0.32, 0.19]
	Control	-0.32 [-0.63, -0.02]	-0.26 [-0.50, -0.02]*
Emotional Release (ER)	Shift-to-Third	0.41 [0.11, 0.71]	0.35 [0.09, 0.60]*
	Control	0.54 [0.27, 0.81]	0.49 [0.24, 0.74]*
Experiential Change (EC)	Shift-to-Third	0.04 [-0.32, 0.40]	0.03 [-0.22, 0.28]
	Control	-0.13 [-0.47, 0.21]	-0.09 [-0.33, 0.15]
Mental Liberation (ML)	Shift-to-Third	0.70 [0.32, 1.08]	0.47 [0.21, 0.72]*
	Control	0.81 [0.46, 1.16]	0.57 [0.32, 0.82]*
Behavioural Deactivation (BD)	Shift-to-Third	0.73 [0.35, 1.11]	0.49 [0.23, 0.74]*
	Control	0.71 [0.35, 1.07]	0.48 [0.24, 0.73]*

Notes. Reference group is the shift-to-first condition. Calculations are based on adjusted means, controlling for baseline affect, gender, and narrative perspective difficulty. * indicates statistically meaningful (CIs do not include zero).

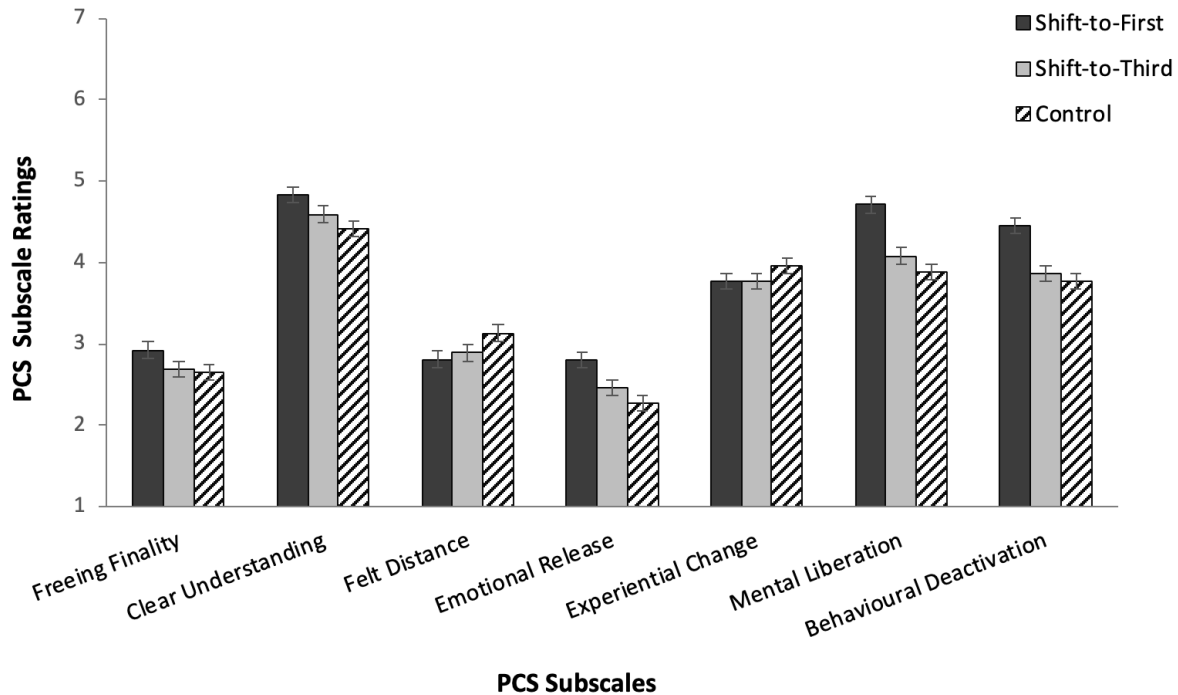


Figure 5. Psychological Closure Scale (PCS) subscale mean ratings by narrative perspective shift condition. The scale ranges from 1 (low closure) to 7 (high closure). Error bars indicate 95% confidence.

The effects of narrative perspective shift sequences on each of the PCS subscales were then examined within each mental focus condition, using shift-to-first as the reference group (refer to Table 15). Within the experience focus condition, the shift-to-first group indicated statistically meaningfully higher average ratings than the shift-to-third group on the FF, ER, ML, and BD subscales, and the control group on the FF, CU, ER, ML, and BD subscales. Within the coherence focus condition, the shift-to-first group reported higher average ratings than the shift-to-third group on the ML and BD subscales, higher average ratings than the control group on the CU, ER, ML, and BD subscales, and lower average ratings than the control group on the FD subscale. All other group contrasts were null.

Table 15

Mean Differences, Effect Sizes, and Confidence Intervals for the Psychological Closure Scale and Subscales Amongst Narrative Perspective Shift Sequences Within Each Mental Focus Condition

	Contrast: Shift-to-First vs.	Experience Focus		Coherence Focus	
		M_{diff} [95% CI]	d_{unb} [95% CI]	M_{diff} [95% CI]	d_{unb} [95% CI]
PCS-Full	Shift-to-Third	0.44 [0.10, 0.78]	0.46 [0.10, 0.82]*	0.28 [-0.07, 0.63]	0.29 [-0.07, 0.64]
	Control	0.35 [0.09, 0.61]	0.40 [0.09, 0.69]*	0.34 [0.08, 0.60]	0.39 [0.09, 0.69]*
PCS-FF	Shift-to-Third	0.49 [0.07, 0.92]	0.42 [0.05, 0.78]*	0.02 [-0.43, 0.47]	0.02 [-0.34, 0.37]
	Control	0.39 [0.05, 0.73]	0.34 [0.04, 0.64]*	0.21 [-0.13, 0.56]	0.19 [-0.11, 0.49]
PCS-CU	Shift-to-Third	0.28 [-0.23, 0.78]	0.20 [-0.16, 0.55]	0.40 [-0.09, 0.90]	0.29 [-0.07, 0.65]
	Control	0.49 [0.06, 0.92]	0.34 [0.05, 0.64]*	0.50 [0.07, 0.93]	0.35 [0.05, 0.65]*
PCS-FD	Shift-to-Third	0.17 [-0.35, 0.69]	0.12 [-0.24, 0.48]	-0.22 [-0.69, 0.24]	-0.17 [-0.53, 0.18]
	Control	-0.18 [-0.61, 0.26]	-0.12 [-0.42, 0.18]	-0.55 [-0.96, 0.13]	-0.40 [-0.70, -0.10]*
PCS-ER	Shift-to-Third	0.43 [0.02, 0.84]	0.38 [0.02, 0.74]*	0.43 [-0.01, 0.87]	0.35 [-0.01, 0.70]
	Control	0.39 [0.08, 0.71]	0.37 [0.07, 0.67]*	0.62 [0.30, 0.94]	0.59 [0.28, 0.89]*
PCS-EC	Shift-to-Third	0.04 [-0.49, 0.58]	0.03 [-0.33, 0.39]	-0.03 [-0.52, 0.47]	-0.02 [-0.38, 0.33]
	Control	-0.02 [-0.44, 0.41]	-0.01 [-0.31, 0.29]	-0.12 [-0.53, 0.30]	-0.08 [-0.39, 0.22]
PCS-ML	Shift-to-Third	0.81 [0.29, 1.33]	0.56 [0.19, 0.92]*	0.59 [0.06, 1.13]	0.40 [0.04, 0.75]*
	Control	0.64 [0.22, 1.06]	0.45 [0.15, 0.75]*	0.75 [0.33, 1.18]	0.54 [0.23, 0.84]*
PCS-BD	Shift-to-Third	0.69 [0.17, 1.21]	0.48 [0.12, 0.84]*	0.59 [0.03, 1.14]	0.38 [0.02, 0.73]*
	Control	0.66 [0.24, 1.08]	0.47 [0.17, 0.77]*	0.52 [0.09, 0.95]	0.36 [0.06, 0.67]*

Notes. PCS = Psychological Closure Scale; FF = Freeing Finality; CU = Clear Understanding; FD = Felt Distance; ER = Emotional Release; EC = Experiential Change; ML = Mental Liberation; BD = Behavioural Deactivation. Reference group is the shift-to-first condition. Calculations are based on adjusted means, controlling for baseline affect, gender, and narrative perspective difficulty. * indicates statistically meaningful (CIs do not include zero).

Mediation Analyses Involving Subjective Distance and Self-Change

Descriptive statistics for subjective temporal distance and self-change by experimental condition are presented in Table 16.

Table 16

Mean Ratings of Subjective Temporal Distance and Self-Change by Experimental Condition

	Control (<i>n</i> = 125)		Shift-to-First				Shift-to-Third			
			Experience (<i>n</i> = 57)		Coherence (<i>n</i> = 58)		Experience (<i>n</i> = 54)		Coherence (<i>n</i> = 57)	
	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>
Sub. Temp. Distance	3.33 [3.04, 3.63]	1.92	2.59 [2.17, 3.01]	1.69	2.46 [2.03, 2.90]	1.47	3.07 [2.63, 3.52]	1.70	2.60 [2.17, 3.03]	1.61
Self- Change ^c	6.66 [6.21, 7.10]	2.56	6.36 [5.73, 6.99]	2.46	6.14 [5.49, 6.80]	2.45	6.68 [6.02, 7.35]	2.58	6.24 [5.60, 6.89]	2.76

Notes. ^c = composite using two items pertaining to self-change. Sub. Temp. = subjective temporal.

Subjective temporal distance. Based on prior literature (Gu & Tse, 2016), subjective temporal distance was explored as a possible mediating variable. Due to the fact mental focus was not significantly related to PCS composite ratings, these analyses centered on narrative perspective shifting effects. To test whether subjective distance mediated the relationship between narrative perspective shifting and closure, the PROCESS macro for SPSS (Hayes, 2013; Hayes & Preacher, 2014) was used. The PROCESS macro uses ordinary least squares and logistic regression path analysis to estimate direct and indirect effects. Inferences were based on 95% bias-corrected CIs, bootstrapped using 5000 samples.

In a mediator model, the total effect represents the effect of narrative perspective shifting on PCS without the mediator (path *c*). The relative direct effect represents the effect of narrative perspective shifting on PCS after including the mediator (path *c'*). The total relative indirect effect represents the effect of the mediator on the effectiveness of narrative perspective shifting to PCS, which can be calculated as the total effect minus the direct effect.

Narrative perspective shift sequence was entered as a multicategorical predictor variable (X; coded per the indicator coding system, with the shift-to-first condition set as the reference group to remain consistent with previously reported group contrasts). Psychological closure (PCS composite) was entered as the outcome variable (Y), and subjective temporal distance was entered as the mediator (M), accounting for the same covariates as in the above analyses. Refer to Table 17 for all regression coefficients, *t* scores, and *p* values.

Table 17

Statistics for the Model Testing the Mediating Role of Subjective Temporal Distance on the Relationship Between Narrative Perspective Shifting and Psychological Closure

Contrast	Shift-to-First vs. Shift-to-Third	Shift-to-First vs. Control	Shift-to-Third vs. Control	Subjective Distance on Closure
Path a				
<i>b</i> [95% CI]	0.31 [-0.14, 0.75]	0.81 [0.37, 1.25]	0.50 [0.08, 0.93]	
<i>t</i> (371)	1.37	3.64	2.32	
<i>p</i>	.173	< .001	.021	
Path b				
<i>b</i> [95% CI]				0.19 [0.14, 0.24]
<i>t</i> (370)				7.42
<i>p</i>				< .001
Path c				
<i>b</i> [95% CI]	-0.27 [-0.50, -0.04]	-0.32 [-0.54, -0.09]	-0.04 [-0.26, 0.18]	
<i>t</i> (371)	-2.35	-2.73	-0.37	
<i>p</i>	.019	.007	.715	
Path c'				
<i>b</i> [95% CI]	-0.33 [-0.55, -0.12]	-0.47 [-0.68, -0.25]	-0.14 [-0.34, 0.07]	
<i>t</i> (370)	-3.04	-4.25	-1.28	
<i>p</i>	.003	< .001	.202	
Indirect, a*b				
<i>b</i> [95% CI]	0.06 [-0.02, 0.15]	0.16 [0.07, 0.28]	0.10 [0.01, 0.21]	
<i>SE</i>	0.04	0.05	0.05	

Notes. Path a represents the effect of narrative perspective shifting on subjective temporal distance. Path b represents the effect of subjective temporal distance on closure, using the Psychological Closure Scale (PCS) composite score. Path c represents the total effect of narrative perspective shifting on closure without subjective temporal distance included in the model. Path c' represents the relative direct effect of narrative perspective shifting on closure, with subjective temporal distance included as a mediator in the model. Bolded text indicates statistical significance at $\alpha < .05$ and CIs that do not include zero.

Results indicated that ratings of subjective temporal distance statistically significantly predicted ratings of psychological closure (path b). For the shift-to-first versus shift-to-third condition contrast, significant total effects (path c) and relative direct effects (path c') were found, with the shift-to-first condition reporting *higher* ratings of closure relative to the shift-to-third condition. The shift-to-first versus control condition contrast revealed that narrative perspective shifting significantly predicted ratings of subjective temporal distance (path a), along with significant total effects (path c), relative direct effects (path c'), and relative indirect effects (path a*b). Compared to the control condition, the shift-to-first condition reported *less* subjective temporal distance and *greater* closure. The shift-to-third vs. control condition contrast yielded a significant effect of narrative perspective shifting on subjective temporal distance (path a) and a significant relative indirect effect (path a*b), with the shift-to-third condition reporting *less* subjective distance and *greater* closure, than the control condition. Refer to Figure 6 for an illustration of this mediation model and findings.

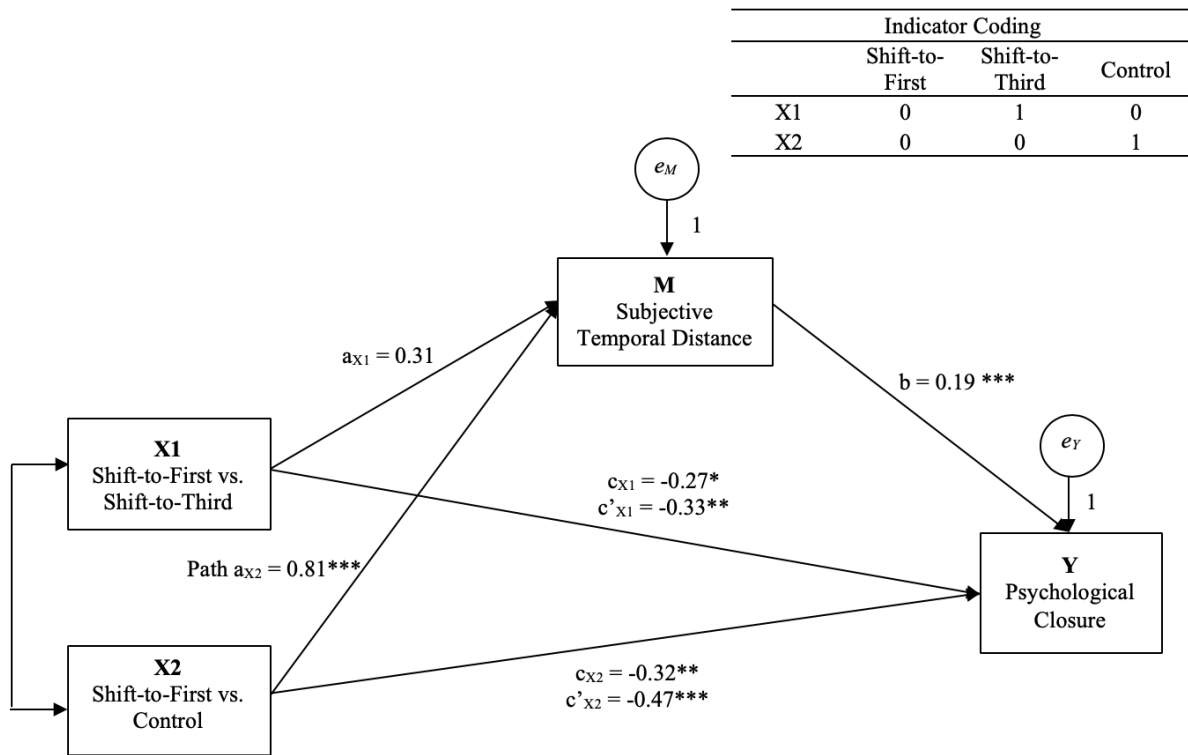


Figure 6. Mediation model with narrative perspective shift condition (shift-to-first, shift-to-third, control) as the categorical predictor (X), psychological closure as the outcome (Y), and subjective temporal distance as the mediator (M). X1 denotes the contrast amongst shift-to-first and shift-to-third conditions; X2 denotes the contrast amongst shift-to-first and control conditions. *Path a* represents the effect of shift condition (X1, X2) on subjective temporal distance, *path b* represents the relationship amongst subjective temporal distance and psychological closure, and *paths c* and *c'* represent the total and relative direct effects of shift condition (X1, X2) on psychological closure (Y), respectively. *e* = error. * = statistical significance at $\alpha < .05$; ** = statistical significance at $\alpha < .01$; and *** = statistical significance at $\alpha < .001$.

According to Hayes and Preacher (2014), evidence that at least one relative indirect effect is different from zero supports the conclusion that M (subjective temporal distance) mediates the effect of X (narrative perspective shifting) on Y (psychological closure). However, in terms of the contrast amongst shift-to-first and control conditions, findings revealed a *positive difference* in subjective temporal distance (positive path a) and a *negative difference* in closure (negative paths c and c'). Further, *greater* subjective temporal distance corresponded to *greater* closure (positive path b). Finally, the total effect of shift condition on closure (path c) was greater than the direct effect (path c'). This pattern of effects, wherein the relative direct and indirect effects have opposite signs, is suggestive of inconsistent mediation (Davis, 1985). That is, the magnitude of the relationship between narrative perspective shifting and closure became larger when subjective temporal distance was included in the model, thus, the mediating role of subjective temporal distance was not supported.

Self-Change. The same analyses were conducted with self-change entered as the mediator (per Libby & Eibach, 2011b). Two items pertaining to self-change were averaged, $r(375) = 0.71$ [0.62, 0.80], $p < .001$, to create a self-change composite. Refer to Table 18 for all regression coefficients, *t* scores, and *p* values.

Table 18

Statistics for the Mediation Model Testing the Mediating Role of Self-Change on the Relationship Between Narrative Perspective Shifting and Closure

Contrast	Shift-to-First vs. Shift-to-Third	Shift-to-First vs. Control	Shift-to-Third vs. Control	Subjective Distance on Closure
Path a				
<i>b</i> [95% CI]	0.21 [-0.46, 0.87]	0.40 [-0.26, 1.06]	0.20 [-0.44, 0.84]	
<i>t</i> (371)	0.61	1.20	0.61	
<i>p</i>	.543	.230	.545	
Path b				
<i>b</i> [95% CI]				0.05 [0.02, 0.09]
<i>t</i> (370)				2.85
<i>p</i>				.005
Path c				
<i>b</i> [95% CI]	-0.27[-0.50, -0.04]	-0.32 [-0.54, -0.09]	-0.04 [-0.26, 0.18]	
<i>t</i> (371)	-2.35	-2.73	-0.37	
<i>p</i>	=.019	.007	.715	
Path c'				
<i>b</i> [95% CI]	-0.29 [-0.51, -0.06]	-0.34 [-0.56, -0.11]	-0.05 [-0.27, 0.17]	
<i>t</i> (370)	-2.46	-2.93	-0.46	
<i>p</i>	.014	.004	.647	
Indirect, a*b				
<i>b</i> [95% CI]	0.01 [-0.03, 0.06]	0.02 [-0.01, 0.07]	0.01 [-0.02, 0.05]	
<i>SE</i>	0.02	0.02	0.02	

Notes. Path a represents the effect of narrative perspective shifting on self-change. Path b represents the effect of self-change on closure, using the Psychological Closure Scale (PCS) composite score. Paths c represents the total effect of narrative perspective shifting on closure without self-change included in the model. Path c' represents the relative direct effect of narrative perspective shifting on closure, with self-change included as a mediator in the model. Bolded text indicates statistical significance at $\alpha < .05$ and CIs that do not include zero.

Findings revealed that ratings of self-change statistically significantly predicted ratings of closure, with greater self-change corresponding to greater closure. For all group contrasts, narrative perspective shifting did not predict ratings of self-change. Finally, all relative indirect effects approximated zero, hence, ratings of self-change did not mediate the relationship amongst narrative perspective shifting and closure (refer to Figure 7).

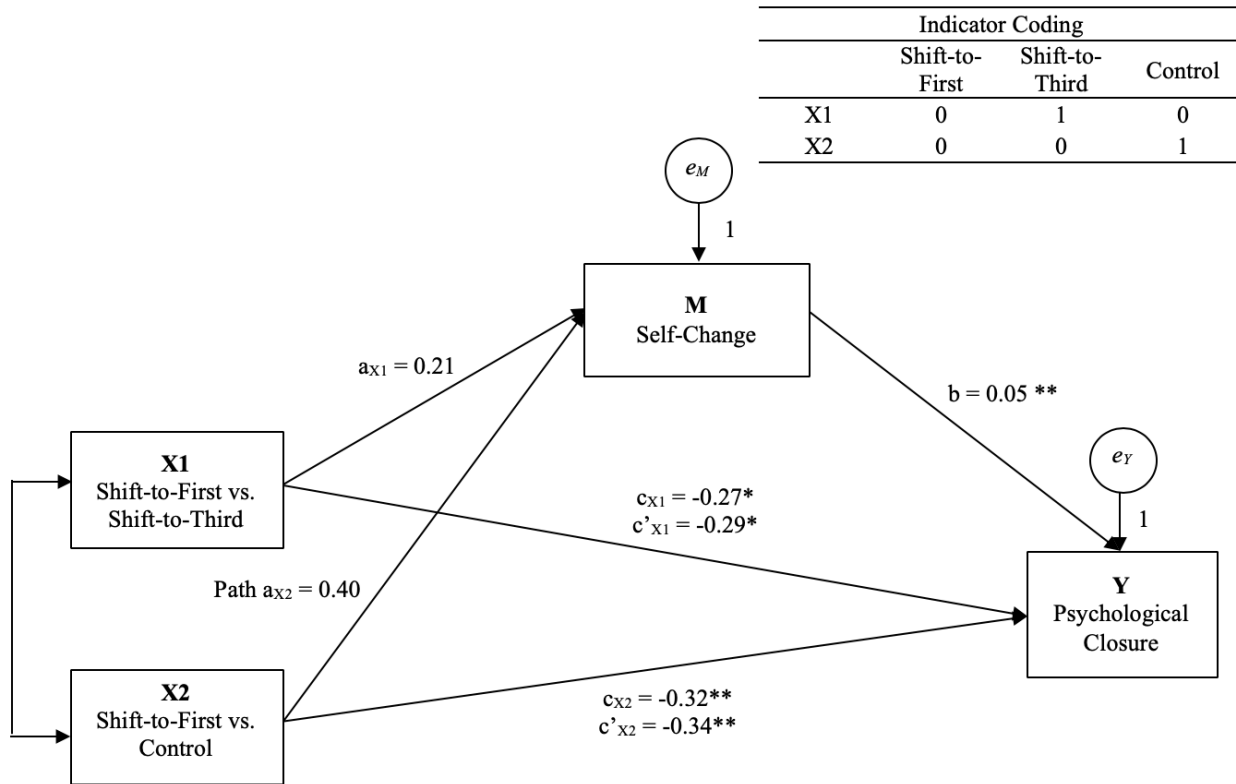


Figure 7. Mediation model with narrative perspective shift condition (shift-to-first, shift-to-third, control) as the categorical predictor (X), psychological closure as the outcome (Y), and self-change as the mediator (M). X1 denotes the contrast amongst shift-to-first and shift-to-third conditions, and X2 denotes the contrast amongst shift-to-first and control conditions. Path a represents the effect of shift condition (X1, X2) on self-change, Path b represents the relationship amongst self-change and psychological closure, and Paths c and c' represent the total and relative direct effects of shift condition (X1, X2) on psychological closure, respectively. e = error. * = statistical significance at $\alpha < .05$; ** = statistical significance at $\alpha < .01$; and *** = statistical significance at $\alpha < .001$.

Closure Ratings Over Time

PCS ratings for Parts 1 and 2 (time delay, $M = 1.30$ days, [1.26, 1.33], $SD = 0.38$) were compared using repeated measures contrasts (see Table 19). Results indicated a main effect of time, $M_{diff} = 0.30$ [0.24, 0.36], $d_{unb} = 0.30$ [0.23, 0.37], however, the magnitude of the effect for the shift-to-first condition was slightly larger than that for the shift-to-third condition, as was the effect for the experience focus condition relative to the coherence focus condition (all effects were in the

small-to-medium range). Mean closure ratings statistically meaningfully increased for those in each experimental writing condition, whereas the control condition indicated no change over time.

Table 19

Psychological Closure Scale Ratings from Time 1 to Time 2 by Narrative Perspective Shift and Mental Focus

Condition	Time 1		Time 2		Difference from Time 1 to Time 2	
	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M_{diff}</i> [95% CI]	<i>d</i> [95% CI]
Shift-to-First (<i>n</i> = 115)	3.65 [3.48, 3.82]	0.95	4.05 [3.85, 4.23]	1.08	0.40 [0.20, 0.60]	0.40 [0.22, 0.57]*
Shift-to-Third (<i>n</i> = 111)	3.28 [3.10, 3.47]	0.98	3.62 [3.42, 3.82]	1.02	0.34 [0.15, 0.53]	0.34 [0.14, 0.53]*
Experience (<i>n</i> = 111)	3.43 [3.26, 3.60]	0.97	3.86 [3.67, 4.04]	1.08	0.42 [0.22, 0.62]	0.41 [0.21, 0.61]*
Coherence (<i>n</i> = 115)	3.51 [3.34, 3.67]	0.96	3.81 [3.62, 3.99]	1.04	0.30 [0.11, 0.49]	0.30 [0.11, 0.50]*
Control (<i>n</i> = 125)	3.31 [3.15, 3.48]	0.85	3.49 [3.31, 3.68]	1.02	0.19 [0.00, 0.37]	0.20 [0.00, 0.39]

Notes. Adjusted means, sphericity assumed. Psychological Closure Scale (PCS) ranges from 1 to 7, with higher scores indicating greater closure. Time between sessions was 1-2 days. * denotes statistically meaningful (CIs do not include zero).

Closure at Time 2. As with Time 1, at Time 2, the shift-to-first condition reported statistically meaningfully higher average ratings of closure, relative to the shift-to-third condition, $M_{diff} = 0.43$ [0.15, 0.71], $d_{unb} = 0.41$ [0.14, 0.67], and the control condition, $M_{diff} = 0.56$ [0.29, 0.83], $d_{unb} = 0.53$ [0.27, 0.79]. Mental focus did not affect ratings of closure, $M_{diff} = 0.05$ [-0.23, 0.33], $d_{unb} = 0.05$ [-0.21, 0.31], however, each the experience focus condition and the coherence focus condition reported greater closure, on average, relative to the control condition: $M_{diff} = 0.37$ [0.10, 0.64], $d_{unb} = 0.35$ [0.09, 0.61], and $M_{diff} = 0.32$ [0.06, 0.58], $d_{unb} = 0.31$ [0.05, 0.56], respectively.

The shift-to-first-experience group provided statistically meaningfully higher closure ratings, on average, than the shift-to-third-experience group, $M_{diff} = 0.42$ [0.05, 0.80], $d_{unb} = 0.43$ [0.06, 0.80], the shift-to-third-coherence group, $M_{diff} = 0.39$ [0.03, 0.76], $d_{unb} = 0.39$ [0.02, 0.76],

and the control group, $M_{diff} = 0.57 [0.23, 0.91]$, $d_{unb} = 0.56 [0.24, 0.87]$. The shift-to-first-coherence group also provided higher average closure ratings than the control group, $M_{diff} = 0.41 [0.06, 0.75]$, $d_{unb} = 0.36 [0.04, 0.67]$. All other group contrasts approximated zero (see Figure 8).

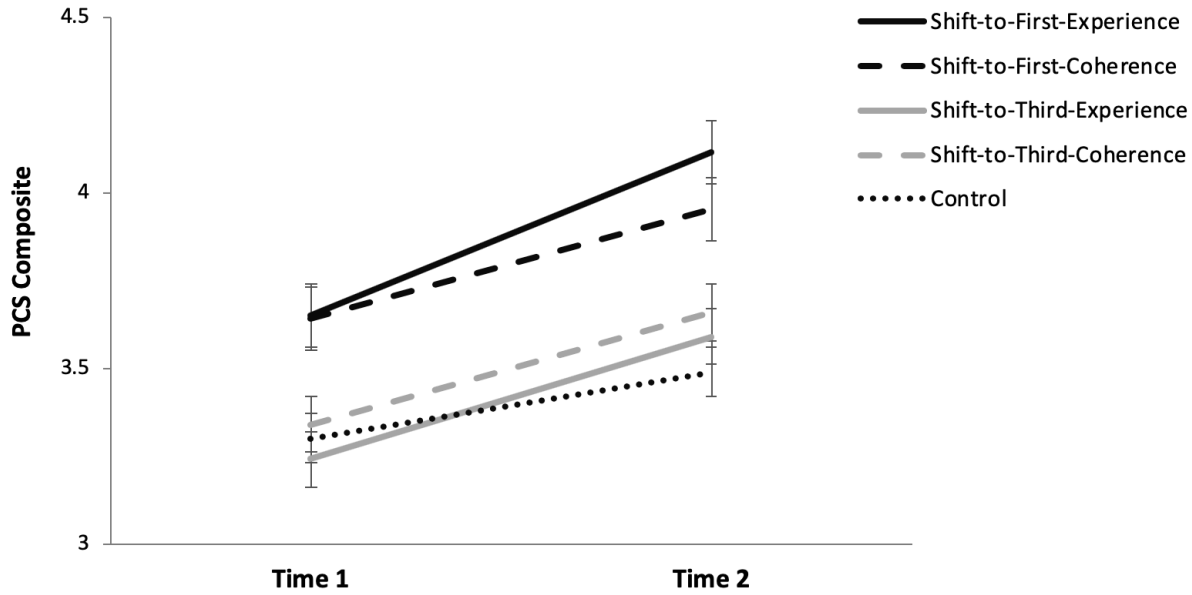


Figure 8. Psychological Closure Scale (PCS) adjusted mean ratings by experimental group. The scale ranges from 1 (low closure) to 7 (high closure), hence the vertical axis represents the low-to-mid segment of the full scale range. Error bars indicate 95% confidence.

Analysis of PCS subscales at Time 2 (see Table 20) replicated those found at Time 1, with the addition of narrative perspective shifting effects on the CU subscale. In all, the shift-to-first condition reported statistically meaningfully higher ratings of closure on the FF, CU, ER, ML, and BD subscales, on average, relative to the shift-to-third and control conditions. There were no meaningful differences between shift-to-first and shift-to-third conditions on the EC and FD subscales. The shift-to-third and control conditions indicated similar ratings across subscales of the PCS (CIs included zero).

Table 20

Time 2 Mean Differences, Effect Sizes, and Confidence Intervals for Psychological Closure Scale and Subscale Ratings Amongst Narrative Perspective Shift and Control Conditions

PCS Composite and Subscales	Contrast: Shift-to-First vs.	M_{diff} [95% CI]	d_{unb} [95% CI]
PCS Composite	Shift-to-Third	0.43 [0.15, 0.71]	0.41 [0.14, 0.67]*
	Control	0.56 [0.29, 0.83]	0.53 [0.27, 0.79]*
Freeing Finality (FF)	Shift-to-Third	0.39 [0.04, 0.74]	0.29 [0.03, 0.55]*
	Control	0.49 [0.15, 0.83]	0.37 [0.11, 0.62]*
Clear Understanding (CU)	Shift-to-Third	0.60 [0.24, 0.96]	0.44 [0.17, 0.70]*
	Control	0.46 [0.09, 0.82]	0.32 [0.06, 0.57]*
Felt Distance (FD)	Shift-to-Third	0.20 [-0.19, 0.59]	0.13 [-0.13, 0.40]
	Control	0.26 [-0.13, 0.65]	0.17 [-0.09, 0.42]
Emotional Release (ER)	Shift-to-Third	0.66 [0.29, 1.03]	0.46 [0.20, 0.72]*
	Control	0.84 [0.48, 1.20]	0.59 [0.33, 0.85]*
Experiential Change (EC)	Shift-to-Third	-0.06 [-0.42, 0.30]	-0.04 [-0.30, 0.22]
	Control	0.06 [-0.30, 0.42]	0.04 [-0.21, 0.30]
Mental Liberation (ML)	Shift-to-Third	0.64 [0.25, 1.03]	0.43 [0.16, 0.69]*
	Control	0.90 [0.51, 1.29]	0.59 [0.33, 0.84]*
Behavioural Deactivation (BD)	Shift-to-Third	0.53 [0.14, 0.92]	0.36 [0.09, 0.62]*
	Control	0.75 [0.37, 1.13]	0.50 [0.24, 0.75]*

Notes. Reference group is the shift-to-first condition. Calculations are based on adjusted means, controlling for baseline affect, gender, and narrative perspective difficulty. * indicates statistically meaningful (CIs do not include zero).

Effects of Narrative Perspective Shifting and Mental Focus on Emotion

The effects of narrative perspective shift sequence and mental focus on measures of emotion (PANAS, emotional valence, emotional intensity, physical reaction) were analysed using adjusted means, controlling for baseline affect, gender, and narrative perspective difficulty (refer to Table 21 for descriptive statistics by group).

Table 21

Descriptive Statistics for Emotion Items by Experimental Condition

	Control (<i>n</i> = 134)		Shift-to-First				Shift-to-Third			
			Experience (<i>n</i> = 64)		Coherence (<i>n</i> = 62)		Experience (<i>n</i> = 57)		Coherence (<i>n</i> = 60)	
	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>
PANAS-NA	2.28 [2.14, 2.42]	0.85	2.06 [1.87, 2.26]	0.77	2.02 [1.82, 2.22]	0.74	2.35 [2.14, 2.56]	0.75	2.22 [2.02, 2.42]	0.87
PANAS-PA	2.39 [2.24, 2.53]	0.81	2.16 [1.95, 2.37]	0.83	2.17 [1.96, 2.38]	0.90	2.16 [1.96, 2.37]	0.72	2.21 [2.01, 2.42]	0.84
Current Valence ^a	3.12 [2.89, 3.32]	1.42	3.49 [3.18, 3.79]	1.40	3.69 [3.38, 4.00]	1.36	3.18 [2.87, 3.48]	1.23	3.15 [2.85, 3.46]	1.31
Current Intensity	4.36 [4.07, 4.65]	1.48	3.93 [3.50, 4.36]	1.56	3.84 [3.41, 4.27]	1.55	4.21 [3.79, 4.63]	1.65	3.96 [3.55, 4.38]	1.82
Physical Reaction	4.11 [3.72, 4.51]	2.22	3.05 [2.47, 3.63]	2.05	3.24 [2.66, 3.82]	2.10	4.08 [3.51, 4.66]	2.22	4.06 [3.50, 4.62]	2.18

Notes. Adjusted means. PANAS = Positive and Negative Affect Schedule; NA = Negative Affect; PA = Positive Affect. ^a denotes that higher scores indicate less negative (more positive) emotion at recall.

PANAS. Results indicated that the shift-to-first condition indicated statistically meaningfully lower ratings of negative affect, on average, relative to the shift-to-third condition, $M_{diff} = -0.24$ [-0.44, -0.05], $d_{unb} = -0.31$ [-0.57, -0.06], and the control condition, $M_{diff} = -0.34$ [-0.55, -0.13], $d_{unb} = -0.41$ [-0.66, -0.15]. The coherence focus condition also indicated lower average ratings of negative affect as compared to the control condition, $M_{diff} = -0.22$ [-0.43, -0.02], $d_{unb} = -0.27$ [-0.52, -0.02], but not the experience focus condition, $M_{diff} = -0.07$ [-0.27, 0.13], $d_{unb} = -0.09$ [-0.35, 0.17]. Each the shift-to-first-experience group and the shift-to-first-coherence group reported statistically meaningfully lower ratings of negative affect relative to the control group, $M_{diff} = -0.30$ [-0.56, -0.05], $d_{unb} = -0.37$ [-0.69, -0.06], and $M_{diff} = -0.33$ [-0.59, -0.08], $d_{unb} = -0.41$ [-0.72, -0.10], respectively. All other between-group contrasts regarding negative affect were null (see Figure 9).

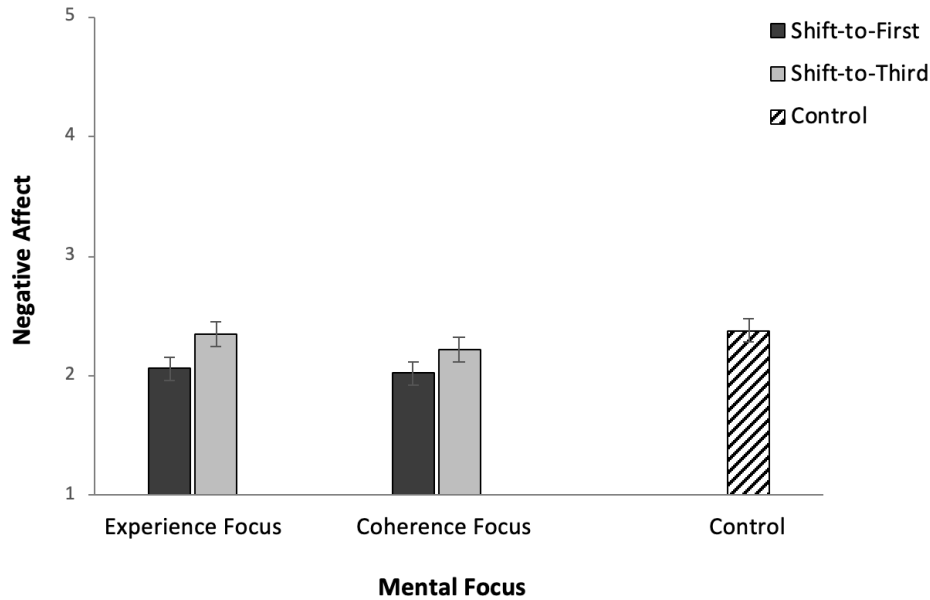


Figure 9. Positive and Negative Affect Schedule (PANAS) Negative Affect (NA) adjusted mean ratings by experimental group. The scale ranges from 1 (low negative affect) to 5 (high negative affect). Error bars indicate 95% confidence.

For positive affect, findings revealed no statistically meaningful effects of narrative perspective shift and/or mental focus; mean ratings on positive affect were similar across groups (CIs included zero).

Valence item. For emotional valence ratings using the semantic differential item, anchored 1 (*extremely negative*) to 7 (*extremely positive*), those in the shift-to-first condition rated their emotions at recall as statistically meaningfully less negative, on average, relative to those in the shift-to-third, $M_{diff} = 0.43$ [0.08, 0.78], $d_{unb} = 0.33$ [0.06, 0.59] and control, $M_{diff} = 0.49$ [0.14, 0.84], $d_{unb} = 0.35$ [0.10, 0.61], conditions. The shift-to-first-coherence group reported lower negative emotion, on average, relative to the shift-to-third-experience group, $M_{diff} = 0.53$ [0.05, 1.01], $d_{unb} = 0.41$ [0.03, 0.78], and the control group, $M_{diff} = 0.53$ [0.10, 0.96], $d_{unb} = 0.38$ [0.07, 0.70]. All other mental focus and between-group differences on emotional valence approximated zero.

Intensity. Regarding emotional intensity at recall, the shift-to-first condition indicated statistically meaningfully lower average ratings than the control condition, $M_{diff} = -0.48$ [-0.86, -0.10], $d_{unb} = -0.32$ [-0.58, -0.07], but not the shift-to-third condition, $M_{diff} = -0.37$ [-0.81, 0.07], $d_{unb} = -0.22$ [-0.49, 0.04]. The coherence focus condition indicated lower emotional intensity ratings, on average, relative to the control condition, $M_{diff} = -0.39$ [-0.78, -0.02], $d_{unb} = -0.29$ [-0.54, -0.04], but not the experience focus condition, $M_{diff} = -0.21$ [-0.16, 0.57], $d_{unb} = -0.10$ [-0.36, 0.16]. All other between-group contrasts concerning intensity were not statistically meaningful (CIs included zero).

Physical reaction. Regarding bodily reaction at recall, the shift-to-first condition indicated statistically meaningfully lower ratings, on average, relative to the shift-to-third, $M_{diff} = -0.93$ [-1.49, -0.37], $d_{unb} = -0.44$ [-0.70, -0.17], and control, $M_{diff} = -0.98$ [-1.52, -0.44], $d_{unb} = -0.46$ [-0.72, -0.21], conditions. The shift-to-first-experience group reported lower mean reaction ratings than the shift-to-third-experience group, $M_{diff} = -1.03$ [-1.84, -0.23], $d_{unb} = -0.48$ [-0.86, -0.10], the shift-to-third-coherence group, $M_{diff} = -1.01$ [-1.80, -0.22], $d_{unb} = -0.48$ [-0.85, -0.10], and the control group, $M_{diff} = -1.06$ [-1.75, -0.38], $d_{unb} = -0.49$ [-0.81, -0.17]. The shift-to-first-coherence group also indicated lower average reaction ratings than the shift-to-third-experience group, $M_{diff} = -0.84$ [-1.65, -0.04], $d_{unb} = -0.39$ [-0.76, -0.02], the shift-to-third-coherence group, $M_{diff} = -0.82$ [-1.61, -0.03], $d_{unb} = -0.38$ [-0.75, -0.01], and the control group, $M_{diff} = -0.87$ [-1.55, -0.19], $d_{unb} = -0.40$ [-0.71, -0.09]. All other between-group contrasts approximated zero (refer to Figure 10).

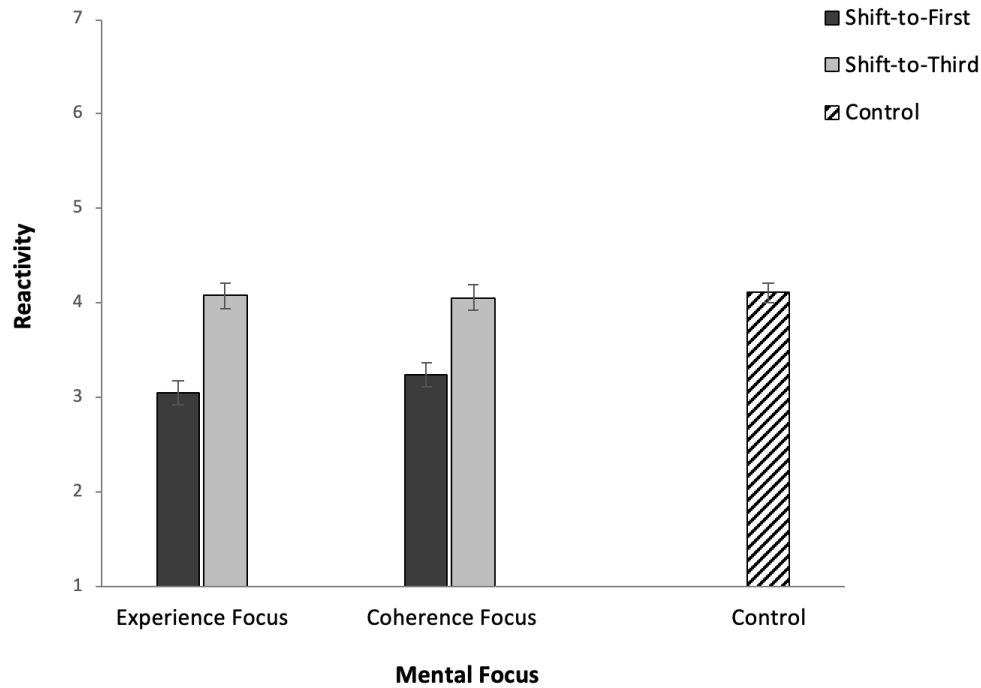


Figure 10. Physical emotional reactivity adjusted mean ratings by experimental group. The scale ranges from 1 (low reactivity) to 7 (high reactivity). Error bars indicate 95% confidence.

Emotion Ratings Over Time

Changes in aspects of emotion from Time 1 to Time 2 were analyzed using repeated measures contrasts. Results indicated a main effect of time for negative affect, $M_{diff} = -0.34$ [-0.46, -0.22], $d_{unb} = -0.41$ [-0.56, -0.26], emotional valence, $M_{diff} = 0.28$ [0.08, 0.48], $d_{unb} = 0.21$ [0.06, 0.36], intensity, $M_{diff} = -0.47$ [-0.71, -0.23], $d_{unb} = -0.29$ [-0.44, -0.14], and reaction, $M_{diff} = -0.42$ [-0.73, -0.11], $d_{unb} = -0.20$ [-0.35, -0.05], however, many of these effects were qualified by condition (see Table 22). Negative affect ratings decreased for all writing conditions, but not the control condition; valence ratings increased (became more positive, less negative) for the shift-to-first condition; intensity ratings decreased for the shift-to-first, experience focus, and coherence focus conditions; and reaction ratings decreased for the shift-to-third and coherence focus conditions. Positive affect did not vary over time, $M_{diff} = -0.03$ [-0.16, 0.10], $d_{unb} = -0.04$ [-0.18, 0.11].

Table 22

Emotion Ratings from Time 1 to Time 2 by Narrative Perspective Shift and Mental Focus

<i>Measure/Condition</i>	<i>Time 1</i>		<i>Time 2</i>		<i>Difference from Time 1 to Time 2</i>	
	<i>M [95% CI]</i>	<i>SD</i>	<i>M [95% CI]</i>	<i>SD</i>	<i>M_{diff} [95% CI]</i>	<i>d [95% CI]</i>
<i>PANAS-NA</i>						
Shift-to-First (<i>n</i> = 115)	2.03 [1.87, 2.18]	0.74	1.66 [1.51, 1.83]	0.75	-0.36 [-0.49, -0.22]	-0.48 [-0.68, -0.29]*
Shift-to-Third (<i>n</i> = 111)	2.23 [2.08, 2.38]	0.80	1.90 [1.75, 2.05]	0.79	-0.33 [-0.48, -0.18]	-0.42 [-0.61, -0.22]*
Exp Focus (<i>n</i> = 111)	2.16 [2.01, 2.30]	0.76	1.82 [1.67, 1.97]	0.75	-0.34 [-0.48, -0.20]	-0.45 [-0.65, -0.25]*
Coh Focus (<i>n</i> = 115)	2.10 [1.95, 2.25]	0.79	1.74 [1.59, 1.89]	0.80	-0.36 [-0.51, -0.21]	-0.45 [-0.65, -0.26]*
Control (<i>n</i> = 125)	2.32 [2.17, 2.46]	0.85	2.04 [1.88, 2.18]	0.89	-0.29 [-0.56, 0.00]	-0.32 [-0.65, 0.00]
<i>PANAS-PA</i>						
Shift-to-First (<i>n</i> = 115)	2.16 [2.01, 2.31]	0.86	2.17 [2.00, 2.33]	0.94	0.01 [-0.16, 0.18]	0.01 [-0.18, 0.20]
Shift-to-Third (<i>n</i> = 111)	2.19 [2.05, 2.34]	0.78	2.19 [2.04, 2.35]	0.88	0.00 [-0.17, 0.17]	0.00 [-0.20, 0.20]
Exp Focus (<i>n</i> = 111)	2.16 [2.02, 2.31]	0.77	2.22 [2.06, 2.37]	0.88	0.06 [-0.11, 0.23]	0.07 [-0.13, 0.27]
Coh Focus (<i>n</i> = 115)	2.19 [2.05, 2.34]	0.87	2.14 [1.98, 2.30]	0.94	-0.05 [-0.22, 0.12]	-0.06 [-0.25, 0.14]
Control (<i>n</i> = 125)	2.38 [2.24, 2.53]	0.82	2.23 [2.08, 2.39]	0.83	-0.15 [-0.30, 0.03]	-0.18 [-0.40, 0.03]
<i>Current Valence^a</i>						
Shift-to-First (<i>n</i> = 115)	3.39 [3.13, 3.66]	1.37	3.78 [3.53, 4.02]	1.37	0.39 [0.14, 0.64]	0.29 [0.10, 0.47]*
Shift-to-Third (<i>n</i> = 111)	3.05 [2.80, 3.30]	1.27	3.28 [3.05, 3.51]	1.14	0.23 [-0.15, 0.61]	0.19 [-0.12, 0.50]
Exp Focus (<i>n</i> = 111)	3.14 [2.89, 3.39]	1.31	3.52 [3.29, 3.76]	1.25	0.38 [0.00, 0.76]	0.30 [0.00, 0.59]
Coh Focus (<i>n</i> = 115)	3.31 [3.05, 3.56]	1.34	3.53 [3.30, 3.77]	1.32	0.22 [-0.15, 0.59]	0.17 [-0.11, 0.44]
Control (<i>n</i> = 125)	3.01 [2.76, 3.26]	1.42	3.20 [2.97, 3.43]	1.25	0.19 [-0.06, 0.44]	0.14 [-0.05, 0.33]
<i>Current Intensity</i>						
Shift-to-First (<i>n</i> = 115)	3.93 [3.61, 4.24]	1.54	3.27 [2.97, 3.59]	1.57	-0.66 [-0.95, -0.37]	-0.42 [-0.62, -0.23]*
Shift-to-Third (<i>n</i> = 111)	4.09 [3.79, 4.38]	1.75	3.85 [3.56, 4.15]	1.65	-0.24 [-0.57, 0.09]	-0.14 [-0.33, 0.05]
Exp Focus (<i>n</i> = 111)	4.09 [3.80, 4.39]	1.61	3.69 [3.39, 3.98]	1.63	-0.40 [-0.71, -0.09]	-0.25 [-0.44, -0.06]*
Coh Focus (<i>n</i> = 115)	3.92 [3.62, 4.22]	1.69	3.44 [3.15, 3.74]	1.62	-0.48 [-0.79, -0.17]	-0.29 [-0.48, -0.10]*
Control (<i>n</i> = 125)	4.35 [4.07, 4.65]	1.47	3.82 [3.52, 4.10]	1.58	-0.53 [-1.07, 0.00]	-0.34 [-0.69, 0.00]
<i>Physical Reaction</i>						
Shift-to-First (<i>n</i> = 115)	3.17 [2.74, 3.59]	2.07	2.87 [2.46, 3.27]	1.90	-0.30 [-0.68, 0.08]	-0.15 [-0.34, 0.04]
Shift-to-Third (<i>n</i> = 111)	4.09 [3.69, 4.49]	2.19	3.52 [3.15, 3.90]	2.04	-0.57 [-0.98, -0.16]	-0.27 [-0.47, -0.07]*

Exp Focus ($n = 111$)	3.59 [3.18, 3.99]	2.17	3.26 [2.88, 3.64]	2.00	-0.33 [-0.74, 0.08]	-0.16 [-0.35, 0.04]
Coh Focus ($n = 115$)	3.67 [3.27, 4.07]	2.14	3.13 [2.75, 3.50]	1.96	-0.54 [-0.94, -0.14]	-0.26 [-0.46, -0.07]*
Control ($n = 125$)	4.09 [3.69, 4.49]	2.23	3.72 [3.34, 4.09]	2.19	-0.37 [-0.76, 0.02]	-0.17 [-0.35, 0.01]

Notes. PANAS = Positive and Negative Affect Schedule; NA = Negative Affect; PA = Positive Affect; Exp = Experience; Coh = Coherence. Adjusted means, controlling for baseline emotion, gender, and narrative perspective difficulty; sphericity assumed. Time between sessions was 1-2 days. ^a = higher scores indicate more positive (less negative) emotion at recall.* denotes statistical meaning based on CIs.

Emotion at Time 2. An examination of narrative perspective shift and mental focus effects on emotion at Time 2 paralleled many of those found at Time 1: For negative affect, the shift-to-first condition indicated statistically meaningful lower ratings, on average, relative to the shift-to-third condition, $M_{diff} = -0.23 [-0.43, -0.03]$, $d_{unb} = -0.30 [-0.56, -0.04]$, and the control condition, $M_{diff} = -0.38 [-0.59, -0.17]$, $d_{unb} = -0.46 [-0.72, -0.20]$. Each the experience focus and coherence focus condition reported lower average ratings of negative affect relative to the control condition: $M_{diff} = -0.22 [-0.52, -0.02]$, $d_{unb} = -0.27 [-0.52, -0.02]$, and $M_{diff} = -0.30 [-0.52, -0.08]$, $d_{unb} = -0.35 [-0.61, -0.10]$, respectively. There were no statistically meaningful narrative perspective shift or mental focus effects on positive affect (CIs included zero).

For emotional valence (semantic differential item) at Time 2, the shift-to-first condition indicated that, as they thought about their event, their emotions were statistically meaningful less negative (more positive), on average, relative to the shift-to-third condition, $M_{diff} = 0.50 [0.17, 0.83]$, $d_{unb} = 0.40 [0.13, 0.66]$, and the control condition, $M_{diff} = 0.62 [0.29, 0.95]$, $d_{unb} = 0.47 [0.21, 0.73]$. Additionally, each the experience focus and coherence focus condition indicated lower negative (greater positive) emotion than the control condition: $M_{diff} = 0.37 [0.05, 0.69]$, $d_{unb} = 0.30 [0.04, 0.55]$, and $M_{diff} = 0.37 [0.04, 0.70]$, $d_{unb} = 0.29 [0.03, 0.54]$, respectively.

The shift-to-first condition also indicated statistically meaningful lower average ratings of emotional intensity at recall than the control condition, $M_{diff} = -0.57 [-0.97, -0.17]$, $d_{unb} = -0.36 [-$

0.62, -0.10]. Also at Time 2, the shift-to-first condition reported lower intensity, on average, relative to the shift-to-third condition, $M_{diff} = -0.58$ [-1.00, -0.16], $d_{unb} = -0.36$ [-0.62, -0.09]. There were no mental focus effects on intensity (CIs included zero).

Regarding physical reaction upon recall at Time 2, the shift-to-first condition indicated statistically meaningfully lower ratings, on average, relative to the shift-to-third condition, $M_{diff} = -0.67$ [-1.19, -0.15], $d_{unb} = -0.34$ [-0.60, -0.08], and the control condition, $M_{diff} = -0.87$ [-1.39, -0.35], $d_{unb} = -0.42$ [-0.68, -0.17]. Additionally at Time 2, the coherence focus condition indicated less reactivity than the control condition, $M_{diff} = -0.60$ [-1.13, -0.07], $d_{unb} = -0.29$ [-0.54, -0.04].

All other between-group contrasts across emotion measures at Time 2 were not statistically meaningful (CIs included zero).

Correlations Amongst Closure and Emotion

Relations amongst psychological closure and emotion were explored using bivariate correlational analyses. At Time 1, higher ratings of closure were found to statistically significantly correspond to lower ratings of negative emotion, $r(375) = -0.67$ [-0.72, -0.61], $p < .001$, emotional intensity, $r(375) = -0.53$ [-0.60, -0.45], $p < .001$, and reactivity at recall, $r(375) = -0.31$ [-0.40, -0.22], $p < .001$. These relationships involving closure were also significant at Time 2: negative emotion, $r(349) = -0.65$ [-0.71, -0.59], $p < .001$, emotional intensity, $r(349) = -0.47$ [-0.55, -0.39], $p < .001$, and reactivity at recall, $r(349) = -0.37$ [-0.45, -0.28], $p < .001$.

Exploratory Analyses: Cognitive Avoidance, Event Centrality, and Participant Feedback

To further probe the effects of narrative perspective shift sequences and mental focus on other variables, including cognitive avoidance and perceived centrality of the event to identity and life story, additional contrasts were conducted. Refer to Table 23 for descriptive statistics on these variables by group.

Table 23

Cognitive Avoidance and Event Centrality Ratings by Experimental Condition

	Control (<i>n</i> = 134)		Shift-to-First				Shift-to-Third			
			Experience (<i>n</i> = 64)		Coherence (<i>n</i> = 62)		Experience (<i>n</i> = 57)		Coherence (<i>n</i> = 60)	
	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>	<i>M</i> [95% CI]	<i>SD</i>
Avoidance ^c	4.40 [4.08, 4.71]	1.84	4.11 [3.67, 4.55]	1.97	3.04 [2.58, 3.50]	1.62	4.33 [3.87, 4.78]	1.87	4.05 [3.60, 4.49]	1.78
CES	3.49 [3.30, 3.68]	1.02	2.94 [2.67, 3.20]	1.07	2.96 [2.69, 3.24]	1.09	3.32 [3.04, 3.59]	0.98	3.21 [2.94, 3.47]	1.10

Notes. ^c denotes composite of two items assessing cognitive avoidance. CES = Centrality of Event Scale (7 items; Berntsen & Rubin, 2006b).

Cognitive avoidance. The extent to which individuals wished to avoid thinking about their event was assessed using two items that were averaged to create an avoidance composite, $r(375) = 0.76$ [0.66, 0.78], $p < .001$. Results indicated a main effect of narrative perspective shift, with the shift-to-first condition reporting statistically meaningfully lower avoidance, on average, relative to the shift-to-third condition, $M_{diff} = -0.62$ [-1.09, -0.15], $d_{unb} = -0.34$ [-0.59, -0.08], and the control condition, $M_{diff} = -0.83$ [-1.28, -0.38], $d_{unb} = -0.45$ [-0.69, -0.20]. There was also a main effect of mental focus, with the coherence focus condition reporting statistically meaningfully lower average ratings of avoidance relative to the experience focus condition, $M_{diff} = -0.68$ [-1.14, -0.22], $d_{unb} = -0.37$ [-0.63, -0.12], and the control condition, $M_{diff} = -0.86$ [-1.30, -0.42], $d_{unb} = -0.48$ [-0.73, -0.23]. The shift-to-first-coherence focus group provided the lowest ratings of avoidance relative to all other groups combined, $M_{diff} = -0.73$ [-1.13, -0.34], $d_{unb} = -0.40$ [-0.62, -0.18].

Event centrality. With regard to appraisals of how central to identity and life-story individuals perceived their unresolved event to be (assessed using the CES; Berntsen & Rubin, 2006b), findings indicated a main effect of narrative perspective shift sequences, with the shift-to-

first condition reporting statistically meaningfully lower centrality, on average, relative to the shift-to-third condition, $M_{diff} = -0.31$ [-0.58, -0.04], $d_{unb} = -0.29$ [-0.54, -0.04], and the control condition, $M_{diff} = -0.54$ [-0.80, -0.28], $d_{unb} = -0.51$ [-0.76, -0.27]. Each the experience focus and coherence focus conditions reported statistically meaningfully lower average ratings of centrality relative to the control condition, $M_{diff} = -0.36$ [-0.61, -0.11], $d_{unb} = -0.35$ [-0.60, -0.10], and $M_{diff} = -0.41$ [-0.67, -0.15], $d_{unb} = -0.39$ [-0.64, -0.14], respectively, however coherence and experience conditions did not differ from each other, $M_{diff} = -0.05$ [-0.22, 0.32], $d_{unb} = 0.05$ [-0.20, 0.30]. Shift-to-first conditions, followed by either an experience or coherence focus indicated lower mean ratings of centrality, relative to the control group: shift-to-first-experience versus control, $M_{diff} = -0.56$ [-0.87, -0.25], $d_{unb} = -0.54$ [-0.84, -0.24]; shift-to-first-coherence versus control $M_{diff} = -0.53$ [-0.85, -0.21], $d_{unb} = -0.51$ [-0.81, -0.20]. All other group contrasts approximated zero.

Post-hoc analysis of optional participant feedback. As earlier mentioned, participants were provided with the option to further describe their selected event and/or to provide feedback about their experience in the study following Parts 1 and 2. These responses were analyzed to further contextualize the present findings. This narrative analysis was not intended to be used as a sole basis for interpretation. Approximately 54% of the sample at Time 1 and 18% of the sample at Time 2 responded to one or both of these open-ended questions. Responses were reviewed for indications of favourable or unfavourable impressions of the study, administrative procedures, aspects of the survey, or internal effects of the study tasks or manipulations (refer to Table 24).

Table 24

Frequencies and Proportions of Features of Unstructured Event Descriptions and Feedback by Experimental Condition

	Control	Shift-to-First		Shift-to-Third		Total
		Experience	Coherence	Experience	Coherence	
Time 1	T1 <i>n</i> = 134	T1 <i>n</i> = 64	T1 <i>n</i> = 62	T1 <i>n</i> = 57	T1 <i>n</i> = 60	T1 <i>N</i> = 377
	T2 <i>n</i> = 125	T2 <i>n</i> = 57	T2 <i>n</i> = 58	T2 <i>n</i> = 54	T2 <i>n</i> = 57	T2 <i>N</i> = 351
Total Respondents	Provided response(s) to the optional unstructured event description and/or feedback open-ended questions.					
Frequency	98	28	21	28	29	204
% of Group	73.13	43.75	33.87	49.12	48.33	54.11
Unstructured Description	Provided response only to the optional unstructured event description item.					
Frequency	95	19	16	18	21	169
% of Group	70.90	29.69	25.81	31.58	35.00	44.83
% of Respondents	96.94	67.86	76.19	64.29	72.41	82.84
Feedback	Provided response only to the optional feedback item. Feedback pertained to favourable or unfavourable impressions of the study, administrative procedures, aspects of the survey, and/or internal effects of the study tasks or manipulations.					
Frequency	40	12	11	17	18	98
% of Group	29.85	18.75	17.74	29.82	30.00	25.99
% of Respondents	40.82	42.86	52.38	60.71	62.07	48.04
Favourable Feedback	Feedback pertained to favourable impressions of the study (e.g., <i>“This study was really interesting”</i>), administrative procedures (e.g., <i>“The space where I completed the survey felt safe and... comfortable to think about my past event”</i>), superficial aspects of the survey (e.g., <i>“I am grateful that...we did not have to answer questions we were uncomfortable with [and] there were a lot of options for each question”</i>), and/or effects of the study tasks or manipulations.					
Frequency	29	13	9	10	8	69
% of Group	21.64	20.31	14.52	17.54	13.33	18.30
% of Respondents	29.59	46.43	42.86	35.71	27.59	33.82
Unfavourable Feedback	Feedback involved suggestions to improve the study (e.g., <i>“15 minutes is too long for reflection time”</i> ; <i>“There could have been a few less questions”</i>), and/or pertained to the internal effects of the study tasks or manipulations.					
Frequency	10	5	4	9	8	36
% of Group	7.46	7.81	6.45	15.79	13.33	9.55
% of Respondents	10.20	17.86	19.05	32.14	27.59	17.65
Favourable Feedback Re. Study Tasks	Feedback pertained to favourable effects of the study or manipulations (e.g., <i>“It was quite interesting to have to think about the same event from different viewpoints and notice my own reactions when trying to recall the event with that perspective”</i> ; <i>“[This study] helped me put the situation behind me and move on...”</i>).					
Frequency	23	12	9	9	8	61

	% of Group	17.16	18.75	14.52	15.79	13.33	16.18
	% of Respondents	23.47	42.86	42.86	32.14	27.59	29.90
Unfavourable Feedback Re. Study Tasks		Feedback pertained to unfavourable effects of the study or manipulations (e.g., “ <i>I didn't think writing out the story was going to affect me as much as it did. I feel emotionally drained...</i> ”; “ <i>...explaining what I wrote took so much mental and emotional energy out of me because it does hurt me still...</i> ”).					
	Frequency	5	2	2	3	6	18
	% of Group	3.73	3.13	3.23	5.26	10.00	4.77
	% of Respondents	5.10	7.14	9.52	10.71	20.69	8.82
Indicated Unresolved		Indicated that the event was still experienced as unresolved (e.g., “ <i>...I know that I am still not totally over it</i> ”; “ <i>I just need closure</i> ”; “ <i>I haven't had much of a conclusion regarding that incident, and my memories and feelings about it are still fresh in my mind...</i> ”; “ <i>the event was...an internal conflict that I could not come to terms with</i> ”).					
	Frequency	56	2	2	8	8	76
	% of Group	41.79	3.13	3.23	14.04	13.33	20.16
	% of Respondents	57.14	7.14	9.52	28.57	27.59	37.25
<hr/> Time 2 <hr/>							
Total Respondents							
	Frequency	31	7	7	7	11	63
	% of Group	24.80	12.28	12.07	12.96	19.30	17.95
Unstructured Description							
	Frequency	19	2	1	4	3	29
	% of Group	15.20	3.51	1.72	7.41	5.26	8.26
	% of Respondents	61.29	28.57	14.29	57.14	27.27	46.03
Feedback							
	Frequency	18	5	7	5	8	43
	% of Group	14.40	8.77	12.07	9.26	14.04	12.25
	% of Respondents	58.06	71.43	100.00	71.43	72.73	68.25
Favourable Feedback		e.g., “ <i>I really liked the 2 parts to the study because I was able to think more about the event.</i> ”					
	Frequency	13	6	9	4	8	40
	% of Group	10.40	10.53	15.52	7.41	14.04	11.40
	% of Respondents	41.94	85.71	128.57	57.14	72.73	63.49
Unfavourable Feedback		e.g., “ <i>It was nice doing this over the computer [for Part 2]... I felt uncomfortable answering these questions and reliving a hard time in my life around others [in Part 1].</i> ”					
	Frequency	1	0	0	3	2	6
	% of Group	0.80	0.00	0.00	5.56	3.51	1.71
	% of Respondents	3.23	0.00	0.00	42.86	18.18	9.52
Favourable Feedback Re. Study Tasks		e.g., “ <i>Yesterday I was still angry and upset and reluctant to move on from it but today it's like the event happened some time ago and I've moved on from it</i> ”; “ <i>Being able to look</i>					

back on something like this was very relieving for me and I feel more at peace with the experience”; “[This study] has changed the way that I view the event and for that I am grateful.”

Frequency	9	4	5	2	5	25
% of Group	7.20	7.02	8.62	3.70	8.77	7.12
% of Respondents	29.03	57.14	71.43	28.57	45.45	39.68

Unfavourable Feedback Re. Study Tasks e.g., *“The fifteen minutes of waiting seemed slightly long and unnecessary because I found it extremely difficult to even think about the even for a minute let alone 15.”; “being told that part two would be like part one resulted in very distressing feelings about having to complete part two. I’m specifically referring to the unexpected feelings that occurred at the thought of having to sit down and type out descriptions about the event again.”*

Frequency	1	0	0	0	1	2
% of Group	0.80	0.00	0.00	0.00	1.75	0.57
% of Respondents	3.23	0.00	0.00	0.00	9.09	3.17

Indicated Unresolved e.g., *“...though I don’t feel a complete sense of closure it helped me think about the situation”; “this was difficult for me to do, but also put into perspective that I need to get over it.”; “I still feel angry and confused about this event.”*

Frequency	6	1	0	1	2	10
% of Group	4.80	1.75	0.00	1.85	3.51	2.85
% of Respondents	19.35	14.29	0.00	14.29	18.18	15.87

Of particular interest, was participants’ feedback on what they found to be helpful or unhelpful in the study. In terms of what participants found helpful, many mentioned the change in perspective, focused self-reflection, increased understanding, and other aspects of closure (e.g., moving on, coming to terms, etc.). Refer to Table 25 for a sample of participant responses illustrating favourable internal effects of the study tasks or manipulations following Part 1, along with identified themes, by narrative perspective shift condition.

Table 25

Select Feedback Responses for Indications of What Participants Found Favourable or Helpful

Regarding Their Experience in Part 1 of the Study

NPS Condition	Feedback	Themes
Control	<p>I never looked back at what I have been through until today. I used to push my experiences and thoughts to the back of my mind when it came to this event. Today, thinking about most of what happened, I felt angry, and upset, and depressed to the point where I really wanted to cry. Throughout the years I never thought about what I've been through, however, today, I realized that I've been through a whole lot more than I remembered, I was a lot stronger than I remembered. Thank you for helping me realize that.</p> <p>This study made me really think about my specific event. Typically, I don't like to analyze the situation but having 15 minutes to just think about it had a surprising effect on me.</p> <p>I was nervous at first but I would say that my overall experience was good and that I would do more of these studies and would also recommend these studies to my peers.</p>	<p>Engagement with event Less avoidance</p> <p>Engagement with event Less avoidance</p> <p>Generalized favourable experience</p>
Shift-to-Third	<p>It was really interesting to reflect on the event in a third person. I also found your questions very thought provoking and interesting, things that I would have never thought I would be asked.</p> <p>This was an interesting way to talk about the event in 3rd person. I never thought about it in that way until today.</p> <p>I felt as though I was reliving the past event, it felt very unusual to have to deeply think about the situation I was in many years ago. However, it was satisfying to think about it and try to find some closure with it.</p> <p>At this time, I feel like the event seems a little more distant and less emotional than it had at the beginning of the study. I think restating the experience in third person helped me step back from the experience and see it differently.</p> <p>I thought this study was extremely well done and it definitely asked the proper questions to make me think about the event and why I feel so strongly on it. It also gave me a sense of closure, and that the event is done and over with.</p> <p>It was nice to reflect back to it and see where I stand in the event.</p> <p>I think this has made me feel slightly better about the situation. I feel more accepting and more understanding of her prospective. Thank you. I liked this study, it's a good way for people to kind of seek some type of closure about an event that took place in their life that maybe they're not comfortable speaking about aloud to people. They say writing down your</p>	<p>Third-person interesting Unexpected questions</p> <p>Third-person interesting, novel</p> <p>Sense of reliving unusual Satisfying to think and seek closure</p> <p>Less emotional Third-person offered distance, new view of event</p> <p>Achieved sense of closure Completion</p> <p>Reflecting back See where stand in event</p> <p>More accepting of other's perspective Writing helps with identifying problem, easier than talking, good way to seek closure</p>

thoughts is a start to seeking help because you writing your thoughts is the first step into identifying that there is a problem.

Shift-to-First	<p>Writing from two different perspective helped me view things very differently. For example, when I wrote in first person I focused more on my feelings and actions but writing in third person made me think a little outside the box. I really liked this study because it made me go and self-evaluate myself and the changes I made with my life.</p>	<p>Different perspectives offered different ways of thinking about event: first-person – feelings, actions; third-person – novel Evaluation of self and life changes</p>
	<p>I thought it was quite interesting to have to think about the same event from...different viewpoints and notice my own reactions when trying to recall the event with that perspective. I feel I may try this way of thinking in future when reflecting on a past event.</p>	<p>Different viewpoints interesting Noticing own reactions Wish to try again</p>
	<p>The study really did open my eyes about the event, I no longer feel heartache but more self-confidence and self-aware and that every bad thing I can make it into a positive thing or get a positive learning curve from it.</p>	<p>Eye-opening Less heartache, more self-confidence, more self-awareness Learning experience</p>
	<p>Reliving this event has helped me put the situation behind me and move on with my life.</p>	<p>Reliving helped put situation behind, move on</p>
	<p>This allowed me to have more closure in realizing I am not the bad guy in this scenario and to not put all the blame on myself and to no longer let that affect me. Thank you.</p>	<p>More closure Realizing not bad, not worthy of blame</p>
	<p>I am just excited that I was able to go through the process and see from a different perspective. It helped me see that the way I thought about it is not the same as the way it actually happened and that it does not have to hold me back rather it can help push me forward and help me grow stronger for myself and others.</p>	<p>Excited to see from different perspective More realistic view Experience can promote growth</p>
	<p>While I had done my own sort of reflecting on the event, I am still happy to be here and have rethought about the experience in a third person perspective. This helped me see the reality of the situation rather than the way I was subjectively seeing it and beating myself up for no reason!</p>	<p>Third-person helped with more realistic view Less self-blame</p>
	<p>This was a great study that I am so happy to have participated in it. It helped me feel better about the situation that I described and now, imagining it from another perspective, I can see how this event wasn't so bad. This has helped me clear me mind a bit about it. Thank you for this.</p>	<p>Feel better Another perspective helped with new understanding of event, greater clarity</p>
	<p>This was a wonderful experience. I am going to go home and write out my experience from the 3rd person to share with others.</p>	<p>Wish to share third-person writing with others</p>
	<p>When speaking in third person I did not recall noting that I was worried about my period and that was what prompted me to tell my mother. I think that was because I only focus on how the situation all unfolded, not the reason behind it.</p>	<p>Third-person helped with greater understanding of reasons why</p>

Notes. Participant feedback listed in this table is not an exhaustive representation of feedback on the whole. NPS = Narrative perspective shift.

Participants also provided feedback about their experience following Part 2 of the study. Select portions of feedback and themes by narrative perspective shift condition are presented in Table 26.

Table 26

Select Feedback Responses for Indications of What Participants Found Favourable or Helpful

Regarding Their Experience in Part 2 of the Study

NPS Condition	Feedback	Themes
Control	Doing this study, I've realized that I'm still not over the event and I'm still dealing with the pain from the event.	Realization that still unresolved
	I actually really enjoyed this study... I think for myself it was healthy to reflect on the past and evaluate the situation from a different perspective. I became more clear that I'm not completely over the event and have a lot of self-reflection to do. This study helped me to understand that. Thank you.	Different perspective healthy, provided clarity Realization that still unresolved; need for self-reflection
	I overall enjoyed participating in this study. I think it was great to explore past events and reflect on them to see how they actually affect us. I think by answering these questions I was able to reflect on the event when I haven't before. I tended to avoid thinking about this event until yesterday in part 1.	Exploration of effects of past Engagement with event Less avoidance
Shift-to-Third	I feel like I have learned a little more about myself and I understand the event better.	Self- and event-understanding
	[This study] reminded me of the traumatic event, and how I overcame it mentally and physically. I have come a long way, and it did provide some sense of closure.	Realization of resilience and growth
	For a long time, I tried to avoid thinking about it. I feel that thinking about it for this study has somewhat helped me.	Less avoidance Thinking about event
	This study was very informative about my thoughts, feelings, and emotions. It really got me thinking that even though it has been almost 3 years these feelings are still there and very fresh.	Understanding of thoughts and emotions Realization that still unresolved
	This was difficult for me to do, but also put into perspective that I need to get over it.	Realization that still unresolved
	I feel a bit better about now, after having do this study. Less anger and regret. Doing this study was a good way for me to think of how my current actions in relationships are influenced by the event and it made me realize how much more positive my actions/thought are now compared to how negative they were right after the event occurred.	Less anger and regret Thinking event connections to actions and relationships Realization of growth

Shift-to-First	Yesterday I was still angry and upset and reluctant to move on from it but today it's like the event happened some time ago and I've moved on from it.	Distance from event Indication of greater closure
	This experience helped me put my feelings to rest.	Put feelings to rest
	Thank you for creating this study. I felt like it was CBT first hand. I found it very calming to reflect and think of the event in the 3rd person.	Third-person calming, like therapy
	The more I reflected upon the experience after the more it meant to me that I was able to really type out what that event meant to me. I had never done that before, only ran through in my mind and came to those conclusions internally. Writing down those thoughts was really cathartic for me and I'm happy I had the opportunity to do so.	Engagement with event Writing and reflection helpful
	Your questions did help me open up and understand my event a bit more and learn about myself - THANK YOU!!!	Self- and event-understanding
	Being able to look back on something like this was very relieving for me and I feel more at peace with the experience. It has changed the way that I view the event and for that I am grateful.	Relief, peace Changed view of event

Notes. Participant feedback listed in this table is not an exhaustive representation of feedback on the whole. NPS = Narrative perspective shift.

In terms of unfavourable aspects, many participants alluded to how emotionally difficult it was to think/write about their chosen event. Mention about the continued unresolved experiences of events were also analyzed. Approximately 42% of the control condition made explicit reference to their event continuing to be experienced as unresolved, whereas mention of this ranged from 3% – 14% in the other groups. At Time 2, 6% of the control condition indicated that their event still felt unresolved, compared to 1% - 2% in the other conditions (see Table 24).

PCS model fit. Additional CFAs were conducted on PCS ratings at both time points in the current study. Results indicated replication of good model fit. For Time 1, robust $\chi^2(798) = 1309.58$, $p < .0001$; $\chi^2/df = 1.64$; robust CFI = 0.939; robust RMSEA = 0.044, 90% CI [0.040, 0.049], $p < .0001$; SRMR = 0.053. For Time 2, robust $\chi^2(798) = 1297.81$, $p < .0001$; $\chi^2/df = 1.63$; robust CFI = 0.947; robust RMSEA = 0.048, 90% CI [0.044, 0.053], $p < .0001$; SRMR = 0.054.

Study 3 Discussion

Study 3 investigated how narrative perspective shift and mental focus informed ratings of closure, using the newly developed Psychological Closure Scale (PCS), and aspects of emotion (valence, intensity, and reactivity) for unresolved autobiographical memories. Effects 1-2 days later along with implications for cognitive avoidance and event centrality to identity and life-story were also explored. Hypotheses were gleaned from the proposed functions of imagery perspective (Sutin & Robins, 2008) and research demonstrating effects of narrative perspective shifting (e.g., Gu & Tse, 2016), imagery perspective (e.g., Libby & Eibach, 2011a), self-distancing (e.g., Kross & Ayduk, 2011), and mental focus (e.g., Boucher & Scoboria, 2015; 2019) on emotion, along with relationships amongst emotion, closure (e.g., Beike & Wirth-Beaumont, 2005), narrative process (Angus et al., 1999), and adaptive self-reflection (e.g., Ayduk & Kross, 2010). Finally, participant feedback was reviewed for subjective indicators of what they found helpful regarding the recall and writing interventions along with comments pertaining to the resolution status of events.

Psychological Closure and Distance

Findings demonstrated that instructing individuals to recall and write about unresolved autobiographical event-memories using different narrative perspective shift sequences in mental imagery and pronoun use (first-to-third vs. third-to-first) influenced appraisals of closure for the event, with a shift from third-person to first-person producing greater closure (vs. the other way around, or thinking alone). This was surprising in light of the aforementioned research suggesting self-distancing, via third-person imagery and a coherence focus, as a mechanism involved in increased cognitive and emotional resolution. Further, the addition of an experience focus following narrative perspective shift sequences resulted in a meaningful difference in closure amongst the shift-to-first group (higher closure) and the shift-to-third group (lower closure), whereas the addition of a coherence focus resulted in no such difference. Additionally, these effects remained 1-

2 days following the intervention. Focusing on the concrete sensorial and contextual elements of recalled events (vs. their broader self-narrative significance) following the narrative perspective shift sequences, therefore, appears to magnify shifting effects, and such effects can carry for days.

Moreover, contrary to Gu and Tse (2016), the mediating role of subjective temporal distance (how close or far away an event feels irrespective of when it is dated to have occurred) was not supported by the current findings. Furthermore, although greater subjective temporal distance corresponded to greater closure, in contrast to Crawley (2010), all writing conditions in the present study indicated *less* distance relative to those who solely thought about their event (control). Additionally, the Felt Distance (FD) subscale of the PCS (akin to subjective distance) remained impervious to writing manipulations, while other subscales - Freeing Finality (FF), Clear Understanding (CU), Emotional Release (ER), Mental Liberation (ML), Behavioural Deactivation (BD) – varied in the same direction according to narrative perspective shift sequences.

What accounts for the current findings concerning distance? One possibility includes the characteristics of memories in the current study as compared to prior research, due in part to differences in methodology. For instance, while the preservation of ecological validity supports the use of the current event cues, it is important to address potential confounds. These cues placed more distal and wider limits on the timeframe for retrieval (“within the past 6 years but *not* in the last month”), relative to other research examining perspective shifting and distance (“within one year and more than 1 day ago”; Gu & Tse, 2016, p. 162); indeed, memories were much older in the current study: 2.54 years vs. 3.33 months, respectively. According to fuzzy-trace theory (Reyna & Brainerd, 1995), retrieval becomes more abstract with the passage of time as verbatim memory traces fade. Additionally, negative events are generally remembered with less detail relative to positive events (e.g., D’Argembeau & Van der Linden, 2008; Ross & Wilson, 2002). Differential access to finer-grained information according to the age and valence of event-memories may thus

inform the extent to which methods of construal, namely more concrete methods (first-person perspective/experience focus) can exert effects, which in turn could explain discrepant findings.

Further, that groups were equivalent on memory age, while ratings of subjective distance for writing (lower distance) versus control (greater distance) conditions varied, disagrees with construal level theory (Trope & Liberman, 2010), which predicts dimensions of distance to vary in tandem; it also contradicts ideas about the function of writing (vs. thinking) as a means of cultivating distance and reduced negative emotionality (Park et al., 2016). As discussed further below, ratings of negative affect and emotional reactivity were also not equivalent across conditions, with the shift-to-first condition reporting lower negative affect, lower reactivity, and greater closure, relative to the other conditions. Memory age, emotional valence, reactivity, and subjective distance, therefore, did not show similar patterns of variance across conditions.

In any case, that the recall and writing conditions generally indicated higher closure, lower emotionality, and lower subjective distance, relative to the control group, suggests that proximity and engagement with the event (recalling and writing about it using various points of view) constitutes a potentially pivotal aspect, at least at the start, of the resolution-seeking process. To further clarify determinants of, and boundaries within which, subjective distance characterises or promotes psychological closure, future research might consider contrasting event-memories that are expected to vary naturally in subjective distance (e.g., open vs. closed; negative vs. positive; proximal vs. distal) or comparing methods by which people can produce narratives (e.g., writing vs. talking vs. thinking) using additional sessions along with pre-post measures.

The lack of narrative perspective shift effects for the felt distance and experiential change subscales of the PCS, in light of statistically meaningful effects for the other subscales, also warrants further investigation of their malleability, stability, and validity under various conditions expected to influence closure. For instance, that all recall and writing conditions consisted of shifts

in construal may have nullified effects for the experiential change subscale, for this subscale assessed the degree to which individuals felt they had gained a new way of thinking about, viewing, experiencing, or relating to their event. That is, changes in perspectives and mental foci across conditions may account for the consistent reporting of experiential change regarding events.

Furthermore, narrative perspective shift effects on the clear understanding subscale emerged at Time 2 (follow-up), but not at Time 1 (immediately after the intervention), suggesting that clarity and understanding regarding unresolved events may be enhanced through additional processing time between sessions. Indeed, select participant feedback at the follow-up session indicated as such (e.g. *“The more I reflected upon the experience after...”*). Further, as added support for the current operationalization of the construct of closure and use of reverse-scored items, participants were noted to use many terms and phrases employed by the PCS to indicate closure (“relieved”, “peace”, “distant”, “behind me”, “changed view”, “understand the event better”) or the lack thereof (“need to get over it”, “still bothers me”, “I haven’t had much of a conclusion”). Observations pertaining to participant feedback offers preliminary evidence of convergence using qualitative and quantitative methods. Nevertheless, in addition to exploring potential first- and second-order factors of the PCS (discussed in Study 1), probing issues of subscale malleability in response to experimental manipulations, investigating what participants “do” with their event between sessions, and further exploring narrative descriptions of closure are likely to hold important implications for scale refinements, construct validation, and understanding of distinct facets of closure.

The addition of a control group in this study also offers greater context regarding the effects of narrative perspective shifting on closure. That is, shifting from third-person to first-person when recalling and writing about an unresolved event-memory, irrespective of whether it was followed by an experience or coherence focus, prompted greater closure relative to the most common means individuals use to try to achieve resolution – focused thinking. Moreover, whereas all writing

conditions reported increased closure 1-2 days following the manipulation, ratings for the control group remained stable. This qualifies the old adage about how time heals by adding that time and thinking alone are not enough, at least not in the short term: Writing about an event, particularly with a shift in narrative perspective from third-person to first-person, can help move the resolution-seeking process along, beyond the spontaneous contemplation that occurs with passage of time. Statements to this effect were evident in participants' feedback. For instance, one person in the shift-to-first condition noted, "*While I had done my own sort of reflecting on the event... a third person perspective...helped me see the reality of the situation rather than the way I was subjectively seeing it...*" This is noteworthy in light of research showing that unstructured thinking about past events can incite a form of brooding rumination that works against resolution and leads people to feel worse (e.g., Nolen-Hoeksema et al., 2008; Treynor, Gonzalez, & Nolen-Hoeksema, 2003).

In all, these results suggest that it is not simply the reflection on unresolved events that incites closure, but rather *the way* individuals go about and are guided through the process of reflection: Rather than stepping back (third-person) to move on from a troubling past event, per the self-distancing view of event resolution, the current findings suggest that stepping back (third-person) *and then forward* (first-person) aids resolution more than stepping forward (first-person) and then back (third-person) or simply remaining still (thinking).

Psychological Closure and Emotion

As predicted, greater closure was found to correlate with lower negative affect, lower emotional intensity, and lower reactivity at recall. This agrees with prior work suggesting that attributions of closure are intricately related to subjective appraisals of event-related emotion at recall (Beike & Wirth-Beaumont, 2005). That ratings of positive affect remained unaffected by construal methods, with no changes over time, also accords with previous research involving unresolved (open) memories (Crawley, 2010), and with studies showing that negative affect fades

faster than positive affect (Fading Affect Bias; Walker et al., 1997). Indeed, diminishing negative affect has been suggested to contribute to the transformation of open memories into closed memories (Skowronski et al., 2004). As with findings regarding closure, it was the shift from third-person to first-person (vs. the other way around or thinking alone) that resulted in reports of lower negative affect, emotional intensity, and reactivity at recall. All writing conditions indicated lower ratings on these aspects of emotion relative to the control condition at each time point, which again speaks to the benefits of writing about unresolved events using narrative perspective shifts, particularly a shift from third to first, rather than thinking about events in hopes of resolving them.

Accounting for the Current Findings

Likewise to findings regarding closure, findings for emotion were surprising in light of previous research concerning visual imagery, narrative perspective shifting, emotion, and closure. If third-person (vs. first-person) imagery fosters subjective distance (McIsaac & Eich, 2002; Williams & Moulds, 2007); greater distance leads to reductions in emotion (Kross & Ayduk, 2008) and increases in closure (Crawley, 2010); closure and emotional intensity are inversely related (Beike & Wirth-Beaumont, 2005); and shifting from first-person to *third-person* (not vice versa) reduces emotional intensity (Gu & Tse, 2016), then what might account for the present contradictory finding that a shift from third-person to *first-person* (vs. the other way around) resulted in greater closure and lower ratings of negative affect, intensity, and reactivity at recall?

Methodological differences. To begin, this study was the first to use the PCS, which is a more comprehensive and valid assessment of closure relative to the previous 5–6 item unvalidated scale (Beike & Wirth-Beaumont, 2005; Beike et al., 2007). There are also other methodological differences between this study and prior research on narrative perspective shifting, subjective distance, and emotional intensity. For instance, in addition to the previously mentioned difference in event cues used (which reflected differences in memory age), there were discrepancies in how

narrative perspective shift manipulations were implemented. In contrast to the current single-session shifting that also included mental focus, Gu and Tse (2016) prompted individual narrative perspectives on two separate occasions (first-person or third-person in the first session and the other in the second session), separated by 1 week. It may be that the additional time between sessions allowed for continued processing of the event and/or a reversion back to baseline for the event that allowed the second manipulation to exert construal-aligned (third/abstract/far vs. first/concrete/close) effects on distance and intensity. Alternatively, perhaps the tight contrast amongst different construals in the present study served to increase awareness of the available strategies for event representation, and shifting from third to first (being a relatively less threatening more toward engagement) offered greater comfort in the application of this insight. Indeed, as noted in the review of participant feedback, individuals in the shift-to-first condition made frequent mention of the benefits of using the third-person perspective. Other departures from Gu and Tse (2016) include the manipulation instructions (imagery and pronoun vs. pronoun alone), cultural characteristics (Canadian vs. Chinese samples), and event cueing (unresolved events vs. valenced events).

Points of perspective. Hypotheses based on the various proposed functions of imagery perspective (self-distance, self-salience, and self-integration) with regard to emotion, and indirectly, closure, stemmed from research concerning visual imagery perspectives in isolation (first vs. third). This raises considerations about the applicability of these views in the current paradigm, where they could be discussed in relation to the perspective individuals were instructed to adopt first (where they started), the perspective they were instructed to adopt next (where they ended), but not what happened in between (the shift from one to the other). That is, whereas current predictions placed more emphasis on the final perspective taken (shift-to-*first* vs. shift-to-*third*), perhaps it is the shift *from* that is deserving of further deliberation. Indeed, when it comes to negative autobiographical experiences, there is evidence to suggest that recall generally occurs in the first-person, wherein

people visualize the experience happening all over again through their own eyes (Grossmann & Kross, 2010; Verduyn et al., 2012; however, see Kenny & Bryant, 2007, for evidence indicating that highly avoidant individuals tend to recall trauma memories in the third-person). First-person memories are also more prevalent than third-person memories (Nigro & Neisser, 1983; Robinson & Swanson, 1993), and first-person imagery may be incited via emotional arousal (Sutin & Robins, 2008). In this study, individuals were cued to select an event that they “currently consider to be very unpleasant and unresolved, meaning...it feels unsettled.” Thus, there may be another perspective point worth considering – where individuals actually start – which is likely to be in the first-person. The shift sequences, then, become this: first (spontaneous) to first (manipulated) to third (manipulated) versus first (spontaneous) to third (manipulated) to first (manipulated).

Discrepancies amongst shift conditions at each time point may, therefore, have to do with the ease with which individuals are able to adopt different perspectives when instructed. Ratings of narrative perspective difficulty along with feedback reports in the current study lend credence to this idea. Individuals indicated that it was more difficult to adopt a third-person perspective as compared to a first-person perspective, and they frequently remarked on the novelty of the third-person perspective; this makes sense given people’s ego-centric viewpoints and the fact that events are generally encoded as they were seen at the time they occurred. This, added to the complexity of the single-session shifting within a brief period (15 minutes) may have constrained the influence of the third-person narrative perspective, particularly when used last. Indeed, prior research exploring shifts in imagery perspective for open memories (Crawley, 2010) allowed individuals to write using a single perspective for 15 minutes. Further, as previously alluded to, it is apt to be less threatening for individuals to reflect on unresolved distressing events using a third-person perspective before moving back into the more familiar first-person perspective. In other words, the third-person narrative perspective may offer a softer entry into working through the experiential details of

unresolved event-memories. To this end, the shift-to-first condition, particularly when followed by a coherence (vs. experience) focus, reported less cognitive avoidance, relative to the shift-to-third and control conditions.

Manipulation interactions. The single-session shifting also bears questions about construal interactions. Perhaps shifting is not so rapid or clear-cut, and the effects of prior perspectives linger on in subsequent writing. Indeed, heightened negative affect following engagement with distressing material is likely to eventuate in a gradual, rather than abrupt, return to baseline levels of affect (Pascual-Leone, Yeryomenko, Morrison, Arnold, & Kramer, 2016). That is, the effectiveness of construal manipulations on emotion may have been limited by what came before, with narrative perspective shift sequences consisting of a gradual *fading into* rather than a discrete shift. This could explain why experience and coherence focus conditions did not inform emotion relative to each other and why mental focus adherence ratings were lower than in previous research on mental focus per se (Boucher & Scoboria, 2015; 2019). In other words, the effects of mental focus in the current design may have been obscured by the preceding narrative perspective shift manipulations, and potentially, their associated affective consequences. Still, the present results at follow-up revealed that writing about unresolved event-memories using either mental focus resulted in less negative emotion and less reactivity as compared to the control condition.

These accounts for the current findings having to do with differences in methodologies, temporal points of perspective, and construal interactions are, however, purely speculative. The current design speaks only to the effects of narrative perspective and mental focus shift *sequences* as recall and writing packages, relative to each other and to thinking alone. Disentangling issues pertaining to event cues, split- versus single-session shifting, perspective defaults, construal interactions (additive, synergistic, antagonistic), and functions with regard to emotion and closure necessitates revised experimental designs. For instance, future research might consider including

baseline measures of spontaneous perspective along with isolated and sequenced perspective conditions. Other potential moderators or mediators to explore include the construction of a coherent story (Graybeal et al., 2002; Meichenbaum & Fong, 1993), degree of focus on the self in memory (D'Argembeau & Van der Linden, 2008; Nigro & Neisser, 1983), and distinctions amongst past and current selves (Kross, 2009; Libby et al., 2005).

With regard to the latter, the finding that perceptions of self-change did not mediate effects of narrative perspective shifting on emotion, may have been due to the fact third-person imagery can itself magnify appraisals of change in the self (Libby & Eibach, 2009). This is to say that findings regarding self-change may have been nullified by the fact that all of the recall and writing conditions in the current study entailed a third-person narrative perspective. Narrative word analysis (e.g., LIWC; Pennebaker et al., 2007) using indicators of coherence (causation and insight words, changes in the valence of emotion words, etc.), self-focus (self-conscious emotion words, greater use of 'I' relative to other pronouns), and/or directly priming theories of self-change versus self-stability may clarify the roles of story coherence, self-focus, and temporally extended self-contrasts in informing narrative perspective and mental focus effects on closure and emotion.

Self-salience. The role of self-focus in memory is deserving of further attention as a possible determinant for the current direction of effects showing that a final distanced vantage point did not serve to blunt emotional response. That is, to the extent the ending perspectives can be considered pure (i.e., unaffected by what came before), the present findings do not lend support for the *self-distancing* view (self-distance did not mediate effects) or the *self-integration* view (self-change did not mediate effects) of imagery perspective, but they may be said to lend support for the *self-salience* view. In such cases, the third-person perspective increases visual and emotional attention to the self in memory (current cue: "...in your mind, form images of yourself and your surroundings..."), which can strengthen the connection amongst current and recalled selves, thereby

increasing emotion relative to the first-person perspective. This view is supported by studies showing higher ratings of vividness and emotion for third-person as opposed to first-person memories (Giovanetti et al., 2019; Marigold, Eibach, Libby, Ross, & Holmes, 2014; Terry & Barwick, 1998).

Furthermore, the majority of events in this study were determined to be relational or self-relevant in nature (e.g., break-ups, identity or role changes) or to center on health or loss-related issues (e.g., receiving a diagnosis, losing a loved one). It may be that these events incite a greater focus on the self and self-conscious emotions such as shame, embarrassment, guilt, or grief, making them more susceptible to higher emotionality, hence lower closure, following a third-person (vs. first-person) perspective. Indeed, these event types (i.e., relational and personal) align with those found by Seih et al. (2011), who investigated perspective taking and perspective switching via pronoun use. In line with the current findings, these authors found that a first-person perspective, whether in isolation, or following a second- or third-person perspective conferred greater benefits in expressive writing, in terms of subjective appraisals of value and emotionality. They also found that, relative to ending in the third-person perspective, ending in the first-person perspective incited greater cognitive processing for negative emotional experiences (indicated by cognitive mechanism words like *because*, *consider*, *realize*, *understand*). Interestingly, participants in Seih et al. (2011) also reported greater emotionality while writing in the first-person as compared to the third-person. This contrasts the current referent for emotion ratings, which was *after* the entire intervention. This raises questions about moment-to-moment cognitive and emotional change processes for recall and writing interventions. To clarify the function of self-salience in this regard, future research could investigate the degree of self-focus and the presence of self-conscious emotions prior to, during, and following the retrieval and writing interventions, or manipulate events based on self-relevance.

In terms of the “cognitive-affective crossfire,” wherein self-enhancement and self-verification motives conflict, the present findings (and Seih et al., 2011) suggest a preference for cognitive consistency over affective enhancement (which accords with Swann et al., 1987). That is, individuals appear to be more inclined and receptive to engaging in difficult experiential processing if it supports greater understanding of how a past event, and self contained within the event, relates to the present (and perhaps future), and that doing so eventually leads to reduced emotionality for the event.

Implications for Narrative Process and Expressive Writing

Given the current interventions entailed written narratives of unresolved event-memories, this study also prompts considerations about the course and consequences of constructing and reconstructing stories of life events. According to narrative process theory (Angus et al., 1999; Angus & McLeod, 2004), repeated decentering and reengagement with distressing life experiences using different vantage points can foster a new understanding of the self, and of the self in relation to others. The reflexive processing of emotions, beliefs, needs, hopes, and motives regarding an event is thought to enable the integration of that experience (micronarrative) within a broader life-story (macronarrative; Angus & Hardtke, 1994). It may be then, that narrative perspective and mental focus sequences foster novel and flexible deliberations about unresolved events that allow for the cultivation of meaningful frameworks within which to understand and feel differently about them.

Vital to the development of reflexive elaboration and new understanding is emotional arousal (Angus et al., 1999), the idea being not to move away from it (per self-distancing views; Kross & Ayduk, 2011), but rather, to lean into it (per experiential or emotion-focused approaches to resolution; e.g., Greenberg, 2011). To this end, Pascual-Leone et al. (2016) describe a jagged “two steps forward, one step back” (p. 343) pattern of change in emotional arousal when reflecting on traumas over the course of a 3-day expressive writing task, with localized (within session) increases

and overall (across session) decreases in negative arousal. Descriptions of emotionally salient autobiographical events are therefore thought to provide an essential experiential starting point for the articulation of meaning (Foa & Kozak, 1986; Rachman, 1980), wherein a pattern of narration from external to internal and reflexive is encouraged (Angus & Greenberg, 2011). Although emotion-focused research has primarily centered on psychotherapeutic processes of change in outlining the utility of adopting perspectives of imagined others or part-selves (akin to theory of mind; Premack & Woodruff, 1978), rather than mental imagery or pronoun use per se, the proposed benefits of dynamically moving through the details of difficult past experiences in order to move past them (i.e., achieve closure) holds clear relevance for the current writing interventions.

Decades of research underscores how writing about traumatic events in this way (per Pennebaker & Francis, 1996) can promote physical and mental health benefits, including reduced rumination, improved mood, and fewer visits to the doctor (Baikie & Wilhelm, 2005; Frattaroli, 2006; Pennebaker & Chung, 2007, Pennebaker & Seagal, 1999; Smyth, 1998). Park and colleagues (2016) propose that greater subjective distance between the current self and the past self contained in the event is what accounts for the benefits of multi-session expressive writing (vs. thinking). Further, expressive writing instructions prompt an experiential starting point by asking people to, “Write about your very deepest thoughts and feelings...really let go and explore your very deepest emotions and thoughts...” (Pennebaker & Chung, 2011, p. 419). If people begin with a focus on their internal (distressing) experiences and continue writing about them over consecutive sessions, it is reasonable to expect such reflections to wane, which in turn, leads to a sense of greater distance. In contrast, the present narrative perspective and mental focus instructions made no mention of current feelings regarding an unresolved event; they simply asked people to recall and write about the event using different perspectives and then to focus on different elements of the event (concrete details vs. self-narrative significance) within a single session. That the shift-to-first condition

reported less negative affect, less intensity, and less reactivity, relative to the other conditions, may be indicative of emotional processing incited by this shift sequence, even without explicit prompting. In other words, people may not need to be *told* to reflect on their emotions in order to reflect on their emotions, due to an already present motive to do so.

Nevertheless, whereas the traditional expressive writing paradigm encourages a coming away from current experience (where the focus is on present stressors), the current paradigm can be said to support a move *toward* past experience (via the shift toward a first-person account and an experiential focus), as a means of achieving greater resolution. Such discrepancies amongst writing interventions raises questions about the temporal placement of emotion and relations to the current self as rememberer, which, even if retrospective, may constitute a pivotal determinant of emotion change and closure. That is, the drive toward cognitive and affective resolution may be differentially supported by methods that guide the processing of recollected emotion at encoding versus current emotion at retrieval. Resolution-seeking efforts can also be distinguished from resolution made, and it remains unknown whether and how closure (outcome) is related to narrative modes and reflexive emotional processing (processes). If narrative mode sequences inform emotion and meaning, both of which characterise closure, and narrative perspective shifting produces changes in closure, then perhaps narrative mode sequences, by way of narrative perspective shifting, can explain the current findings.

Pennebaker and Chung (2007) note that greater meaning for distressing experiences can be achieved via “a perspective shift and the ability to detach ourselves from our surroundings” (p. 432). The current findings lend credence to this idea, and add to it through the specification of more optimal (third-to-first) and less optimal (first-to-third) perspective shift sequences for the attainment of greater closure and lower emotional reactivity. It may be that a narrative perspective shift sequence from third to first represents a toggling of cognitive and emotional contact with

unresolved event-memories in a way (toward the event, rather than away from it) that facilitates resolution. Indeed, a number of participants provided feedback that identified re-engagement with the event, reduced avoidance, and new ways of understanding and experiencing their event as helpful aspects in the attainment of greater closure. Unravelling issues pertaining to reference points for emotion and relations amongst narrative perspectives and process modes as determinants of closure and emotion for unresolved events may be achieved through a more refined mixed-methods approach. For instance, future studies could contrast writing interventions with different emotional referents and analyze participants' narratives for process modes and other change mechanisms.

Implications for Event-Memory Theory

Using the theatre metaphor of event memory (Rubin & Umanath, 2015), it appears that the usual "seat" to take within the space context of remembering a distressing autobiographical event is on the stage, where one is able to view and describe the event using the first-person narrative perspective. Engaging in a narrative perspective shift for this personally experienced event, then, places oneself in an unfamiliar seat in the audience, relative to the event (rather than in it), which affords the possibility of scene reconstruction in support of a coherent narrative. Moving from this never-experienced third-person perspective in the audience back to the usual first-person perspective on stage not only invites new insights, evaluations, and interpretations of the event, but it also offers novel ways of re-engaging with the event that are less threatening (hence, there is less inclination to avoid them). In other words, shifting from a third-person to a first-person narrative perspective offers a more nuanced understanding of the character (remembered self), a more contextualized understanding of the scene (the unresolved memory), and enhances performance (less avoidance and reactivity at recall). In contrast, performing on stage without a director to guide the meaning-making process (thinking alone) is not effective in achieving such an integrated view.

Implications for Adaptive Self-Reflection

To the potential adaptiveness of narrative perspectives, there have been disagreements in the literature, particularly with regard to the use of the third-person perspective (akin to self-distancing) for distressing event-memories (e.g., Kross & Ayduk, 2010; McIsaac & Eich, 2004). If more abstract construal methods (third-person perspective, coherence focus) aid in the integration of events within an overarching framework of self-views and life-themes, yet the events under consideration continue to be experienced as distressing or unresolved, then it is conceivable that prompting such construals would be problematic and threatening to current conceptions of self. This notion is supported by the present findings showing that ratings of closure varied around the mid-range of the PCS (i.e., events were not deemed fully resolved). Further, those who shifted from third-person to first-person not only reported *greater* closure and *less* emotional reactivity, but they also appraised their unresolved event as *less* central to their identity and life-story, and they were *less* avoidant to thinking about it, relative to those who shifted from first-person to third-person or who thought about their event. Berntsen and Rubin (2006a) suggest that perceived centrality for distressing or traumatic events can coincide with maladaptive attributions, rumination, depression, and PTSD symptom severity. Further, Williams and Moulds (2007) highlight the importance of first-person experiential processing (as opposed to avoidance) in the adaptive reconciliation of troubling event-memories (indicated by reduced intrusions) for individuals with depression.

Therefore, that participants in the shift-to-first condition indicated that their unresolved events were less central to their identities and life-stories and that they reported being less avoidant to reflecting on their thoughts and feelings about the events, relative to the other conditions, suggests that this narrative perspective shift sequence likely confers adaptive value in the resolution-seeking process. Future research could further elucidate the adaptiveness of narrative perspective shifting and mental focus in recall and writing tasks by investigating relations with

theoretically more versus less adaptive cognitive and emotional responses to upsetting event-memories, for instance, as operationalized by Garnefski and colleagues (2001).

Implications for Clinical Work

This study extends research on expressive writing, and is the first to identify particular narrative perspective and mental focus sequences that foster increased closure for unresolved event-memories. This is particularly relevant in a clinical domain, where troubling or traumatic memories are a frequent focus. There are numerous schools of thought that emphasize the importance of identifying ways of changing the way people process and represent aversive past experiences that can lead them to become less distressed when thinking about them again in the future (e.g., Foa & Kozak, 1986; Greenberg & Angus, 2004; Rachman, 1980; Resick, Monson, & Chard, 2007). Indeed, many effective therapies use a combination of distancing and engagement strategies (e.g., Beck, 2011; Greenberg, 2011; Linehan, 2015) and many prominent theories regard the establishment and maintenance of an integrated self as vital to adaptive functioning and psychological well-being (e.g., Kohut, 1977).

In the context of psychotherapy, writing interventions and construal methods can be regarded as representational tools that, in combination with other therapeutic tools and processes, may help to facilitate resolution, rather than as a sole means of cultivating resolution *cart blanche*. Indeed, there may be individual difference factors to consider, such as baseline abilities to abstract or retrieve specific details in memory, or vulnerabilities to psychopathology. For instance, clinical populations (e.g., those diagnosed with PTSD, depression, and/or generalized anxiety) are generally more prone to a memory phenomenon known as overgeneralized memory (OGM) – an inability to retrieve specific events or details in autobiographical memory (e.g., Moore & Zoellner, 2007; Sumner, Griffith, & Mineka, 2010; Williams, 1996; Williams & Broadbent, 1986) – which could place limits on the processing of events in the first-person. Furthermore, Giovanetti et al. (2019),

provide evidence suggesting that a third-person perspective in expressive writing may be harmful for individuals who possess cognitive vulnerabilities to depression (e.g., negative thinking and recall biases), while the current findings, based on a non-clinical undergraduate population, suggest that shifting toward a third-person perspective is not exactly harmful; in terms of promoting closure, it is just no better than thinking alone.

In any case, the current writing interventions are likely to offer a useful aid for psychotherapeutic work aimed at helping patients reprocess difficult life experiences or episodic memories (e.g., as in the context of systematic evocative unfolding; Greenberg, 2011). Additionally, the PCS offers a fitting assessment of autobiographical event resolution that can be implemented to assess changes session-to-session or over the full course of therapy. It will be important for future work to continue to identify effective means of supporting individuals in their search for psychological closure and to evaluate their effectiveness in real-world clinical settings.

Limitations

There are some limitations worth highlighting for Study 3 that may serve to modify interpretations. To start, group sizes were disproportionate – the control group consisted of nearly twice as many participants than each of the four experimental writing groups. This was due to a randomization error (based on survey construction and software). Although there is no generally agreed upon cut-off for size discrepancies amongst groups (Wickens & Keppel, 2004), unequal group sizes may introduce confounds or unequal variances that can reduce statistical power and increase risks for Type 1 Error (via the constriction of CIs; Rusticus & Lovato, 2014). Such risks, however, pertain to group interaction contrasts more so than condition contrasts for the two main factors, narrative perspective shifting and mental focus, as these groups sizes were roughly equivalent. That the assumption of homogeneity of variance was met in this study also lessens risks for errors in inference based on the results. Thus, while unequal group sizes constitute an important

consideration in interpreting results, this is most pertinent to interpretations of crossed effects (narrative perspective shift x mental focus), and is less likely to unduly influence interpretation of univariate effects (narrative perspective shift and mental focus, separately).

Second, all participants were given the option of providing additional information about their event or feedback about their experience in the study. These options were added for ethical reasons in light of the unresolved nature of events, so that risk could be monitored and participants could be afforded agency over choosing whether and how to describe their event. Following completion of Part 1 of the study (after the intervention and ratings on the dependent measures), approximately 73% of those in the control condition (98 participants) chose to provide information about their unresolved event and/or to offer feedback; this estimate stands in contrast to the 34–49% of those who did so across the recall and writing conditions (21–29 participants). Additionally, 42% of those in the control condition (56 participants) reported that their event was still experienced as unresolved, while 3–14% of those in the recall and writing conditions (2–8 participants) indicated as such. These estimates accord with quantitative findings showing that the control condition provided statistically significantly lower ratings of closure and higher ratings of emotional reactivity, on average, relative to those in the recall and writing conditions. The perceived lack of resolution for control participants may have prompted a desire “take action” through writing to try to achieve greater resolution (in agreement with the behavioural deactivation subscale of the PCS).

Given the relatively large portion of individuals in the control condition who opted write about their event at the end of Part 1 of the study (71% or 95 participants), potential threats to internal validity need to be considered for Part 2/Time 2. That is, Time 2 findings regarding changes or differences in closure and emotion ratings for the control condition may not necessarily be attributable to thinking alone, and could, at least in part, be a function of additional unstructured writing. Given known benefits of writing, this potentially implies larger differences amongst control

and writing conditions at Time 2 than those reported here. In any case, the control condition showed no changes in closure and emotion over time (i.e., ratings remained stable from Time 1 to Time 2), which further indicates that the *way* in which individuals are guided through the recall and writing process for unresolved events matters. Future research aimed at contrasting recall and writing interventions against focused thinking may wish to consider alternative ethical buffers that would allow for more confident interpretations.

Third, as previously mentioned, the current methodology prevents inferences regarding the localization of effects for narrative perspective shifting and mental focus, and the use of multiple shifts in sequence within a condensed timeframe (15 minutes) is likely to add another layer of complexity. The present interventions called for individuals to quickly and flexibly shift amongst cognitive frames in mental imagery and pronoun use while writing about unresolved and distressing material - arguably not a common practice in everyday life. That individuals reported greater difficulty, on average, with adopting a third-person (vs. first-person) perspective, remarked on the novelty of the third-person perspective (via written feedback), and provided lower ratings of adherence to the mental focus instructions than in previous research (Boucher & Scoboria, 2015; 2019), all suggest increased cognitive and emotional demand, and hence, more gradual than abrupt shifting. Interestingly, despite reported difficulties with the third-person narrative perspective, many participants across conditions identified this as a helpful component of the writing task.

It is also important to recognize that the effects of narrative perspective shifting and mental focus on closure at each time point were moderate at best, and that shifts in closure over time were not dramatic (< 1 point), with even the highest mean ratings landing around the mid-point of the scale. Future studies aimed at strengthening internal validity for independent versus combined effects of narrative perspective and mental focus call for revised experimental designs that include, for instance, recovery or distractor periods between construal methods, increases time allotted for

each construal method, and/or more sessions as in traditional expressive writing interventions (i.e., 15-minute writing periods over three or four consecutive days; Pennebaker & Francis, 1996).

Finally, although convergence amongst quantitative and qualitative findings was highlighted throughout, it is crucial to acknowledge that the analysis of participant feedback and resolution status was conducted post-hoc as a supplemental means of contextualizing the current unexpected findings for closure and emotion. That is, the analysis of participant feedback is not intended to serve as a stand-alone method from which to draw conclusions. Confident inferences based on the integration of quantitative and qualitative methods calls for more robust approaches to narrative analysis, for instance, through the use of independent raters who are blind to the purpose and quantitative findings of the study, the assessment of interrater agreement, and the application of validated coding schemes or word-reading software aimed at identifying content, meaning, structure, function, and/or style of both event narratives and feedback responses. Such mixed-methods approaches are likely to shed more light on the processes, predictors, and outcomes of autobiographical event resolution.

Future Directions

There are many potential directions stemming from the current research that serve to further elucidate our understanding of construal methods in recall and writing tasks. To summarize, suggestions for future research include further investigation of potential moderators or mediators of the effect of narrative perspective shifting on closure and emotion, including subjective temporal distance (e.g., cueing for events that vary in proximity to the present and/or degree of closure), current self-theories (e.g., priming theories of change vs. stability), degree of self-focus (e.g., cueing for events pertaining to self vs. others), presence of self-conscious emotions (e.g., using pre-post measures), story coherence (e.g., identifying cognitive mechanism words), reference points for evoked emotion (e.g., contrasting recollected emotion at encoding vs. retrieval), narrative process

modes (e.g., coding for internal, external, and reflexive statements), degree of memory rehearsal or sharing (e.g., using ratings scales), vulnerability to or presence of psychopathology (e.g., assessing risk factors and levels of depressive or post-traumatic stress symptoms), and/or other individual difference factors (e.g., mental imagery, cognitive flexibility, memorial specificity, psychological mindedness, or tendencies to engage in more vs. less adaptive coping strategies).

Future research could also examine independent and combined effects of construal methods (e.g., using construal method interventions in isolation, multiple sessions, baseline measures of perspective and closure), and introduce methodological changes that would allow for more confident and internally valid inferences (e.g., equal and larger group sizes, ethical safeguards other than writing, recovery periods between construal methods, greater duration and/or frequency of construal interventions and sequences thereof, and sound approaches to narrative analysis). Finally, investigating applications of the current recall and writing tasks and the PCS in real-world clinical contexts would further clarify their utility as psychotherapeutic tools and/or indicators of progress.

Summary and Conclusion

In a series of three studies, this research sought to construct a measure of psychological closure (Study 1), evaluate its psychometric properties and construct validity (Study 2), and apply it as an outcome measure within the context of an experimental writing paradigm for unresolved event-memories (Study 3).

The Psychological Closure Scale (PCS) is a 42-item self-report measure for use with nonclinical populations and a range of autobiographical events. The PCS assesses seven aspects of event resolution: finality, understanding, felt distance, emotional relief, changed aspects of experience at recall, less preoccupation, and reduced need to take action. The PCS delivers a multifaceted operationalization of the construct of psychological closure that is based on a thorough review of various definitions, dimensions, and theoretical contexts. The scale has demonstrated

good model-fit, internal consistency, test-retest reliability, and construct validity via statistically meaningful correlations with theoretically related constructs (e.g., unfinished business resolution), along with the lack of correlations with theoretically unrelated constructs (e.g., trait responses to emotions). Model fit was replicated using independent samples from Studies 2 and 3, which speaks to the robustness of the current factor structure for the PCS.

Study 3 then explored changes in closure and aspects of emotion (valence, intensity, and reactivity) immediately and 1-2 days after recalling and writing about an unresolved event-memory using one of two narrative perspective shift sequences (first-person to third-person vs. third-person to first-person) and one of two mental foci (experience focus vs. coherence focus), or simply thinking about the event for an equivalent amount of time. Participants who wrote about their event using a third- then first-person narrative perspective (shift-to-first) provided the highest ratings of closure, particularly on PCS subscales pertaining to freeing finality, emotional release, mental liberation, and behavioural deactivation, relative to the other conditions (shift-to-third, control). Mental focus alone did not inform ratings of closure. The shift-to-first condition also reported the lowest mean ratings of negative affect and emotional reactivity at recall. The same pattern of effects remained 1-2 days later. Also at follow-up, the shift-to-first condition indicated higher average ratings on the PCS subscale pertaining to clear understanding along with lower average ratings of emotional intensity than the other conditions. Closure increased and aspects of emotion decreased over time for all recall and writing conditions but not the control condition. Finally, relative to the shift-to-third and control conditions, those who shifted from third-person to first-person indicated less avoidance to thinking about their unresolved event and they appraised their event as less central to their identity and life-story. Various potential accounts for the current findings, as informed by research on perspective-taking, expressive writing, narrative processing, and adaptive self-reflection, along with limitations and fruitful avenues for future research were presented.

This program of research provides a new measure of psychological closure with preliminary evidence of good psychometric properties, along with an applied use as an outcome measure within a randomized control writing paradigm aimed at elucidating effective means of facilitating autobiographical event resolution. In so doing, it addressed theoretical and empirical discrepancies concerning the function and adaptive value of imagery and narrative perspectives and ordered sequences thereof. On the whole, that those who shifted from third-person to first-person reported *greater* closure, *lower* emotional reactivity, *lower* event centrality to identity, and *lower* cognitive avoidance, relative to the other conditions, points to the adaptive value of this narrative perspective shift sequence in the resolution-seeking process. This holds relevance for psychotherapeutic work where autobiographical event resolution, memory-induced emotion regulation, and self-narrative integration are sought-after outcomes. Psychological closure and adaptive self-reflection are thought to be facilitated by features of the retrieval context – shifting vantage points in visual imagery and narration – that support sufficient distance from, followed by re-engagement with, unresolved past events, elements within the events, and the self as rememberer, tied to the present.

REFERENCES

- Addis, D. R., Pan, L., Vu, M. A., Laiser, N., & Schacter, D. L. (2009). Constructive episodic simulation of the future and the past: Distinct subsystems of a core brain network mediate imagining and remembering. *Neuropsychologia*, *47*(11), 2222-2238.
doi:10.1016/j.neuropsychologia.2008.10.026
- Adler, J. M., & Poulin, M. J. (2009). The political is personal: Narrating 9/11 and psychological well-being. *Journal of Personality*, *77*(4), 903-932. doi:10.1111/j.1467-6494.2009.00569.x
- Aickin, M., & Gensler, H. (1996). Adjusting for multiple testing when reporting research results: the Bonferroni vs. Holm methods. *American Journal of Public Health*, *86*(5), 726-728. doi: 10.2105/AJPH.86.5.726
- Albert, S. (1983). The sense of closure. In K. Gergen & M. Gergen (Eds.), *Historical social psychology* (pp. 159-172). Hillsdale, NJ: Erlbaum.
- Alter, A. L., & Oppenheimer, D. M. (2008). Effects of fluency on psychological distance and mental construal (or why New York is a large city, but New York is a civilized jungle). *Psychological Science*, *19*(2), 161-167. doi:10.1111/j.1467-9280.2008.02062.x
- Angus, L. E., & Greenberg, L. S. (2011). *Working with narrative in emotion-focused therapy: Changing stories, healing lives*. Washington, DC: American Psychology Association.
- Angus, L., & Hardtke, K. (1994). Narrative processes in psychotherapy. *Canadian Psychology*, *35*(2), 190. doi: 10.1037/0708-5591.35.2.190
- Angus, L., Levitt, H., & Hardtke, K. (1999). The narrative processes coding system: Research applications and implications for psychotherapy. *Journal of Clinical Psychology*, *55*(10), 1255-1270. doi: 0.1002/(SICI)1097-4679(199910)55:10<1255::AID-JCLP7>3.0.CO;2-F
- Angus, L. E., & McLeod, J. (Eds.). (2004). *The handbook of narrative and psychotherapy: Practice, theory and research*. Sage.

- Apgar, S. C. (1997). Fighting back on paper and in real life: Sexual abuse narratives and the creation of safe space. In T. Kuribayashi, & J. Tharp (Eds.), *Creating safe space: Violence and women's writing* (pp. 47-58). Albany, NY: SUNY Press.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, *63*(4), 596-612.
doi:10.1037/0022-3514.63.4.596
- Ayduk, Ö., & Kross, E. (2008). Enhancing the pace of recovery: Self-distanced analysis of negative experiences reduces blood pressure reactivity: Short report. *Psychological Science*, *19*(3), 229-231. doi: 10.1111/j.1467-9280.2008.02073.x
- Ayduk, Ö., & Kross, E. (2010). From a distance: Implications of spontaneous self-distancing for adaptive self-reflection. *Journal of Personality and Social Psychology*, *98*(5), 809–829.
doi:10.1037/a0019205
- Baas, M., De Dreu, C. K. W., & Nijstad, B. A. (2011). Creative production by angry people peaks early on, decreases over time, and is relatively unstructured. *Journal of Experimental Social Psychology*, *47*(6), 1107-1115. doi:10.1016/j.jesp.2011.05.009
- Baikie, K. A., & Wilhelm, K. (2005). Emotional and physical health benefits of expressive writing. *Advances in Psychiatric Treatment*, *11*(5), 338-346. doi: 10.1192/apt.11.5.338
- Barsalou, L. W. (2008). Grounded cognition. *Annual Review of Psychology*, *59*, 617-645.
doi:10.1146/annurev.psych.59.103006.093639
- Beck, J. S. (2011). *Cognitive behavior therapy: Basics and beyond*. New York, NY: Guilford press.
- Beck, A. T., Rush, A. J., Shaw, B. F., Emery, G. (1979). *Cognitive therapy of depression*. New York, NY: Guilford Press.
- Beike, D. R. (2002). *Coping with September 11 and gaining closure*. Paper presented at the annual meeting of the American Psychological Society, New Orleans, L.A.

- Beike, D. R., Adams, L. P., & Naufel, K. Z. (2010). Closure of autobiographical memories moderates their directive effect on behaviour. *Memory, 18*(1), 40-48. doi:10.1080/09568210903405729
- Beike, D. R., Adams, L. P., & Wirth-Beaumont, E. T. (2007). Incomplete inhibition of emotion in specific autobiographical memories. *Memory, 15*(4), 375-389.
doi:10.1080/09658210701276850
- Beike, D. R., & Crone, T. S. (2012). Autobiographical memory and personal meaning: Stable versus flexible meanings of remembered life experiences. In P. T. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd ed., pp. 315-334). New York, NY: Routledge/Taylor & Francis Group. doi:10.4324/9780203146286
- Beike, D. R., Kleinknecht, E., & Wirth-Beaumont, E. T. (2004). How emotional and nonemotional memories define the self. In D. R. Beike, J. M. Lampinen, & D. A. Behrend (Eds.), *Studies in Self and Identity. The Self and Memory* (pp. 141-159). New York: Psychology Press. doi: 10.4324/9780203337974
- Beike, D. R., Markman, K. S., & Karadogan, F. (2009) What we regret most are lost opportunities: A theory of regret intensity. *Personality and Social Psychology Bulletin, 35*(3), 385-397.
doi:10.1177/0146167208328329
- Beike, D. R., & Wirth-Beaumont, E. T. (2005). Psychological closure as a memory phenomenon. *Memory, 13*(6), 574-593. doi:10.1080/09658210444000241
- Beike, D. R., & Wirth, E. T. (2000) [Affective consequences of recalling open versus closed memories]. Unpublished data.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*(2), 238-246.

- Bernstein, A., Hadash, Y., Lichtash, Y., Tanay, G., Sheperd, K., & Fresco, D. M. (2015). Decentering and related constructs: A critical review and metacognitive process model. *Perspectives on Psychological Science, 10* (5), 599-617. doi:10.1177/1745691615594577
- Berntsen, D., & Bohn, A. (2010). Remembering and forecasting: The relation between autobiographical memory and episodic future thinking. *Memory and Cognition, 38*(3), 265-278. doi:10.3758/MC.38.3.265
- Berntsen, D., & Rubin, D. C. (2006a). Emotion and vantage point in autobiographical. *Cognition and Emotion, 20*(8), 1193-1215. doi: 10.1080/02699930500371190
- Berntsen, D., & Rubin, D. C. (2006b). Centrality of event scale: A measure of integrating a trauma into one's identity and its relation to posttraumatic stress disorder symptoms. *Behaviour Research and Therapy, 44*(2), 219-231. doi:10.1016/j.brat.2005.01.009
- Berntsen, D., Willert, M., & Rubin, D. C. (2003). Splintered memories or vivid landmarks? Qualities and organization of traumatic memories with and without PTSD. *Applied Cognitive Psychology, 17*(6), 675-693. doi:10.1002/acp.894
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., . . . Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230-241. doi:10.1093/clipsy.bph077
- Blackie, L. E., Jayawickreme, E., Tsukayama, E., Forgeard, M. J., Roepke, A. M., & Fleeson, W. (2017). Post-traumatic growth as positive personality change: Developing a measure to assess within-person variability. *Journal of Research in Personality, 69*, 22-32. doi: 10.1016/j.jrp.2016.04.001
- Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research, 17*(3), 303-316. doi: 10.1177/0049124189017003004

- Boomsma, A. (2000). Reporting analyses of covariance structures. *Structural Equation Modeling*, 7(3), 461-483. doi: 10.1207/S15328007SEM0703_6
- Boss, P., & Carnes, D. (2012). The myth of closure. *Family Process*, 51(4), 456-469.
doi:10.1111/famp.12005
- Boucher, C. M., & Scoboria, A. (2015). Reappraising past and future transitional events: The effects of mental focus on present perceptions of personal impact and self-relevance. *Journal of Personality*, 83(4), 361-375. doi:10.1111/jopy.12109
- Boucher, C. M., & Scoboria, A. (2019, submitted for review to the Journal of Personality and Social Psychology). *Contemplating change for better or worse: Mental focus and event valence alter appraisals of impact and emotion for memories of positive and negative life transitions.*
- Bower, G. H. (1981). Mood and memory. *American Psychologist*, 36(2), 129-148. doi:10.1037/0003-066X.36.2.129
- Bradley, M. M., & Lang, P. J. (1994). Measuring emotion: The self-assessment manikin and the semantic differential. *Journal of Behavior Therapy and Experimental Psychiatry*, 25(1), 49–59. doi:10.1016/0005-7916(94)90063-9
- Brewin, C. R. (1996). Cognitive processing of adverse experiences. *International Review of Psychiatry*, 8(4), 333-339. doi:10.3109/09540269609051548
- Brooks, A. W. (2014). Get excited: Reappraising pre-performance anxiety as excitement. *Journal of Experimental Psychology: General*, 143(3), 1144-1158. doi:10.1037/a0035325
- Brown, W. (1910). Some experimental results in the correlation of mental abilities. *British Journal of Psychology*, 3, 296–322.
- Brown, N. R., & Lee, P. J. (2010). Public events and the organization of autobiographical memory: An overview of the living-in-history project. *Behavioural Sciences of Terrorism and Political Aggression*, 2(2), 133-149. doi:10.1080/19434471003597431

- Bucci, W., & Freedman, N. (1981). The language of depression. *Bulletin of the Menninger Clinic*, 45(4), 334-358.
- Butler, A. C., Rice, H. J., Wooldridge, C. L., & Rubin, D. C. (2016). Visual imagery in autobiographical memory: The role of repeated retrieval in shifting perspective. *Consciousness and Cognition*, 42, 237-253. doi:10.1016/j.concog.2016.03.018
- Cattell, R. B. (1978). *The scientific use of factor analysis in behavioral and life sciences*. New York, NY: Plenum Press.
- Chang, J. H., Huang, C. L., & Lin, Y. C. (2013). The psychological displacement paradigm in diary-writing (PDPD) and its psychological benefits. *Journal of Happiness Studies*, 14(1), 155-167. doi: 10.1007/s10902-012-9321-y
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309-319. doi:10.1037/1040-3590.7.3.309
- Comrey, A. L. (1988). Factor-analytic methods of scale development in personality and clinical psychology. *Journal of Consulting and Clinical Psychology*, 56(5), 754-761. doi:10.1037/0022-006X.56.5.754
- Conway, M. A. (2005). Memory and the self. *Journal of Memory and Language*, 53(4), 594-628. doi:10.1016/j.jml.2005.08.005
- Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review*, 107(2), 261-288. doi:10.1037/0033-295X.107.2.261
- Crawley, R. A. (2010). Closure of autobiographical memories: The effects of written recounting from first-or third-person visual perspective. *Memory*, 18(8), 900-917. doi:10.1080/09658211.2010.524650

- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281. doi: 10.1037/h0040957
- Crum, A. J., Salovey, P., & Achor, S. (2013). Rethinking stress: The role of mindsets in determining the stress response. *Journal of Personality and Social Psychology*, 104(4), 716-733.
doi:10.1037/a0031201
- Cumming, G. (2014). The new statistics: Why and how. *Psychological Science*, 25(1), 7-29. doi: 10.1177/0956797613504966
- D'Argembeau, A., & Van der Linden, M. (2004). Phenomenal characteristics associated with projecting oneself back into the past and forward into the future: Influence of valence and temporal distance. *Consciousness and Cognition*, 13(4), 844-858.
doi:10.1016/j.concog.2004.07.007
- D'Argembeau, A., & Van der Linden, M. (2008). Remembering pride and shame: Self-enhancement and the phenomenology of autobiographical memory. *Memory*, 16(5), 538-547.
doi:10.1080/09658210802010463
- Davis, M. D. (1985). The logic of causal order. In J. L. Sullivan and R. G. Niemi (Eds.), *Sage university paper series on quantitative applications in the social sciences*. Beverly Hills, CA: Sage Publications.
- DeCoster, J. (2005). Scale construction notes. Retrieved October 5, 2018, from <http://www.stat-help.com/notes.html>
- Dobratz, M. C. (2004). The Life Closure Scale: Additional psychometric testing of a tool to measure psychological adaptation in death and dying. *Research in Nursing and Health*, 27(1), 52-62.
doi:10.1002/nur.20003

- Dudukovic, N. M., Marsh, E. J., & Tversky, B. (2004). Telling a story or telling it straight: The effects of entertaining versus accurate retellings on memory. *Applied Cognitive Psychology, 18*(2), 125-143. doi: 10.1002/acp.953
- Duval, T. S., Silvia, P. J., & Lalwani, N. (2001). *Self-awareness and causal attributions: A dual systems theory*. Boston, MA: Kluwer.
- Eads, M. L. (2008). *A man's feelings: Finding closure after divorce*. Seattle, WA: Red San Publishing.
- Eibach, R. P., Libby, L. K., & Gilovich, T. D. (2003). When change in the self is mistaken for change in the world. *Journal of Personality and Social Psychology, 84*(5), 917-931. doi:10.1037/0022-3514.84.5.917
- Eich, E., Handy, T. C., Holmes, E. A., Lerner, J., & McIsaac, H. K. (2012). Field and observer perspectives in autobiographical memory. In J. P. Forgas, K. Fiedler, & C. Sedikides (Eds.), *Social thinking and interpersonal behaviour* (pp. 163–181). New York: Taylor and Francis.
- Elder, J., & Zucker, S. (1993). The effect of contour closure on the rapid discrimination of two-dimensional shapes. *Vision Research, 33*(7), 981-991. doi:10.1016/0042-6989(93)90080-G
- Fergusson, P. (1993). *Writing about traumatic events using the third person pronoun: Psychological and health effects*. Unpublished doctoral dissertation. Ontario, Canada: University of Waterloo.
- Flannery, R. B. (1999). Psychological trauma and posttraumatic stress disorder: A review. *International Journal of Emergency Mental Health, 1*(2), 135-140.
- Fink, G. R., Markowitsch, H. J., Reinkemeier, M., Bruckbauer, T., Kessler, J., & Heiss, W.-D. (1996). Cerebral representation of one's own past: Neural networks involved in autobiographical memory. *The Journal of Neuroscience, 16*(13), 4275-4282. doi: 10.1523/JNEUROSCI.16-13-04275.1996

- Finnbogadóttir, H., & Berntsen, D. (2014). Looking at life from different angles: Observer perspective during remembering and imagining distinct emotional events. *Psychology of Consciousness: Theory, Research, and Practice*, 1 (4), 387-406. doi: 10.1037/cns0000029
- Fiske, S. T., & Taylor, S. E. (1991). *McGraw-Hill series in social psychology: Social cognition*. New York, NY: McGraw-Hill Book Company.
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, 99(1), 20-35. doi:10.1037/0033-2909.99.1.20
- Foster, J. L., Michael, R. B., & Garry, M. (2014). *Turkitron: Subject pool management for Amazon's Mechanical Turk*. Manuscript in preparation.
- Frank, M. G., & Gilovich, T. (1989). Effect of memory perspective on retrospective causal attributions. *Journal of Personality and Social Psychology*, 57(3), 399-403.
doi:10.1037/0022-3514.57.3.399
- Frattaroli, J. (2006). Experimental disclosure and its moderators: a meta-analysis. *Psychological bulletin*, 132(6), 823. doi: 10.1037/0033-2909.132.6.823
- Freud, S. (1894/1962) The neuro-psychoses of defence, trans. J. Rickman. In J. Strachey (Ed.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 3, pp. 41-61). London, England: Hogarth Press.
- Freud, S. (1896/1962) Further remarks on the neuro psychoses of defence, trans. J. Rickman. In J. Strachey (Ed.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 3, pp. 157-185). London, England: Hogarth Press.
- Freud, S. (1899/1962) Screen memories. In J. Strachey (Ed.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 3, pp. 299-322). London, England: Hogarth Press.

- Freud, S. (1907/1960). Childhood memories and screen memories. In J. Strachey (Ed.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 6, pp. 43–52). London, England: Hogarth Press.
- Frijda, N. H., Kuipers, P., & ter Schure, E. (1989). Relations among emotion, appraisal, and emotional action readiness. *Journal of Personality and Social Psychology*, *57*(2), 212-228. doi:10.1037/0022-3514.57.2.212
- Fujita, K., Henderson, M. D., Eng, J., Trope, Y., & Liberman, N. (2006). Spatial distance and mental construal of social events. *Psychological Science*, *17*(4), 278-282. doi: 10.1111/j.1467-9280.2006.01698.x
- Galton, F. (1883). *Inquiries into human faculty*. London, England: MacMillan.
- Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation, and emotional problems. *Personality and Individual Differences*, *30*(8), 1311-1327. doi:10.1016/S0191-8869(00)000113-6
- Giovanetti, A. K., Revord, J. C., Sasso, M. P., & Haefel, G. J. (2019). Self-distancing may be harmful: Third-person writing increases levels of depressive symptoms compared to traditional expressive writing and no writing. *Journal of Social and Clinical Psychology*, *38*(1), 50-69. doi: 10.1521/jscp.2019.38.1.50
- Gold, S. N., & Faust, J. (2002). *Trauma practice in the wake of September 11, 2001*. New York, NY: Haworth Press.
- Graybeal, A., Sexton, J. D., & Pennebaker, J. W. (2002). The role of story-making in disclosure writing: The psychometrics of narrative. *Psychology & Health*, *17*(5), 571-581. doi:10.1080/08870440290025786
- Greenberg, L. S. (2011). *Emotion-focused therapy*. Washington, DC: American Psychological Association.


- Greenberg, L. S. (2015). *Emotion-focused therapy: Coaching clients to work through their feelings* (2nd ed.). Washington, DC, US: American Psychological Association.
- Greenberg, L. S., & Angus, L. (2004). The contributions of emotion processes to narrative change in psychotherapy: A dialectical constructivist approach. In L. E. Angus & J. McLeod (Eds.), *Handbook of narrative and psychotherapy: Practice, theory and research* (pp. 331-351). London, England: SAGE Publications.
- Grieger, R.M. (1985). From a linear to a contextual model of the ABCs of RET. *Journal of Rational-Emotive Therapy*, 3(2), 75–99. doi:10.1007/BF01075206
- Grossmann, I., & Kross, E. (2010). The impact of culture on adaptive versus maladaptive self-reflection. *Psychological Science*, 21(8), 1150-1157. doi:10.1177/0956797610376655
- Grossmann, I., & Kross, E. (2014). Exploring Solomon’s paradox: Self-distancing eliminates the self-other asymmetry in wise reasoning about close relationships in younger and older adults. *Psychological Science*, 25(8), 1571-1580. doi:10.1177/0956797614535400
- Gruber, J., Eidelman, P., Johnson, S. L., Smith, B., & Harvey, A. G. (2011). Hooked on a feeling: rumination about positive and negative emotion in inter-episode bipolar disorder. *Journal of Abnormal Psychology*, 120(4), 956-961. doi:10.1037/a0023667
- Gu, Y., Botti, S., & Faro, D. (2013). Turning the page: The impact of choice closure on satisfaction. *Journal of Consumer Research*, 40(2), 268-283. doi:10.1086/670252
- Gu, X., & Tse, C. S. (2016). Narrative perspective shift at retrieval: The psychological-distance-mediated-effect on emotional intensity of positive and negative autobiographical memory. *Consciousness and Cognition*, 45, 159-173. doi:10.1016/j.concog.2016.09.001
- Guadagnoli, E., & Velicer, W. F. (1988). Relation to sample size to the stability of component patterns. *Psychological Bulletin*, 103(2), 265-275. doi:10.1037/0033-2909.103.2.265

- Hamber, B. & Wilson, R. A. (2002). Symbolic closure through memory, reparation and revenge in post-conflict societies. *Journal of Human Rights, 1*(1), 35-53.
doi:10.1080/14754830110111553
- Harnish, J. D., Aseltine, R. H., Jr., & Gore, S. (2000). Resolution of stressful experiences as an indicator of coping effectiveness in young adults: An event history analysis. *Journal of Health and Social Behavior, 41*(2), 121-136. doi:10.2307/2676301
- Harvey, R. J., Billings, R. S. & Nilan, K. J. (1985). Confirmatory factor analysis of the job diagnostic survey: Good news and bad news. *Journal of Applied Psychology, 70*, 461-468. doi: 10.1037/0021-9010.70.3.461
- Hassabis, D., & Maguire, E. A. (2007). Deconstructing episodic memory with construction. *Trends in Cognitive Sciences, 11*(7), 299-306. doi:10.1016/j.tics.2007.05.001
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Hayes, A. F., & Preacher, K. J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology, 67*(3), 451-470. doi: 10.1111/bmsp.12028
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. New York, NY: Guilford Press.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2012). *Acceptance and commitment therapy: The process and practice of mindful change*. New York, NY: Guilford Press.
- Henri, V., & Henri, C. (1897). An investigation of early childhood. *L'Anne'e Psychologique, 3*(1), 184-198. doi: 10.3406/psy.1896.1831

- Hogg, M. A. (2000). Subjective uncertainty reduction through self-categorization: A motivational theory of social identity processes. *European Review of Social Psychology, 11*(1), 223-255
doi:10.1080/14792772043000040
- Holm, S. (1979). A simple sequentially rejective multiple test procedure. *Scandinavian Journal of Statistics, 6*(2), 65-70.
- Holmes, D. S. (1970). Differential change in affective intensity and the forgetting of unpleasant personal experiences. *Journal of Personality and Social Psychology, 15*(3), 234.
doi:10.1037/h0029394
- Holmes, E. A., & Mathews, A. (2010). Mental imagery in emotion and emotional disorders. *Clinical Psychology Review, 30*(3), 349-362. doi:10.1016/j.cpr.2010.01.001
- Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika, 30*(2), 179-185. doi:10.1007/BF02289447
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1-55. doi:10.1080/10705519909540118
- Hurley, A. E., Scandura, T. A., Schriesheim, C. A., Brannick, M. T., Seers, A., Vandenberg, R. J., & Williams, L. J. (1997). Exploratory and confirmatory factor analysis: Guidelines, issues, and alternatives. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 18*(6), 667-683.
- Ingram, R. E., & Hollon, S. D. (1986). Cognitive therapy for depression from an information processing perspective. In R. E. Ingram (Ed.), *Personality, psychopathology, and psychotherapy series. Information processing approaches to clinical psychology* (pp. 259-281). San Diego, CA: Academic Press.
- Izard, C. E. (1991). *The psychology of emotions*. New York: Plenum Press.

- Jackson, D. L., Gillaspay Jr, J. A., & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: An overview and some recommendations. *Psychological Methods, 14*(1), 6-23. doi: 10.1037/a0014694
- James, W. (1890/1950). *The principles of psychology* (Vol. 1). New York, NY: Dover.
- Janssen, S. M. J., Hearne, T. L., & Takarangi, M. K. T. (2015). The relation between self-reported PTSD and depression symptoms and the psychological distance of positive and negative events. *Journal of Behavior Therapy and Experimental Psychiatry, 48*, 177-184. doi:10.1016/j.jbtep.2015.04.002
- Jarman, M. S. (2014). Quantifying the qualitative: Measuring the insight experience. *Creativity Research Journal, 26*(3), 276-288. doi:10.1080/10400419.2014.929405
- Jarman, M. S. (2016) Scratching mental itches with extreme insights: Empirical evidence for a new theory. *Psychology of Aesthetics, Creativity, and the Arts, 10*(1), 21-31. doi:10.1037/aca0000048
- Jeffries, E. R., McLeish, A. C., Kraemer, K. M., Avallone, K. M., & Fleming, J. B. (2016). The role of distress tolerance in the use of specific emotion regulation strategies. *Behavior Modification, 40*(3), 439-451. doi:10.1177/0145445515619596
- Jin, S. R. (2005). *The dialectical effect of psychological displacement: A narrative analysis*. Taipei, China: National Science Council.
- Jin, S. R. (2010). Structure characteristics of psychological displacement and its dialectical phenomenon: Narratives of the multidimensional self. *Chinese Journal of Guidance and Counseling, 28*, 191–233.
- Johnson, S. F., & Boals, A. (2015). Refining our ability to measure posttraumatic growth. *Psychological Trauma: Theory, Research, Practice, and Policy, 7*(5), 422. doi: 10.1037/tra0000013

- Johnson, M. K., Foley, M. A., Suengas, A. G., & Raye, C. L. (1988). Phenomenal characteristics of memories for perceived and imagined autobiographical events. *Journal of Experimental Psychology: General*, *117*(4), 371-376. doi:10.1037/0096-3445.117.4.371
- Kahneman, D., & Varey, C. (1991). Notes on the psychology of utility. In J. Elster & J. E. Roemer (Eds.), *Studies in rationality and social change. Interpersonal comparisons of well-being* (pp. 127-163). doi:10.1017/CBO9781139172387.006
- Kaiser, H. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, *20*(1), 141-151. doi: 10.1177/001316446002000116
- Kenny, L. M., & Bryant, R. A. (2007). Keeping memories at an arm's length: Vantage point of trauma memories. *Behaviour Research and Therapy*, *45*(8), 1915-1920. doi: 10.1016/j.brat.2006.09.004
- Kenny, L. M., Bryant, R. A., Silove, D., Creamer, M., O'Donnell, M., & McFarlane, A. C. (2009). Distant memories: A prospective study of vantage point of trauma memories. *Psychological Science*, *20*(9), 1049–1052. doi:10.1111/j.1467-9280.2009.02393.x
- Kihlstrom, J. F., & Harackiewicz, J. M. (1982). The earliest recollection: A new survey. *Journal of Personality*, *50*(2), 134-148. doi:10.1111/j.1467-6494.1982.tb01019.x
- King, N. J., Tonge, B. J., Mullen, P., Myerson, N., Heyne, D., Rollings, S., . . . Ollendick, T. H. (2000). Treating sexually abused children with posttraumatic stress symptoms: A randomized clinical trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, *39*(11), 1347-1355. doi:10.1097/00004583-200011000-00008
- Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). New York, NY: Guilford publications.
- Kohut, H. (1977). *The Restoration of the Self* New York: Int

- Kross, E. (2009). When the self becomes other: Toward an integrative understanding of the processes distinguishing adaptive self-reflection from rumination. *Annals of the New York Academy of Sciences*, 1167(1), 22-40. doi:10.1111/j.1749-6632.2009.04545.x
- Kross, E., & Ayduk, Ö. (2008). Facilitating adaptive emotional analysis: Distinguishing distanced-analysis of depressive experiences from immersed-analysis and distraction. *Personality and Social Psychology Bulletin*, 34(7), 924-938. doi:10.1177/0146167208315938
- Kross, E., & Ayduk, Ö. (2010). Analyzing negative experiences without ruminating: The role of self-distancing in enabling adaptive self-reflection. *Social and Personality Psychology Compass*, 4(10), 841–854. doi:10.1111/j.1751-9004.2010.00301.x
- Kross, E. & Ayduk, Ö. (2011). Making meaning out of negative experiences by self-distancing.  *Current Directions in Psychological Science*, 20(4), 187-191. doi:10.1177/0963721411408883
- Kross, E., Ayduk, Ö., & Mischel, W. (2005). When asking “why” does not hurt. Distinguishing rumination from reflective processing of negative emotions. *Psychological Science*, 16(9), 709–715. doi:10.1111/j.1467-9280.2005.01600.x
- Kross, E., Bruehlman-Senecal, E., Park, J., Burson, A., Dougherty, A., Shablack, H., . . . Ayduk, O. (2014). Self-talk as a regulatory mechanism: How you do it matters. *Journal of Personality and Social Psychology*, 106(2), 304-324. doi:10.1037/a0035173
- Kross, E., Gard, D., Deldin, P., Clifton, J., & Ayduk, O. (2012). “Asking why” from a distance: Its cognitive and emotional consequences for people with major depressive disorder. *Journal of Abnormal Psychology*, 121, 559-569. doi:10.1037/a0028808
- Kruglanski, A. W. (2004). *The psychology of closed mindedness*. New York, NY: Psychology Press. doi: 10.4324/9780203506967

- Labov, W., & Fanshel, D. (1977) *Therapeutic discourse: Psychotherapy as conversation*. New York, NY: Academic Press.
- Lawrence, L. (1990). On the theory and application of third person analysis in the practice of psychotherapy. *The Journal of Mind and Behavior*, 97-104.
- Leary, M. R. (2007) Motivational and emotional aspects of the self. *Annual Review of Psychology*, 58(1), 317-344. doi:10.1146/annurev.psych.58.110405.085658
- Legrand, D., & Ruby, P. (2009). What is self-specific? Theoretical investigation and critical review of neuroimaging results. *Psychological Review*, 116(1), 252-282. doi:10.1037/a0014172
- Lemogne, C., Bergouignan, L., Piolino, P., Jouvent, R., Allilaire, J. F., & Fossati, P. (2009). Cognitive avoidance of intrusive memories and autobiographical memory: Specificity, auto-noetic consciousness, and self-perspective. *Memory*, 17(1), 1-7. doi: 10.1080/09658210802438466
- Lewin, K. (1927). Gesetz und Experiment in der Psychologie. *Symposion*.
- Lewin, K. (1951). *Field theory in social science*. Oxford, England: Harpers.
- Li, X., Wei, L., & Soman, D. (2010). Sealing the emotions genie: The effects of physical enclosure on psychological closure. *Psychological Science*, 21(8), 1047-1050. doi:10.1177/0956797610376653
- Libby, L. K., & Eibach, R. P. (2002) Looking back in time: Self-concept change affects visual perspective in autobiographical memory. *Journal of Personality and Social Psychology*, 82(2), 167-179. doi:10.1037//0022-3514.82.2.167
- Libby, L. K., & Eibach, R. P. (2009). Seeing the links between the personal past, present, and future: How imagery perspective in mental simulation functions in defining the temporally extended self. In K. D. Markman, W. M. P. Klein & J. A. Suhr (Eds.), *The handbook of imagination and mental simulation* (pp. 359-372). New York: Psychology Press.

- Libby, L. K., & Eibach, R. P. (2011a). Self-enhancement or self-coherence? Why people shift visual perspective in mental images of the personal past and future. *Personality and Social Psychology Bulletin*, 37(5), 714-726. doi:10.1177/0146167211400207
- Libby, L. K., & Eibach, R. P. (2011b). Visual perspective in mental imagery: A representational tool that functions in judgment, emotion, and self-insight. In M.P. Zanna & J.M. Olson (Eds.), *Advances in experimental social psychology* (pp. 185–245). San Diego: Academic Press. doi:10.1016/B978-0-12-385522-0.00004-4
- Libby, L. K., Eibach, R. P., & Gilovich, T. (2005). Here's looking at me: The effect of memory perspective on assessments of personal change. *Journal of Personality and Social Psychology*, 88(1), 50-62. doi:10.1037/0022-3514.88.1.50
- Libby, L. K., Valenti, G., Pfent, A., & Eibach, R. P. (2011). Seeing failure in your life: Third-person imagery causes self-esteem to shape reactions to recalled and imagined failure. *Journal of Personality and Social Psychology*, 101(6), 1157-1173. doi:10.1037/a0026105
- Lieberman, N., & Trope, Y. (2014). Traversing psychological distance. *Trends in Cognitive Sciences*, 18 (7), 364-369. doi:10.1016?j.tics.2014.03.001
- Linehan, M. M. (2015). *DBT skills training manual*. (2nd ed.). New York, NY: Guilford Press.
- Lovinger, J. (1957). Objective tests as instruments of psychological theory. *Psychological Reports*, 3(7), 635-694. doi:10.2466/PR0.3.7.635-694
- Lyubomirsky, S., Sousa, L., & Dickerhoof, R. (2006). The costs and benefits of writing, talking, and thinking about life's triumphs and defeats. *Journal of Personality and Social Psychology*, 90(4), 692. doi: <http://dx.doi.org/10.1037/0022-3514.90.4.692>
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1(2), 130-149. doi:10.1037/1082-989X.1.2.130

- Makinen, J. A., & Johnson, S. M. (2006). Resolving attachment injuries in couples using emotionally focused therapy: Steps toward forgiveness and reconciliation. *Journal of Consulting and Clinical Psychology, 74*(6), 1055-1064. doi:10.1037/0022-006X.74.6.1055
- Marigold, D. C., Eibach, R. P., Libby, L. K., Ross, M., & Holmes, J. G. (2014). Framing memories of relationship transgressions: How visual imagery perspective activates relational knowledge. *Journal of Social and Personal Relationships, 32*(4), 495-508. doi:10.1177/0265407514536304
- McAdams, D. P. (1997). The case for unity in the (post)modern self: A modest proposal. In R. D. Ashmore & L. J. Jussim (Eds.), *Self and identity: Fundamental issues* (pp. 46-78). New York, NY: Oxford University Press.
- McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology, 5*(2), 100-122. doi:10.1037/1089-2680.5.2.100
- McDonald, R. P., & Ho, M. H. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods, 7*(1), 64. doi:10.1037/1082-989X.7.1.64
- McIsaac, H. K., & Eich, E. (2002). Vantage point in episodic memory. *Psychonomic Bulletin and Review, 9*(1), 146-150. doi:10.3758/BF03196271
- McIsaac, H. K., & Eich, E. (2004). Vantage point in traumatic memory. *Psychological Science, 15*(4), 248-253. doi:10.1111/j.0956-7976.2004.00660.x
- McNamara, P., Benson, E., McGeeney, B., Brown, A., & Albert, M. L. (2005). Modes of remembering in patients with chronic pain: Relation to current pain. *Journal of Nervous and Mental Disease, 193*(1), 53-57. doi:10.1097/01.nmd.0000149219.04841.f5
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. Cambridge, MA: The MIT Press.

- Meichenbaum, D., & Fong, G. T. (1993). How individuals control their own minds: A constructive narrative perspective. In D. M. Wegner & J. W. Pennebaker (Eds.), *Century psychology series. Handbook of mental control* (pp. 473-490). Englewood Cliffs, NJ, US: Prentice-Hall, Inc.
- Meier, A. (2002). Narrative in psychotherapy theory, practice, and research: A critical review. *Counselling & Psychotherapy Research*, 2(4), 239-251. doi:10.1080/14733140212331384725
- Miller, R. B. (1968, December). Response time in man-computer conversational transactions. In *AFIPS Fall Joint Computing Conference (1)* (pp. 267-277). doi:10.1145/1476589.1476628
- Moore, S. A., & Zoellner, L. A. (2007). Overgeneral autobiographical memory and traumatic events: An evaluative review. *Psychological Bulletin*, 133(3), 419-437. doi: 10.1037/0033-2909.133.3.419
- Nigro, G., & Neisser, U. (1983). Point of view in personal memories. *Cognitive Psychology*, 15(4), 467-482. doi:10.1016/0010-0285(83)90016-6
- Nolen-Hoeksema, S. (2000). The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. *Journal of Abnormal Psychology*, 109(3), 504-511. doi:10.1037/0021-843X.109.3.504
- Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science*, 3(5), 400-424. doi:10.1111/j.1745-6924.2008.00088.x
- Nussbaum, E. (2013, September). The closure-happy “Breaking Bad” finale. *The New Yorker*. Retrieved from <http://newyorker.com>
- Onraet, E., Van Hiel, A., Roets, A., & Cornelis, I. (2011). The closed mind: 'Experience' and 'cognition' aspects of openness to experience and need for closure as psychological bases for right-wing attitudes. *European Journal of Personality*, 25(3), 184-197. doi:10.1002/per.775

- Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology*, 45(4), 867–872. doi:10.1016/j.jesp.2009.03.009
- Paivio, S. C., & Pascual-Leone, A. (2010). *Emotion-focused therapy for complex trauma: An integrative approach*. American Psychological Association.
- Pals, J. L. (2006). Narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood. *Journal of Personality*, 74(4), 1079-1110. doi:10.1111/j.1467-6494.2006.00403.x
- Paolacci, G., & Chandler, J. (2014). Inside the Turk: Understanding Mechanical Turk as a participant pool. *Current Directions in Psychological Science*, 23(3), 184-188.
doi:10.1177/0963721414531598
- Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, 136(2), 257.
doi:10.1037/a0018301
- Park, J., Ayduk, Ö., & Kross, E. (2016). Stepping back to move forward: Expressive writing promotes self-distancing. *Emotion*, 16(3), 349-364. doi:10.1037/emo0000121
- Pascual-Leone, A., Yeryomenko, N., Morrison, O. P., Arnold, R., & Kramer, U. (2016). Does feeling bad, lead to feeling good? Arousal patterns during expressive writing. *Review of General Psychology*, 20(3), 336-347. doi:10.1037/gpr0000083
- Pasupathi, M. (2007). Telling and the remembered self: Linguistic differences in memories for previously disclosed and previously undisclosed events. *Memory*, 15(3), 258-270. doi:
<https://doi.org/10.1080/09658210701256456>
- Pennebaker, J. W. (1997). *Opening up: The healing power of expressing emotions*. New York, NY: Guilford Press.

- Pennebaker, J. W., & Chung, C. K. (2007). Expressive Writing, Emotional Upheavals, and Health. In H. S. Friedman & R. C. Silver (Eds.), *Foundations of health psychology* (pp. 263-284). New York: Oxford University Press.
- Pennebaker, J. W., & Chung, C. K. (2011). Expressive writing: Connections to physical and mental health. In H. S. Friedman (Ed.), *Oxford library of psychology. The Oxford handbook of health psychology* (pp. 417-437). New York: Oxford University Press.
- Pennebaker, J. W., & Francis, M. E. (1996). Cognitive, emotional, and language processes in disclosure. *Cognition and Emotion, 10*(6), 601-626. doi:
<https://doi.org/10.1080/026999396380079>
- Pennebaker, J. W., & Seagal, J. D. (1999). Forming a story: The health benefits of narrative. *Journal of Clinical Psychology, 55*(10), 1243-1254. doi:10.1002/(SICI)1097-4679(199910)55:10<1243::AID-JCLP6>3.0.CO;2-N
- Pillemer, D. B. (1998). *Momentous events, vivid memories*. Cambridge, MA: Harvard University Press.
- Pillemer, D. B., Desrochers, A. B., & Ebanks, C. M. (1998). Remembering the past in the present: Verb tense shifts in autobiographical memory narratives. In C. P. Thompson, D. J. Herrmann, D. Bruce, J. D. Read, D. G. Payne, & M. P. Toglia (Eds.), *Autobiographical memory: Theoretical and applied perspectives* (pp. 145-162). Mahwah, NJ: Lawrence Erlbaum Associates.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903. doi: 10.1037/0021-9010.88.5.879
- Premack, D., & Woodruff, G. (1978). Does the chimpanzee have a theory of mind?. *Behavioral and Brain Sciences, 1*(4), 515-526. doi: 10.1017/S0140525X00076512

- Rachman, S. (1980). Emotional processing. *Behaviour Research and Therapy*, 18(1), 51-60.
doi:10.1016/0005-7967(80)90069-8
- Resick, P. A., Galovski, T. E., Uhlmansiek, M. O. B., Scher, C. D., Clum, G. A., & Young-Xu, Y. (2008). A randomized clinical trial to dismantle components of cognitive processing therapy for posttraumatic stress disorder in female victims of interpersonal violence. *Journal of Consulting and Clinical Psychology*, 76(2), 243. doi:10.1037/0022-006x.76.2.243
- Resick, P. A., Monson, C. M., Chard, K. M. (2007). *Cognitive processing therapy treatment manual: Veteran/military version*. Boston: Veterans Administration.
- Reyna, V. F., & Brainerd, C. J. (1995). Fuzzy-trace theory: An interim synthesis. *Learning and Individual Differences*, 7(1), 1-75. doi:10.1016/1041-6080(95)90031-4
- Reynolds, K. J., & Turner, J. C. (2006). Individuality and the prejudiced personality. *European Review of Social Psychology*, 17(1), 233-270. doi:10.1080/10463280601050880
- Rice, H. J. (2010). Seeing where we're at: A review of visual perspective and memory retrieval. In J. H. Mace (Ed.), *The act of remembering: Toward an understanding of how we recall the past* (pp. 228–258). New York: Wiley-Blackwell.
- Rim, S., Trope, Y., Liberman, N., & Shapira, O. (2013). The highs and lows of mental representation: A construal level perspective on the structure of knowledge. In D. E. Carlston (Ed.), *Oxford library of psychology. The Oxford handbook of social cognition* (pp. 194-219). New York: Oxford University Press.
- Robinson, J. A. (1996). *Perspective, meaning, and remembering*. In D. C. Rubin (Ed.), *Remembering our past: Studies in autobiographical memory* (pp. 199–217). Cambridge, England: Cambridge University Press.

- Robinson, M. D., & Clore, G. L. (2002). Episodic and semantic knowledge in emotional self-report: Evidence for two judgment processes. *Journal of Personality and Social Psychology*, 83(1), 198-215. doi:10.1037/0022-3514.83.1.198
- Robinson, J. A., & Swanson, K. L. (1993). Field and observer modes of remembering. *Memory*, 1(3), 169-184. doi:10.1080/09658219308258230
- Roets, A., & Van Hiel, A. (2007). Separating ability from need: Clarifying the dimensional structure of the need for closure scale. *Personality and Social Psychology Bulletin*, 33(2), 266-280. doi:10.1177/0146167206294744
- Roets, A., & Van Hiel, A. (2011). Item selection and validation of a brief, 15-item version of the Need for Closure Scale. *Personality and Individual Differences*, 50(1), 90-94. doi:10.1016/j.paid.2010.09.004
- Ross, M., & Wilson, A. E. (2002). It feels like yesterday: Self-esteem, valence of personal past experiences, and judgments of subjective distance. *Journal of Personality and Social Psychology*, 82(5), 792-803. doi:10.1037//0022-3514.82.5.792
- Rubin, D. C., Schrauf, R. W., & Greenberg, D. L. (2003). Belief and recollection of autobiographical memories. *Memory and Cognition*, 31, 887-901. doi:10.3758/BF03196443
- Rubin, D. C., & Umanath, S. (2015). Event memory: A theory of memory for laboratory, autobiographical, and fictional events. *Psychological Review*, 122(1), 1-23. doi:10.1037/a0037907
- Rude, S. S., Gortner, E.-M., & Pennebaker, J. W. (2004). Language use of depressed and depression-vulnerable college students. *Cognition and Emotion*, 18(8), 1121-1133. doi:10.1080/02699930441000030
- Rummel, R. J. (1970). *Applied factor analysis*. New York, NY: Routledge.

- Rusticus, S. A., & Lovato, C. Y. (2014). Impact of sample size and variability on the power and type I error rates of equivalence tests: A simulation study. *Practical Assessment, Research & Evaluation, 19*(11), 1-10.
- Safran, J. D., & Segal, Z. V. (1990). *Interpersonal process in cognitive therapy*. Lanham, MD: Jason Aronson.
- Sanitioso, R. B. (2008). Motivated self and recall: Visual perspectives in remembering past behaviors. *European Journal of Social Psychology, 38*(3), 566–575. doi:10.1002/ejsp.456
- Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika, 66*(4), 507-514.
- Savitsky, K., Medvec, V. H., & Gilovich, T. (1997). Remembering and regretting: The Zeigarnik effect and the cognitive availability of regrettable actions and inactions. *Personality and Social Psychology Bulletin, 23*(3), 248-257. doi:10.1177/0146167297233004
- Schmitt, N.W. & Stults, D.M. (1985). Factors defined by negatively keyed items: The results of careless respondents? *Applied Psychological Measurement, 9*(4), 367-373. doi: 10.1177/014662168500900405
- Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of educational research, 99*(6), 323-338. doi: 10.3200/JOER.99.6.323-338
- Schwartz, G. E., Weinberger, D. A., & Singer, J. A. (1981). Cardiovascular differentiation of happiness, sadness, anger, and fear following imagery and exercise. *Psychosomatic Medicine, 43*(4), 343-364. doi:10.1097/00006842-198108000-00007
- Scoboria, A., Jackson, D., Talarico, J., Hanczakowski, M., Wysman, L., & Mazzoni, G. (2014). The role of belief in occurrence within autobiographical memory. *Journal of Experimental Psychology: General, 143*(3), 1242-1258. doi:10.1037/a0034110

- Sedikides, C., & Gregg, A. P. (2003). Portraits of the self. In M. A. Hogg & J. Cooper (Eds.), *The Sage handbook of social psychology* (pp. 110-138). London, England: Sage.
- Seih, Y.-T., Chung, C. K., & Pennebaker, J. W. (2011). Experimental manipulations of perspective taking and perspective switching in expressive writing. *Cognition and Emotion, 25*(5), 926-938. doi:10.1080/02699931.2010.512123
- Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of Clinical Psychology, 62*(3), 373-386. doi:10.1002/jclp.20237
- Siedlecki, K. L. (2015). Visual perspective in autobiographical memories: Reliability, consistency, and relationship to objective memory performance. *Memory, 23*(2), 306-316. doi:10.1080/09658211.2014.885054
- Singer, J. A., & Salovey, P. (1993). *The remembered self: Emotion and memory in personality*. New York, NY: Free Press.
- Singh, M. (1994). *Validation of a measure of session outcome in the resolution of unfinished business* (Unpublished doctoral dissertation). York University, Toronto, Ontario.
- Skitka, L. J., Bauman, C. W., & Mullen, E. (2004). Political tolerance and coming to psychological closure following the September 11, 2001, terrorist attacks: An integrative approach. *Personality and Social Psychology Bulletin, 30*(6), 743-756. doi:10.1177/0146167204263968
- Skowronski, J. J., Gibbons, J. A., Vogl, R. J., & Walker, W. R. (2004). The effects of social disclosure on the affective intensity provoked by autobiographical memories. *Self and Identity, 3*(4), 285–309. doi: 10.1080/13576500444000065
- Smith, E. R. (1998). Mental representation and memory. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 391– 445). New York, NY: McGraw-Hill.

- Smyth, J. M. (1998). Written emotional expression: Effect sizes, outcome types, and moderating variables. *Journal of Consulting and Clinical Psychology, 66*(1), 174-184. doi:10.1037/0022-006X.66.1.174
- Sonnemans, J., & Frijda, N. H. (1995). The determinants of subjective emotional intensity. *Cognition and Emotion, 9*(5), 483-506. doi:10.1080/02699939508408977
- Spearman, Charles, C. (1910). Correlation calculated from faulty data. *British Journal of Psychology, 3*, 271–295.
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research, 25*(2), 173-180. doi: 10.1207/s15327906mbr2502_4
- Stroebe, M. S. (1992). Coping with bereavement: A review of the grief work hypothesis. *Omega: Journal of Death and Dying, 26*(1), 19-42. doi:10.2190/TB6U-4QQC-HR3M-V9FT
- Suddendorf, T., & Corballis, M. C. (1997). Mental time travel and the evolution of the human mind. *Genetic, Social, and General Psychology Monographs, 123*(2), 133-167.
- Sumner, J. A., Griffith, J. W., & Mineka, S. (2010). Overgeneral autobiographical memory as a predictor of the course of depression: A meta-analysis. *Behaviour research and therapy, 48*(7), 614-625. doi: 10.1016/j.brat.2010.03.013
- Sutin, A. R., & Robins, R. W. (2008). When the “I” Looks at the “Me”: Autobiographical Memory, Visual Perspective, and the Self. *Consciousness and Cognition, 17*(4), 1386–1397. doi:10.1016/j.concog.2008.09.001
- Sutin, A. R., & Robins, R. W. (2010). Correlates and phenomenology of first and third person memories. *Memory, 18*(6), 625-637. doi: 10.1080/09658211.2010.497765

- Svob, C., Brown, N. R., Reddon, J. R., Uzer, T., & Lee, P. J. (2013). The transitional impact scale: Assessing the material and psychological impact of life transitions. *Behavioural Research Methods, 46*(2), 448-455. doi:10.3758/s13428-013-0378-2
- Swann, W. B., Griffin, J. J., Predmore, S. C., & Gaines, B. (1987). The cognitive–affective crossfire: When self-consistency confronts self-enhancement. *Journal of Personality and Social Psychology, 52*(5), 881-889. doi:10.1037/0022-3514.52.5.881
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Allyn and Bacon.
- Talarico, J. M., LaBar, K. S., & Rubin, D. C. (2004). Emotional intensity predicts autobiographical memory experience. *Memory and Cognition, 32*(7), 1118-1132. doi:10.3758/BF03196886
- Teasdale, J. D., Moore, R. G., Hayhurst, H., Pope, M., Williams, S., & Segal, Z. V. (2002). Metacognitive awareness and prevention of relapse in depression: Empirical evidence. *Journal of Consulting and Clinical Psychology, 70*(2), 275-287. doi:10.1037/0022-006X.70.2.275
- Terry, W. S., & Barwick, E. C. (1995). Observer versus field memories in repressive, low anxious, and obsessive-compulsive subjects. *Imagination, Cognition and Personality, 15*, 159–169.
- Terry, W. S., & Barwick, E. C. (1998) Observing-self in memories of obsessive-compulsives. *Imagination, Cognition and Personality, 18*(1), 59-67. doi:10.2190/2V0G-B1NA-JRNX-7GNR
- Tobin, S. J., & Raymundo, M. M. (2010). Causal uncertainty and psychological well-being: The moderating role of accommodation (secondary control). *Personality and Social Psychology Bulletin, 36*(3), 371-383. doi:10.1177/0146167209359701

- Tracy, J. L., & Robins, R. W. (2007). Self-conscious emotions: Where self and emotion meet. In C. Sedikides & S. J. Spencer (Eds.), *Frontiers of social psychology. The self* (pp. 187-209). New York: Psychology Press.
- Trapnell, P. D., & Campbell, J. D. (1999). Private self-consciousness and the five-factor model of personality: distinguishing rumination from reflection. *Journal of personality and social psychology*, *76*(2), 284-304.
- Treynor, W., Gonzalez, R., & Nolen-Hoeksema, S. (2003). Rumination reconsidered: A psychometric analysis. *Cognitive Therapy and Research*, *27*(3), 247-259. doi: 10.1023/A:1023910315561
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, *110*(3), 403-421. doi:10.1037/0033-295X.110.3.403
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, *117*(2), 440. doi:10.1037/a0018963
- Tulving, E. (1985). Memory and consciousness. *Canadian Psychology/Psychologie Canadienne*, *26*(1), 1-12. doi:10.1037/h0080017
- Turner, R. J., & Avison, W. R. (1992). Innovations in the measurement of life stress: Crisis theory and the significance of event resolution. *Journal of Health and Social Behavior*, *33*(1), 36-50. doi:10.2307/2136856
- Tversky, B., & Marsh, E. J. (2000). Biased retellings of events yield biased memories. *Cognitive Psychology*, *40*(1), 1-38. doi: 10.1006/cogp.1999.0720
- Tzelgov, J., & Henik, A. (1991). Suppression situations in psychological research: Definitions, implications, and applications. *Psychological Bulletin*, *109*, 524-536.
- Unkelbach, C. (2006). The learned interpretation of cognitive fluency. *Psychological Science*, *17*(4), 339-345. doi:10.1111/j.1467-9280.2006.01708.x

- Vallacher, R. R., & Wegner, D. M. (1985). *A theory of action identification*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Van Boven, L., Kane, J., McGraw, A. P., & Dale, J. (2010). Feeling close: Emotional intensity reduces perceived psychological distance. *Journal of Personality and Social Psychology*, *98*(6), 872-885. doi:10.1037/a0019262
- VandenBos, G. R., & American Psychological Association Staff (2015). *APA concise dictionary of psychology*. Washington, DC: American Psychological Association.
- Velicer, W. (1976). Determining the number of components from the matrix of partial correlations. *Psychometrika*, *41*(3), 321–327. doi.org/10.1007/BF02293557
- Verduyn, P., Van Mechelen, I., Kross, E., Chezzi, C., & Van Bever, F. (2012). The relationship between self-distancing and the duration of negative and positive emotional experiences in daily life. *Emotion*, *12*(6), 1248-1263. doi:10.1037/a0028289
- Vinitzky-Seroussi, V. (1998). *After pomp and circumstance: High school reunion as an autobiographical occasion*. Chicago, IL: University of Chicago Press.
- Walker, W. R., Skowronski, J. J., & Thompson, C. P. (2003). Life is pleasant—and memory helps to keep it that way!. *Review of General Psychology*, *7*(2), 203-210. doi: 10.1037/1089-2680.7.2.203
- Walker, W. R., Vogl, R. J., & Thompson, C. P. (1997). Autobiographical memory: Unpleasantness fades faster than pleasantness over time. *Applied Cognitive Psychology*, *11*, 399-413. doi:10.1002/(SICI)1099-0720(199710)11:53.0.CO;2-E
- Watkins, E. R. (2008). Constructive and unconstructive repetitive thought. *Psychological Bulletin*, *134*(2), 163-206. doi:10.1037/0033-2909.134.2.163

- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063-1070. doi:10.1037/0022-3514.54.6.1063
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology, 67*(6), 1049-1062. doi:10.1037/0022-3514.67.6.1049
- Wells, A. (2000). *Emotional disorders and metacognition: Innovative cognitive therapy*. Chichester, UK: Wiley.
- Wells, A. (2005) Detached mindfulness in cognitive therapy: A metacognitive analysis and ten techniques. *Journal of Rational-Emotive and Cognitive-Behavior Therapy, 23*(4), 337-355. doi:10.1007/s10942-005-0018-6
- Wheeler, M. A., Stuss, D. T., & Tulving, E. (1997). Toward a theory of episodic memory: The frontal lobes and autonoetic consciousness. *Psychological Bulletin, 121*(3), 331-354. doi:10.1037/0033-2909.121.3.331
- White, B. W. (1954). Visual and auditory closure. *Journal of Experimental Psychology, 48*(4), 234-240. doi:10.1037/h0053738
- Wickens, T. D., & Keppel, G. (2004). *Design and analysis: A researcher's handbook*. Pearson Prentice-Hall.
- Williams, J. M. G. (1996). Depression and the specificity of autobiographical memory. In D. C. Rubin (Ed.), *Remembering our past: Studies in autobiographical memory* (pp. 244-267). Cambridge, England: Cambridge University Press.
- Williams, J. M., & Broadbent, K. (1986). Autobiographical memory in suicide attempters. *Journal of Abnormal Psychology, 95*(2), 144-149. doi: 10.1037/0021-843X.95.2.144

- Williams, A. D., & Moulds, M. L. (2007). Cognitive avoidance of intrusive memories: Recall vantage perspective and associations with depression. *Behaviour Research and Therapy*, 45(6), 1141-1153. doi:10.1016/j.brat.2006.09.005
- Wilson, T. D. (2002). *Strangers to ourselves: Discovering the adaptive unconscious*. Cambridge, MA: Harvard University Press.
- Wilson, T. D., Centerbar, D. B., Kermer, D. A., & Gilbert, D. T. (2005). The pleasures of uncertainty: Prolonging positive moods in ways people do not anticipate. *Journal of Personality and Social Psychology*, 88(1), 5-21. doi:10.1037/0022-3514.88.1.5
- Wilson, T. D., & Gilbert, D. T. (2008). Explaining Away: A model of effective adaptation. *Perspectives on Psychological Science*, 3, 370-386. doi:10.1111/j.1745-6924.2008.00085.x
- Wilson, A. E., & Ross, M. (2001). From chump to champ: people's appraisals of their earlier and present selves. *Journal of Personality and Social Psychology*, 80, 572. doi:10.1037//0022-3514.80.4.572
- Wilson, A. E., & Ross, M. (2003). The identity function of autobiographical memory: Time is on our side. *Memory*, 11(2), 137-149. doi:10.1080/741938210
- Wood, C., & Conway, M. (2006) Subjective impact, meaning making and current and recalled emotions for self-defining memories. *Journal of Personality*, 74 (3), 811-845. doi:10.1111/j.1467-6494.2006.00393.x
- Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. *Journal of Consulting and Clinical Psychology*, 57(3), 349-357. doi:10.1037/0022-006X.57.3.349
- Wright, M. O'D., Crawford, E., & Sebastian, K. (2007). Positive resolution of childhood sexual abuse experiences: The role of coping, benefit-finding and meaning-making. *Journal of Family Violence*, 22(7), 597-608. doi:10.1007/s10896-007-9111-1

Yong, A., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology*, 9(2), 79-94.

doi:10.20982/tqmp.09.2.p079

Zeigarnik, B. (1935). On finished and unfinished tasks. In K. Lewin (Ed.), *A dynamic theory of personality* (pp. 300-314). New York, NY: McGraw-Hill.

APPENDICES

Appendix A

Nomenclature

Imagery perspective: The vantage point used to envision events. A first-person (field) perspective entails mentally “seeing” an event from one’s own vantage point, whereas a third-person (observer) perspective involves visualizing the event from the vantage point of an observer so that one can mentally see themselves as well as their surroundings (Nigro & Neisser, 1983).

Narrative perspective: In the current studies, the matched combination of imagery perspective pronoun use in narrative accounts. A first-person narrative perspective involves both first-person imagery and use of the first-person pronoun, ‘I’, whereas a third-person narrative perspective involves both third-person imagery and use of a third-person pronoun, ‘She’, ‘He’, or ‘They.’

Shift-to-first: The switch from using a third-person narrative perspective to a first-person narrative perspective in narrative accounts.

Shift-to-third: The switch from using a first-person narrative perspective to a third-person narrative perspective in narrative accounts.

Self-consistency/change: An assessment of oneself or aspects of one’s personality as having changed versus remaining stable over a specified period of time.

Mental focus: The two levels of mental construal emphasizing different elements of personal experiences upon retrieval: the concrete details (experience focus) versus broader life significance (coherence focus; Libby & Eibach, 2009, 2011a).

Experience focus: A focus on what it was like to experience an event directly as if one is actually there again, noting specific sensorial and contextual details (e.g., the location, specific actions, sights, sounds, smells, objects involved; Libby & Eibach, 2009, 2011a).

Coherence focus: A focus on the broader significance of an event, noting how it relates to personal characteristics and other life events (e.g., previous experiences, accomplishments, relationships, the future, one’s life as a whole and self as a person; Libby & Eibach, 2009, 2011a).

Psychological distance: The dynamic intersection of multiple dimensions along which a subjective sense of remoteness can be created in mental simulation. Anchors of distance can be classed along

features contained within the mental representation, the mental representation as a whole across time, in relation to the current self or experience, or in terms of objective, subjective, or hypothetical mental representations.

Construal level: The way in which people mentally represent information in terms of concreteness or abstractness (Trope & Liberman, 2003, 2010).

Methods of construal: Changes in aspects of the retrieval context that serve to alter construal levels and/or psychological distance (e.g., narrative perspective, self-consistency priming, and mental focus).

Adaptive: The ability to adjust and function well in response to changes in cognitions, emotions, and/or social environment. Such responses are productive for the individual and are associated with psychological health (<http://psychologydictionary.org/>).

Maladaptive: The inability to adjust and function well in response to changes in cognitions, emotions, and/or social environment. Such responses are counterproductive to the individual and are associated with psychological dysfunction (<http://psychologydictionary.org/>).

Appendix B

Original Item Pool

Instructions: Carefully consider the event you have selected and rate the degree to which the following statements are true of your experience of your event *right now in this moment*. The scale ranges from 1 (*completely disagree*) to 7 (*completely agree*). If your experience falls somewhere between complete disagreement and agreement, indicate this by choosing a value between 1 and 7 that most reflects your current experience.

Explicit closure/ Completeness	1. (closure) I have complete closure on this event* 2. (peace) I have made peace with this event 3. (settled) This event feels settled or put to rest 4. (moved on) I have moved on from this event 5. (closed book) The event is like a ‘closed book’ to me* 6. (finished) The event is ‘unfinished business’ for me (R)*
Coherence/ Connectedness	7. (event coherence) The pieces of the event fit together like a complete story with a beginning, middle, and end 8. (event coherence) This event comes to my mind as disconnected scenes, facts, or experiences (R) 9. (part of larger story) This event is part of a meaningful story for me 10. (life story) This event is meaningfully connected to other events in my past, present, and future
Event Understanding	11. (conclusion) I have reached a meaningful conclusion about this event 12. (clear understanding) I have a clear understanding of the event* 13. (lack of confusion) I am confused about this event (R) 14. (answered questions) I have unanswered questions about this event (R) 15. (understand what) I can make clear sense of what happened 16. (understand why) I just wish I could figure out why the event happened (R)*
Self-Understanding	17. I can make sense of this event in relation to my identity 18. I can make sense of this event in relation to my life story 19. I have grown a lot from this event 20. This event is part of who I am 21. I understand how this event affected my personal development 22. This event has taught me an important lesson about myself
Less Preoccupation/ Attention	23. (attention) I can now turn my attention to other problems and concerns* 24. (attention) Now I can stop thinking about this event 25. (preoccupation) I am not preoccupied with this event 26. (preoccupation) This event will stay “stuck” in my mind for a long time (R) 27. (mental effort) This event is taking a lot of my mental energy (R) 28. (control) I want to stop thinking about this event but I can’t (R) 29. (control) I feel the need to replay the event over and over in my mind until I solve it
Readiness to Move On/ Reduced Need to Act	30. (readiness) I need more time to completely move on from this event (R) 31. (readiness) I feel ready to move on from this event* 32. (desire to act) I feel the need to do something to resolve this event within myself (R) 33. (desire to act) I feel the need to do something to resolve this event with others (e.g., to make amends or to get revenge) (R)

Experiential Change	34. (different thinking) I now think differently about the event*
	35. (different understanding) I have a new understanding of the event
	36. (different meaning) The meaning this event holds for me has changed
	37. (different relation to event) The way I relate to this event has changed
	38. (different experience) The experience I have when I think about this event has changed
Felt Distance	39. (temporal) This event feels like ancient history*
	40. (temporal) The event feels like it happened a really long time ago
	41. (spatial) I have put this event behind me completely*
	42. (spatial) The event feels far away from me
	43. (self) I no longer identify with the person I was when this event occurred
Memory Characteristics	44. (experience) As I think about the event now, I feel like an outside observer
	45. Thinking about the event now, the details are vivid in my mind
	46. As I think about the event now, I feel like I am re-experiencing it (R)
	47. As I think about the event now, the images that come to my mind are from a perspective as seen through the eyes of an observer
Emotional Activation	48. (intensity) This event arouses strong emotions in me (R)
	49. (intensity) As I think about the event now, my emotions are intense* (R)
	50. (physical/bodily reaction) Thinking about the event now, I have a physical/bodily reaction (R)
	51. (emotional boundary) As I think about the event now, my emotions are close to the surface (R)
	52. (experience) This event feels 'alive' in the present (R)
Negative Reactions	53. (powerlessness) I feel powerless in relation to this event (R)
	54. (restriction) I feel that this event is holding me back from doing things I want to do (R)
	55. (regret) I have regrets about this event (R)
	56. (pressure) I feel pressure to resolve my feelings about this event (R)
	57. (upset) As I think about the event now, I feel upset (e.g., rejected, angry, hurt, sad)* (R)
	58. (distress) This event is an active source of distress for me* (R)
	59. (bothered) I feel bothered, tense, or uneasy as I think about this event (R)
	60. (negative emotions/ general) Thinking about this event now brings up unpleasant emotions (R)
Positive Reactions	61. (release) I feel that I have been released from the emotional grip of this event
	62. (recovery) I have recovered emotionally from this event
	63. (balance) As I think about the event now, I feel emotionally balanced
	64. (relief) I feel relief, satisfaction, or fulfillment as I think about this event
	65. (positive resolution) The ending of the event is more positive than the beginning
	66. (positive resolution) I have come to a positive resolution about this event
	67. (positive emotions/ general) Thinking about this event now arouses pleasant emotions in me

Notes. * denotes item drawn from a previous source (Beike et al., 2007; Beike & Wirth-Beaumont, 2005; Kross et al., 2012; Savitsky et al., 1997; Skitka et al., 2004; Turner & Avison, 1992). (R) denotes reverse scoring.

Appendix C

Validity Check Items (adapted from Oppenheimer et al., 2009)

(Validity check item A) Please check the first box (7 options available).

(Validity check item B) Check the third box (7 options available).

(Validity check item C) Please check the second box (7 options available).

(Validity check item D) Check the last box (7 options available).

Appendix D

Optional Open-Ended Questions Following Studies

(Studies 1 and 2: Unstructured Event Description) If you wish to provide additional information, perhaps about what it was like to experience your event and/or what your event means to you and your life, you may take some time to write about it here.

(Study 3: Unstructured Event Description) Earlier, you were asked to describe or think about your event. If you wish to provide additional information, perhaps about what it was like to experience your event and/or what your event means to you and your life, you may take some time to write about it here.

(Studies 1, 2, and 3: Feedback about the Study) If you wish to leave any comments, questions, or concerns about your experience as a participant in this study, please feel free to do so here. Your feedback is greatly appreciated.

Appendix E

Demographics Questionnaire

(Study 2 and 3: Current Age) What is your current age? _____

(Study 2 and 3: Gender) What is your gender? _____

(Study 2 and 3: Ethnic Background) What is your ethnic background? _____

(Study 2 and 3: Primary Language) What is your primary language (i.e., the one you speak most of the time)? _____

(Study 2: Education) What is the highest level of education you have completed? _____

(Study 3: Academic Major) What is your academic major? _____

(3: Academic Year) What year of study are you in? _____

Appendix F

Study 1 Event Cue Instructions (informed by Beike & Wirth-Beaumont, 2005; Crawley, 2010)

Note. The following event cues were presented in a counterbalanced order across participants.

First Event Cue

Please choose an event from your past that you now think of as [unresolved, meaning it is not settled or behind you vs. resolved, meaning it is settled or behind you]. Choose an event that you were involved in on any day after you turned 18 but *not* in the last month. Take a moment to identify this event now, before moving on to the next page. Describe your [unresolved vs. resolved] event in a few sentences:

Second Event Cue

Please choose an event from your past that you now think of as [insert description not previously used for first event]. Choose an event that you were involved in on any day within 12 months of the event you identified earlier but *not* in the last month. Take a moment to identify this event now, before moving on to the next page. Describe your [insert description not previously used for first event] event in a few sentences:

Appendix G

The Psychological Closure Scale (PCS; Boucher & Scoboria)

Carefully consider the event you selected and rate the degree to which the following statements are true for you right now in this moment. The scale ranges from 1 (completely disagree) to 7 (completely agree). If your experience falls somewhere between complete disagreement and agreement, indicate this by choosing a value between 1 and 7 that most accurately reflects your current experience.		1 Completely Disagree	2 Mostly Disagree	3 Somewhat Disagree	4 Neutral	5 Somewhat Agree	6 Mostly Agree	7 Completely Agree
Freeing Finality								
1	I have complete closure on this event							
2	I have made peace with this event							
3	This event feels settled or put to rest							
4	This event is like a 'closed book' to me							
5	I have reached a meaningful conclusion about this event							
6	I feel free from the emotional grip of this event							
7	I feel relief, satisfaction, or fulfillment as I think about this event now							
8	This event feels resolved							
9	As I think about this event now, I feel content with the way things worked out							
10	I am totally over this event							
11	This event is completely behind me now							
Clear Understanding								
12	I have a clear understanding of this event							
13	I am confused about this event*							
14	I can make clear sense of what happened							
15	I fully understand what this event is about							
Felt Distance								
16	This event feels like ancient history							
17	It feels like this event happened a really long time ago							
18	This event feels far away from me							
19	This event feels far-off in the distant past							
20	This event feels like a distant memory							

	1 Completely Disagree	2 Mostly Disagree	3 Somewhat Disagree	4 Neutral	5 Somewhat Agree	6 Mostly Agree	7 Completely Agree
Emotional Release							
21							
22							
23							
24							
25							
Experiential Change							
26							
27							
28							
29							
30							
31							
Mental Liberation							
32							
33							
34							
35							
36							
37							
Behavioural Deactivation							
38							
39							
40							
41							
42							

Appendix H

Mental Itch Scale (MIS; Jarman, 2016)

During the period of time that you were working on the problem, to what extent would these statements describe what you were experiencing? (1 = *not at all*; 7 = *very much*).

1. If I'm not working on the problem, I feel anxious.
2. The problem won't let go of me until I solve it.
3. I know that a feeling of mental unease will be there until I solve the problem.
4. The problem is in my head no matter what I'm doing.
5. It feels like an internal conflict.
6. The longer it takes, the more the internal pressure builds for me to solve it.
7. The problem eats at me.
8. My mind feels rushed to solve the problem.
9. I can't rest until I figure it out.
10. The problem keeps pushing its way to the surface of my thoughts.
11. The problem bugs me until I can solve it.
12. The problem feels like a constant itch that can't be scratched until I solve it.
13. The problem is mentally uncomfortable.
14. I feel an overwhelming need to solve the problem as soon as possible.
15. There's a feeling of unease in the back of my mind.

Appendix I

Need for Closure Scale – Short Version (Roets & Van Hiel, 2011)

Note. Items are rated on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

1. (Ambiguity) I don't like situations that are uncertain.
2. (Closed-mindedness) I dislike questions which could be answered in many different ways.
3. (Order) I find that a well-ordered life with regular hours suits my temperament.
4. (Ambiguity) I feel uncomfortable when I don't understand the reason why an event occurred in my life.
5. (Closed-mindedness) I feel irritated when one person disagrees with what everyone else in a group believes.
6. (Predictability) I don't like to go into a situation without knowing what I can expect from it.
7. (Decisiveness) When I have made a decision, I feel relieved.
8. (Decisiveness) When I am confronted with a problem, I'm dying to reach a solution very quickly.
9. (Decisiveness) I would quickly become impatient and irritated if I would not find a solution to a problem immediately.
10. (Predictability) I don't like to be with people who are capable of unexpected actions.
11. (Ambiguity) I dislike it when a person's statement could mean many different things.
12. (Order) I find that establishing a consistent routine enables me to enjoy life more.
13. (Order) I enjoy having a clear and structured mode of life.
14. (Closed-mindedness) I do not usually consult many different opinions before forming my own view.
15. (Predictability) I dislike unpredictable situations.

Appendix J

Responses to Emotions Questionnaire (REQ; Jeffries et al., 2016)

When I experience distressing emotions, I typically do the following: (0 = *not at all*; 4 = *a lot*).

Suppression

1. I try to hold back or suppress my emotions.
2. I try to push my thoughts and feelings from my mind.
3. I try to tell myself to stop thinking about my negative thoughts or emotions.

Avoidance

4. I try to avoid things that will make me feel bad.
5. If I know something will make me upset, I avoid those situations.
6. I try hard to avoid feeling negative emotions.

Rumination

7. I try hard to analyze why I have negative feelings by thinking about it over and over.
8. I try hard to analyze why I have negative thoughts or emotions by replaying events over in my head.
9. I dwell upon my thoughts and feelings.

Reappraisal

10. I try to think about my feelings in a way that makes me feel less distressed.
11. If I find myself thinking negative thoughts, I try to reframe them in a more balanced way.
12. When I have negative thoughts or emotions, I try to change the way I interpret the situation in a more realistic way.

Note. Higher scores on each subscale reflect a greater use of that particular strategy.

Appendix K

Centrality of Event Scale (CES; Berntsen & Rubin, 2006b)

Answer the following questions in an honest and sincere way, by selecting a number from 1 (*totally disagree*) to 5 (*totally agree*).

1. I feel this event has become part of my identity.
2. I feel that this event has become a central part of my life story.
3. This event has become a reference point for the way I understand myself and the world.
4. This event has colored the way I think and feel about other experiences.
5. This event permanently changed my life.
6. I often think about the effects this event will have on my future.
7. This event was a turning point in my life.

Appendix L

Transitional Impact Scale (TIS-12; Svob et al., 2013)

Carefully consider the event you have described. In assessing your life after the event, rate the degree to which the following statements were true of your experience. The scale ranges from 1 (*completely disagree*) to 5 (*completely agree*). If your experience falls somewhere in between complete disagreement and agreement, please indicate this by choosing a value between 1 and 5 that most closely reflected your experience.

Material Subscale

1. This event has changed the places where I hang out.
2. This event has changed the things I own.
3. This event has changed my material circumstances.
4. This event has changed the activities I engage in.
5. This event has changed the people I spend time with.
6. This event has changed where I live.

Psychological Subscale

7. This event has changed my attitudes.
8. This event has changed the way I think about things.
9. This event has impacted my emotional responses.
10. This event has changed my sense of self.
11. This event has impacted me psychologically.
12. This event has influenced my understanding of right and wrong.

Appendix M

Subjective Impact and Personal Significance Scale (Wood & Conway, 2006)

Note. Items are rated on a 7-point scale ranging from 1 (*not at all*) to 6 (*very much*).

1. This past event has had a big impact on me.
2. I feel that I have grown as a person since experiencing this past event.
3. Having had this experience, I have more insight into who I am and what is important to me.
4. Having had this experience, I have learned more about what life is all about.
5. Even when I think of the event now, I think about how it has affected me.
6. I have often spent time thinking about what this event means to me.

Note. Items are presented in a counterbalanced order.

Appendix N

Sudden Restructuring of Experience Scale (SRES; Jarman, 2014)

To what extent would you agree with the following statements to describe your experience of the sudden mental click? (1 = *not at all*; 7 = *very much*).

1. It was as if I were seeing the same problem through new eyes.
2. Something deep inside of me changed.
3. The problem looked different all of a sudden.
4. I knew I would never again go back to seeing the problem how I had before.
5. My new understanding of the problem really sunk in.
6. It was like I was truly seeing the problem for the first time.
7. It was more than just solving this one problem – something seemed to sink in for me, changing how I would approach future problems as well.

Appendix O

Unfinished Business Resolution Scale (UBRS; Singh, 1994)

Note. Individuals will be screened prior to responding to the UBRS with the following items: “The event I selected involved at least one other person at the time it occurred” (*yes, no*); (If “yes”) “How many other people were present at the time the event occurred? (*enter number here: _____*).

Instructions: The following questions ask you how you feel now in terms of your unfinished business with the significant other person whom you specified at the beginning of therapy. Please circle the number of the scale that best represents how you currently feel (0 = *not at all*; 5 = *very much*).

1. I feel troubled by my persisting unresolved feelings (such as anger, grief, sadness, hurt, resentment) in relation to this person. (*distress*) (RS)
2. I feel frustrated about not having my needs met in relation to this person. (*needs*) (RS)
3. I feel worthwhile in relation to this person. (*self*)
4. I see this person negatively. (*other*) (RS)
5. I am comfortable about my feelings in relation to this person. (*distress*)
6. This person’s negative view or treatment of me has made me feel badly about myself. (*self*) (RS)
7. I feel okay about not having received what I needed from this person. (*needs*)
8. I feel unable to let go of my unresolved feeling in relation to this person. (*distress*) (RS)
9. I have a real appreciation of this person’s own personal difficulties. (*other*)
10. I have come to terms with not getting what I want or need from this person. (*needs*)
11. I view myself as being unable to stand up for myself in relation to this person. (*self*) (RS)
12. I feel accepting toward this person. (*other*)

Degree of Distress Associated with Lingering Feelings: 1, 5, 8

Not Having Needs Met: 2, 7, 10

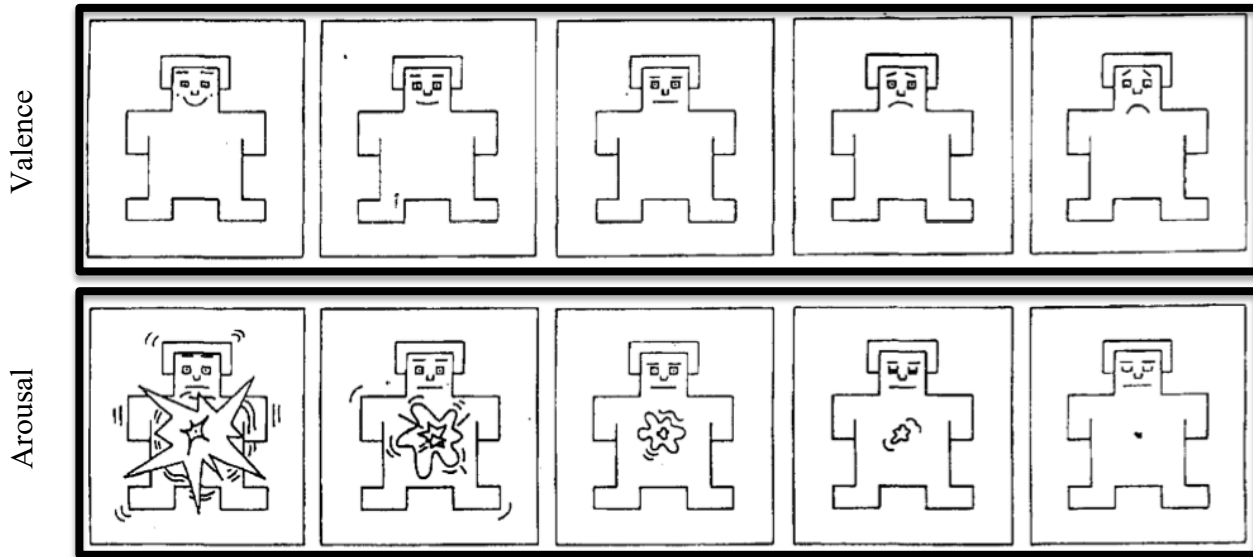
Perceptions of the Self: 3, 6, 11

Perceptions of the Other: 4, 9, 12

Appendix P

Self-Assessment Mannequin (SAM; Bradley & Lang, 1994)

On each row below, place the slider under one figure, or between two figures, that accurately portrays how you are feeling today.



Appendix Q

Positive and Negative Affect Schedule (PANAS; Watson et al., 1988)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent [the 'Moment' time instruction will be inserted here]. Use the scale to record your answers.

1	2	3	4	5
Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
	<input type="checkbox"/> interested			<input type="checkbox"/> irritable
	<input type="checkbox"/> distressed			<input type="checkbox"/> alert
	<input type="checkbox"/> excited			<input type="checkbox"/> ashamed
	<input type="checkbox"/> upset			<input type="checkbox"/> inspired
	<input type="checkbox"/> strong			<input type="checkbox"/> nervous
	<input type="checkbox"/> guilty			<input type="checkbox"/> determined
	<input type="checkbox"/> scared			<input type="checkbox"/> attentive
	<input type="checkbox"/> hostile			<input type="checkbox"/> jittery
	<input type="checkbox"/> enthusiastic			<input type="checkbox"/> active
	<input type="checkbox"/> proud			<input type="checkbox"/> afraid

The following time instructions have been used with the PANAS:

Moment	You feel this way right now, that is, at the present moment.
Today	You have felt this way today.
Past few days	You have felt this way during the past few days.
Week	You have felt this way during the past week.
Past few weeks	You have felt this way during the past few weeks.
Year	You have felt this way during the past year.
General	You generally feel this way, that is, how you feel on the average.

Appendix R

Emotion Items (adapted from Berntsen & Bohn, 2010; Johnson et al., 1988; Libby & Eibach, 2011a; Rubin et al., 2003)

(Valence) As I think about the event now, my emotions are [were] (-3 = *extremely negative*; 3 = *extremely positive*).

(Intensity) As I think about the event now, my emotions are [were] (1 = *not intense*; 7 = *very intense*).

(Reaction) I have had a physical/bodily reaction to the memory – for example, by talking to myself, smiling, crying, shivering, palpitation, laughing, etc. (1 = *Not at all*; 7 = *To a very high degree*).

Appendix S

Temporal Distance and Self-Change Items

(Objective temporal distance) What is your current age? ___ How old were you when the event took place? ___ If you indicated your current age, how many days from today is the event in the past? (derived from Berntsen & Bohn, 2010).

(Subjective temporal distance) Regardless of when events actually occurred in the past, sometimes they feel very far away, while other times they feel very close almost like yesterday. As you think about it right now, how far away does the event you recalled FEEL to you? (1 = *feels like yesterday*; 7 = *feels very far away*; 1 = *feels very close*; 7 = *feels very distant*; adapted from Libby & Eibach, 2011a; Ross & Wilson, 2002).

(Self-change in relation to event A) How much have you changed since the event happened? (1 = *not at all*; 10 = *completely*; adapted from Aron, Aron, & Smollan, 1992).

(Self-change in relation to event B) I feel like the person in this memory is a different person than who I am today (1 = *totally disagree*; 10 = *totally agree*; adapted from Crawley, 2010).

Appendix T

Manipulation Checks

Imagery Perspective Manipulation Checks

(Third-person) Indicate the extent to which you could mentally see the event replay from a perspective as seen through the eyes of an observer (1 = not at all; 7 = to a very high degree).

(First-person) Indicate the extent to which you could mentally see the event replay from a perspective as seen through your own eyes (1 = not at all; 7 = to a very high degree).

Narrative Perspective Difficulty

(Pronoun use difficulty) How difficult or easy was it for you to write about your event in the first-person [third-person] pronoun? (1 = *extremely easy*; 7 = *extremely difficult*; adapted from Gu & Tse, 2016).

(Pronoun use shifting difficulty) How difficult or easy was it for you to change the pronoun you used as you wrote about your event? (1 = *extremely easy*; 7 = *extremely difficult*).

(Mental imagery difficulty) How difficult or easy was it for you to visualize the event in your mind as you wrote about it? (1 = *extremely easy*; 7 = *extremely difficult*; adapted from Libby & Eibach, 2011a).

(Imagery perspective shifting difficulty) How difficult or easy was it for you to change the perspective you used to visualize your event as you wrote about it? (1 = *extremely easy*; 7 = *extremely difficult*).

Mental Focus Manipulation Check (Study 3)

When describing your event earlier, you may have focused more on what it was like to experience the event directly, for example, by describing the sights, sounds, and smells you experienced and/or your thoughts and feelings during the event. OR, you may have focused more on analyzing the meaning of the event in your life, for example, by explaining the broader significance of the event, what it says about your personality and/or goals, how it connects to other events in your life, and/or what the consequences were or are.

Please indicate the focus of your thoughts using the scale below: (1 = *focused completely on what it was like to experience the event, not at all on analyzing the event*; 8 = *focused completely on analyzing the event, not at all on what it was like to experience the event*).

Appendix U

Cognitive Avoidance (Ayduk & Kross, 2010; Kross et al., 2012)

(Avoidance A) When prompted to recall this experience, I tried to avoid thinking about it (1 = *strongly disagree*; 5 = *strongly agree*).

(Avoidance B) When prompted to recall this experience, I tried to suppress (push away) my feelings about it (1 = *strongly disagree*; 5 = *strongly agree*).

Appendix V

Study 3 Event Cue and Narrative Perspective Manipulation Instructions

Event Cue (adapted from Beike & Wirth-Beaumont, 2005)

Please choose an event from your past that you currently consider to be *very unpleasant and unresolved*, meaning you do not currently have closure on it, you do not understand it, or it feels unsettled.

Choose an event that you were involved in on any day within the past 6 years but *not* in the last month. Take a moment to identify this event now. Provide a cue word for your event below:

(Age at Event) How old were you when this event took place (estimate age in years)? _____

Narrative Perspective (adapted from Gu & Tse, 2016, and Libby et al., 2005)

(First-person) Now visualize your event from the same perspective that you originally had when the event happened. In other words, in your mind, form images of your surroundings in the event as if you are seeing it replay through your own eyes.

Close your eyes for a moment and picture your event from this perspective.

Holding these images in your mind, write about your event and refer to yourself using the 1st-person pronoun, 'I' (e.g., "*I* crossed the street, *I* saw a group of people, and *I* walked over...")

Please use the next 5-7 minutes to visualize and write about your event in the 1st-person below.

(Third-person) Now visualize your event from an observer's perspective. In other words, in your mind, form images of yourself and your surroundings in the event as if you are seeing it replay through the eyes of an observer.

Close your eyes for a moment and picture your event from this perspective.

Holding these images in your mind, write about your event and refer to yourself using a 3rd-person pronoun 'he', 'she', or 'they' (e.g., "*He/She* crossed the street, *he/she* saw a group of people, and *he/she* walked over...")

Please use the next 5-7 minutes to visualize and write about your event in the 3rd-person below.

Appendix W

Study 3 Mental Focus Manipulation Instructions

Mental focus (adapted from Boucher & Scoboria, 2015; Libby & Eibach, 2011a)

(Experience focus) Now elaborate on the concrete details of your event. That is, describe (or continue describing) what it was like to experience the event directly as if you are actually there again. For example, where did this event take place? What specific actions (e.g., drove, walked, sat, etc.) did you engage in? What did you see? What did you hear? What did you smell? What objects and what people were involved?

Please use the next 5-7 minutes to recall and write about ONLY the specific facts and details of your event (location, actions, sights, sounds, scents, objects, people).

(Coherence focus) Now elaborate on the broader significance of your event. That is, describe (or continue describing) the meaning of this event to you and your life. For example, how does this event relate to your previous experiences, accomplishments, and personal relationships? How does this event relate to your future? What are the implications of this event? What is the meaning of this event in terms of your life as a whole and yourself as a person?

Please use the next 5-7 minutes to recall and write about ONLY the broader meaning of your event (relation to previous experiences, accomplishments, relationships, your future, and meaning to you and your life).

VITA AUCTORIS

NAME: Chantal M. Boucher

PLACE OF BIRTH: Windsor, Ontario

EDUCATION: University of Windsor
B.A.[H], Honours Psychology with Thesis, 2012

University of Windsor
M.A., Adult Clinical Psychology, 2015

University of Windsor
Ph.D., Adult Clinical Psychology, 2019
Clinical Psychology Residency
Calgary, Alberta