Villatte, M. Villatte, J. L., & Hayes, S. C. (in press). A reticulated and progressive strategy for developing clinical applications of RFT. *The Psychological Record*.

A Reticulated and Progressive Strategy for Developing Clinical Applications of RFT

Matthieu Villatte
Evidence-based Practice Institute, Seattle

Jennifer L. Villatte
University of Washington

Steven C. Hayes
University of Nevada Reno

Contact information: matthieu.villatte@gmail.com

Abstract

In this paper, we reply to the review of our book Mastering the Clinical Conversation: Language as Intervention, in which we developed a framework to use relational frame theory (RFT) principles in clinical practice. We identified four main areas of discussion: the reticulation strategy, the importance of functional analysis, the implication of learning history in clinical work, and the development of research in RFT for clinical applications. We address each of these points systematically, arguing that our book is timely and can contribute to the progression of RFT research and application.

Introduction

An important goal of *Mastering the Clinical Conversation: Language as Intervention* (MCC) (Villatte, Villatte, & Hayes, 2016) is to stimulate mutual interest and facilitate dialogue between clinicians and RFT researchers. We were thus excited to read in this review (Barnes-Holmes et al., in press) the numerous positive points appreciated by researchers that have made substantial contributions to the RFT literature. We appreciate the time and consideration the reviewers invested in providing feedback that can improve this work, and are encouraged that the positive aspects of their feedback are largely consistent with the feedback we have received from clinicians, researchers, and educators who have read MCC or participated in our MCC-based training, supervision, and consultation. For example, the reviewers detail a number of positive evaluations on our treatment of the self, meaning and motivation, metaphors, and experiential practice. We were also pleased to see such an enthusiastic response to our exploration of the central role of coherence in psychopathology and clinical work, and to our attempt to specify the use of deictic and hierarchical relations in clinical interventions.

In addition to these positive points, we welcome the elements of discussion brought by the review as opportunities to present our approach further, identify areas for improvement, and explore new avenues for RFT research and applications. We identified four main areas of further discussion: the reticulation strategy, the importance of functional analysis, the implication of learning history in clinical work, and the development of research in RFT for clinical applications. We address each of these points in the sections below.

The Reticulation Strategy

The authors of the current review raise a good question – is it the right time for a book-length treatment of clinical applications of RFT? We asked ourselves the same question, out of concern for all the research questions yet to be investigated and for the tendency of published texts to be reified as canon even while their ideas stagnate and evidence and theory become outdated. Our answer to these concerns is found in the reticulated approach of contextual behavioral science (Hayes, Barnes-Holmes, & Wilson, 2012). The advantage of a reticulated approach is to leverage the precision of methodologies emerging from basic laboratories with the depth of analysis in translational research programs and the pragmatic scope of implementation science and population health analyses. Without input from basic researchers, clinicians miss the opportunity to refine their practices with principles studied in controlled environments; without input from clinicians, basic researchers miss an opportunity to assess how basic principles work in the natural environment.

As clinical and basic RFT researchers, clinicians, and clinical trainers, we were in a good position to connect both ends of the reticulation continuum. We worked in close collaboration with other RFT researchers and clinicians during the whole process of developing the book, which lasted for about five years. During this process, we tested the ideas in MCC in our own clinical work, in workshops and online trainings, and in supervisions. We shared versions of the manuscript with a number of RFT researchers and clinicians using RFT (including with authors of the present review) as well as clinicians who had never been exposed to RFT. We used the feedback we received to refine the account with the dual goal of consistency with RFT basic

principles *and* practicality in applied contexts.

This reticulated research strategy is mirrored in the teaching strategy employed in MCC. For example, we present RFT concepts in the first two chapters through lab experiments, everyday examples, and clinical case vignettes, moving up and down levels of precision as a kind of multiple exemplar training. Our hope was that, by the end of Chapter 2, the reader would have sufficient knowledge of RFT principles and sufficient understanding of their relevance for clinical work to comfortably approach the more practical chapters. Our interviews with clinicians using RFT in their practice revealed that although they used technical terms and concepts (e.g., "relational networks", "transformation of function") to analyze cases and plan interventions, they found that technical concepts were not always well-suited for understanding, predicting, and influencing the clinical presentations and decisions encountered in routine care. Instead of sticking only with technical terms, clinicians navigated at different levels of language depending on what is most useful for a given purpose in a given context. We observed the same process in our own use of RFT for clinical work. For example, when noticing that a client is struggling to find purpose in her life, we might first consider intervening on "values" or "life meaning." In order to more specifically guide such interventions, we begin to think with RFT principles and lead the client to identify sources of positive, intrinsic, and overarching reinforcement. This in turn could focus on the types of framing guiding verbal interactions, for example, using distinction or opposition framing to transform negative reinforcement into positive reinforcement, or conditional framing to extract overarching reinforcement from specific goals.

The ability to navigate seamlessly among levels of technical precision is key to using RFT principles in psychotherapy. The flow of interactions happening in a clinical conversation makes it difficult for a clinician to constantly think at the level of very basic principles and at the

same time, remain connected to her client and respond in a way that feels natural. For this reason, in MCC we deliberately use technical terms combined with mid-level and even colloquial terms in order to help clinicians integrate these levels into their clinical framework. Clinicians and basic RFT researchers exposed to this work seem to appreciate the effort to bring technical terms into natural language. We have noticed that clinicians gradually use technical terms more and more over time, with greater accuracy and without losing their ability to interact naturally with their clients. A process of shaping and refinement seems to emerge over time from integrating language systems and levels. Using a precise and consistent language is necessary in science but only as tempered by its utility, and it is in the spirit of creating a precise and pragmatic RFT language for clinical use that we wrote our book.

In some cases, we proposed new terms that bridged pragmatic gaps between technical and colloquial language. For example, we talk about three types of coherence (i.e., essential, social, and functional coherence) to describe ways in which humans combine events into relational networks and their clinical implications (see Chapters 2, 3, and 4 for a description of how these different types of coherence are involved in clinical issues). Coherence *per se* is not a new RFT term, and our use of this term appears to be consistent with its use in the RFT literature. The concepts of functional, social, and essential coherence are not entirely new either (e.g., social coherence is related to the concept of pliance in the RFT literature and essential coherence is related to philosophical essentialism). We used new terms when our current terms did not seem adequate for the clinical task at hand, particularly based on conceptual and applied concerns.

In a reticulated approach, RFT belongs to all contextual behavioral psychologists, not basic researchers alone. Contextual science seeks ways of speaking about phenomena in an

increasingly organized way so as to guide effective interaction within a domain and there is no reason for such concepts to emerge solely from the lab. This approach is similar to the one original RFT text (Hayes, Barnes-Holmes, & Roche, 2001) in which terms such as "pragmatic verbal analysis" were developed that did not emerge from the basic laboratory per se but were used for the sake of a consistent account and to advance needed research. Useful terms and techniques can emerge from conceptual and practical explorations made by clinicians, provided they meet these two criteria. We believe that the new concepts we used in our book do so.

The Importance of Functional Analysis

The reviewers wish there were more "ongoing emphasis on the continuous need for functional analysis" in MCC. Relational frame theory is inextricably embedded in a functional contextual worldview and in our view the ongoing analysis of behavior-in-context is at the core of all effective applications of RFT. Functional analysis and accounting for an individual's learning history in case formulation and intervention planning is thus central to the entire volume.

After the first two chapters of MCC, which describe the philosophical and technical aspects of RFT, Chapter 3 presents a framework for case formulation and intervention planning built around two overarching treatment goals (developing flexible context sensitivity and functional coherence) and one overarching therapeutic strategy (altering the context to transform symbolic functions). This framework is intended to provide a set of guiding principles for organizing assessment and intervention around an ongoing functional analysis of therapist and client behavior – regardless of treatment model, modality, or case presentation.

Functional analysis then forms the core of Chapter 4, which details key strategies for assessing the influence of contextual variables on client behavior. The reviewers note several sections that "clearly highlight the importance of an ongoing functional analysis." The section on *Assessing Context Sensitivity* examines the role of antecedents and consequences, and the section on *Assessing Coherence* examines the role of rules and rule following. Chapter 5 focuses on training the client to observe and analyze the contextual elements composing her experience and noticing the functional relationships organizing these elements (see the section on *Increasing Functional Contextual Awareness*), which extends functional analysis directly to the client.

Interventions presented in the subsequent chapters are applied within the same clinical framework presented in Chapter 3, along with the same assessment routine presented in Chapter 4, with a constant emphasis on developing the client's awareness of her own behavior in context, as shown in Chapter 5. These later chapters draw the reader's attention to the importance of functionally assessing the client's behavior in context, as well as the impact of therapeutic interventions. For example Chapter 8 shows in detail how to build metaphors based on a functional analysis of the client's behavior, and Chapter 9 presents three functional analyses of clinical cases before proposing different experiential exercises. As the authors of the review also noted, the process of functional analysis is highlighted in annotations of numerous clinical examples throughout the book, precisely because this it is so central to RFT applications. We are encouraged that the reviewers found "there were numerous examples in which we believed that these functional analyses were sound and involved analyses of language processes, as defined by RFT."

The Implication of Learning History in Clinical Assessment and Intervention

The reviewers also wish we had put more emphasis on learning history beyond the substantial treatment we give this topic in Chapter 1, which presents symbolic responding as a learning process, and Chapter 2, which explores the clinical implications of symbolic responding on an individual's learning history. Addressing a client's learning history is embedded in our approach to functional analysis and to the specific steps we recommend. For example in Chapters 1 – 3, we present our argument that, in the absence of developmental or neurological disorders, the analysis of learning history in adults is best assessed by observing current behavior (e.g., thoughts, feelings, actions, verbal reports of past and private events) across a variety of contexts. Chapters 4 – 10 demonstrate how the therapist and client can use language to alter context for the purpose of assessing and evaluating behavioral functions and for shaping behavior that is effective and adaptive to contexts as they evolve.

It is worth noting that our way of addressing the client's learning history in the therapeutic process is informed not only by classical behavioral analysis, but also by other approaches (e.g., humanistic, experiential) utilized by our intended audience. In some ways we are less interested in helping therapists analyze their clients' learning history than in helping *clients* develop the skills to learn from their own history, and to respond adaptively to the echoes of this history. Our recommendations to therapists, therefore, emphasize strategies for building a common language that facilitates mutual understanding and collaborative exploration of current and historical contingencies. For example Chapter 4 (*Psychological Assessment*) begins with building an experiential context for ongoing self-assessment by evoking the client's observation

and description of their own behavior and its current and historical sources of influence, and the first intervention chapter (*Activating and Shaping Behavior Change*) emphasizes validating and integrating current and historical events through a functional approach to coherence. This process is ongoing during all stages of therapy in the approach we describe, which guarantees that the client's learning history remains at the center of the therapeutic process, regardless of what is discussed in any given session. Another example of the influence of humanistic and experiential perspectives on our approach to the client's learning history can be found in Chapter 8 on the use of metaphors. While we devoted a large part of this chapter to the *construction* of metaphors adapted to the client's background, we also emphasized the utility of using *clients' spontaneous* metaphors to ensure a good functional match with the client's culture and lived experience.

The Development of Research in RFT for Clinical Applications

Between 2009 and 2016, 160 empirical papers on RFT, 128 empirical papers on derived stimulus relations and arbitrarily applicable relational responding, and 233 RFT review and conceptual papers were published in peer-reviewed journals (O'Connor, Farrell, Munnelly, & McHugh, 2017). These numbers represent a dramatic increase in the RFT literature compared to a previous review published in 2010 (Dymond, May, Munnelly, & Hoon, 2010). Since the first RFT book (Hayes et al., 2001), at least four new RFT books (Dymond & Roche, 2013; McHugh & Stewart, 2012; Rehfeldt & Barnes-Holmes, 2009; Törneke, 2010) and a few books directly linking RFT to clinical practice were published (Dahl, Plumb, Stewart, & Lundgren, 2009; Dahl, Stewart, Martell, & Kaplan, 2014; Törneke, 2017). The recent *Handbook of Contextual*

Behavioral Science (Zettle, Hayes, Barnes-Holmes, & Biglan, 2016) also contains a whole section on RFT. Our goal was to provide a framework to use RFT in clinical practice and to stimulate clinical research in RFT and MCC clearly benefitted from this long list of strong contributions.

In our view, RFT needs to be extended into all levels of translational health research in order to fulfill its potential to improve clinical care and reduce human suffering. We need more studies that move basic discoveries into matters of clinical concern, including those that analyze clinically relevant phenomena in controlled environments. The majority of clinically-applicable RFT research published thus far falls into this category and has strongly influenced the approach outlined in MCC (e.g., Hooper, Saunders, & McHugh, 2010 on thought suppression and generalization of experiential avoidance; Luciano et al., 2014 on the impact of acceptance and defusion vs motivation interventions on experiential avoidance). Yet more of this research is needed to deepen our understanding of how language contributes to the development and maintenance of clinical problems, and to improve the efficacy of clinical interventions targeting derived relational responding as a mechanism of behavior change. For example, Carpenter et al. (2016) demonstrated that derived relational responding moderates the relationship between "change talk", a mechanism of action in Motivational Interviewing (Miller & Rollnick, 1991), and response to outpatient treatment for cocaine abuse. The study involved a pre-treatment relational training procedure, repeated measurement of derived equivalence responding, and multivariate analyses of the relationships among derived relations, change talk, and treatment outcome. Translational research does not require complex and time-consuming relational training procedures (i.e., it is an *extension* of research that investigates relational learning under complete experimental control) so it can investigate relational framing activated through clinical

conversation. An example cited in MCC compares the effectiveness of "self as context" interventions using different combinations of relational framing to reduce emotional distress (Foody, Barnes-Holmes, Barnes-Holmes, & Luciano, 2013; Luciano et al., 2011).

Translational science doesn't end with "bench-to-bedside"; it includes research on healthcare delivery, dissemination, and diffusion. While there is a growing body of this type of research on treatments informed by RFT (see Hooper & Larsson, 2015 for a review of ACT evidence), we need more treatment research that investigates interventions based explicitly on RFT concepts and techniques derived from basic RFT studies. Recent advancements in single-case experimental designs (SCED) make this classic behavior analytic methodology ideal for simultaneously investigating questions about RFT-informed treatment moderators, mediators, and outcomes (Vilardaga, 2014). To our knowledge there are no published studies of this kind, but SCED research based on MCC strategies is in progress. Research is also needed to refine and evaluate the clinical and health services outcomes of clinical RFT training, which can inform practice guidelines for healthcare providers and administrators. We believe that the approach we proposed in MCC can be tested at all of these levels of translational health research.

Conclusion

Mastering the Clinical Conversation: Language as Intervention was written because we believe RFT, as it is now, has much to offer clinical behavioral science and practice. In equal measure, MCC was written because we believe RFT, like all good theories, needs to evolve. Both patients and clinicians are seeking evidence of "what works" when making healthcare decisions, and in the modern world people are less willing to wait for the slow, incremental

progress of a linear translation from efficacy to effectiveness to implementation. This doesn't mean that science values and principles are no longer relevant – it means that scientific methods need to adapt in order to evolve more quickly and remain useful as a means of prediction and influence.

The reticulated model of contextual behavior science seems well suited to maximize the utility and impact of scientific and technological innovations. The RFT laboratories alone cannot achieve the aspirational knowledge goals outlined in the original RFT text, and reiterated in the current review paper. The substantial body of RFT work generated in the past 16 years, however, allows intervention developers, applied researchers, and clinical educators such as ourselves to go far beyond speculative prose and arm-chair interpretation. The content and structure of MCC is the result of years of iterative development and evaluation involving user-testing and formative feedback with our clients, colleagues, students, and mentors. This gives us some confidence that the book provides a step forward in the practical and empirical explorations of clinical applications of RFT.

Like the reviewers, we welcome open dialogue about the current status and future directions for RFT research and applications. MCC itself, and the current review and response paper, are part of that dialogue. However, the successful translation of RFT to applied outcomes will not be advanced through consensus. "The extent to which RFT can genuinely at this point contribute meaningfully to therapy" is an empirical question, and one that MCC provides a breadth of material that researchers can use to conduct the basic, translational, and applied research that informs evidence-based care. That work has already begun in our own and independent labs across the world, and the earliest studies are beginning to be presented in peer-reviewed scientific meetings and publications. The ultimate success of MCC will be determined

by whether it contributes to a more progressive science of human behavior.

References

Barnes-Holmes, Y., Kavanagh, D., Barnes-Holmes, D., Finn, M., Harte, C., Leech, A., & McEnteggart, C. (in press). Review: Mastering the Clinical Conversation: Language as Intervention, Villatte, M., Villatte, J. L., & Hayes, S. C. (2016). New York, NY: The Guilford Press. *The Psychological Record*. DOI 10.1007/s40732-017-0229-0

Carpenter, K. M., Amrhein, P. C., Bold, K. W., Mishlen, K., Levin, F. R., Raby, W. N., … Nunes, E. V. (2016). Derived relations moderate the association between changes in the strength of commitment language and cocaine treatment response. *Experimental and Clinical Psychopharmacology*, *24*(2), 77–89. doi: 10.1037/pha0000063

Dahl, J. C., Plumb, J. C., Stewart, I., & Lundgren, T. (2009). *The art and science of valuing in psychotherapy: Helping clients discover, explore, and commit to valued action using acceptance and commitment therapy*. Oakland, CA: New Harbinger.

Dahl, J. C., Stewart, I., Martell, C., & Kaplan, J. S. (2014). *ACT and RFT in relationships: Helping clients deepen intimacy and maintain healthy commitments using acceptance and commitment therapy and relational frame theory*. Oakland, CA: New Harbinger.

Dymond, S., May, R. J., Munnelly, A., & Hoon, A. E. (2010). Evaluating the evidence based for relational frame theory: A citation analysis. *The Behavior Analyst*, *33*, 97–117.

Dymond, S., & Roche, B. (Eds.). (2013). *Advances in relational frame theory: Research and application*. Oakland, CA: New Harbinger.

Foody, M., Barnes-Holmes, Y., Barnes-Holmes, D., & Luciano, C. (2013). An empirical investigation of hierarchical versus distinction relations in a self-based ACT exercise. *International Journal of Psychology & Psychological Therapy*, *13(3)*, 373-388.

Hayes, S. C., Barnes-Holmes, D., & Roche, B. (Eds.). (2001). *Relational frame theory: A post-Skinnerian account of human language and cognition*. New York: Plenum Press.

Hayes, S. C., Barnes-Holmes, D., & Wilson, K. G. (2012). Contextual behavioral science: Creating a science more adequate to the challenge of the human condition. *Journal of Contextual Behavioral Science, 1,* 1-16. https://doi.org/10.1016/j.jcbs.2012.09.004

Hooper, N., & Larsson, A. (2015). *The research journey of acceptance and commitment therapy (ACT)*. London. Palgrave Macmillan.

Hooper, N., Saunders, S., & McHugh, L. (2010). The derived generalization of thought suppression. *Learning and Behavior*, *38(2),* 160-168. doi: 10.3758/LB.38.2.160

Luciano, C., Ruiz, F. J., Torres, R. M. V., Martín, V. S., Martínez, O. G., & López, J. C. (2011). A relational frame analysis of defusion interactions in acceptance and commitment therapy: A preliminary and quasi-experimental study with at-risk adolescents. *International Journal of Psychology and Psychological Therapy*, *11*, 165–182.

Luciano, C., Valdivia-Salas, S., Ruiz, F. J., Rodríguez-Valverde, M., Barnes-Holmes, D., Dougher, M. J., López-López, J. C., Barnes-Holmes, Y., & Gutierrez-Martínez, O. (2014). Effects of an acceptance/defusion intervention on experimentally induced generalized avoidance: A laboratory demonstration. *Journal of the Experimental Analysis of Behavior*, *101*, 94-111. DOI: 10.1002/jeab.68

McHugh, L., & Stewart, I. (Eds.). (2012). *The self and perspective taking: Contributions and applications from modern behavioral science*. Oakland, CA: New Harbinger.

Miller, W. R., & Rollnick, S. (1991). *Motivational interviewing: Preparing people to change addictive behavior*. New York: Guilford Press.

O'Connor, M., Farrell, L., Munnelly, A. & McHugh, L. (2017). Citation analysis of relational frame theory: 2009-2016. *Journal of Contextual Behavioral Science*, *6*, 152-158. https://doi.org/10.1016/j.jcbs.2017.04.009

Rehfeldt, R. A., & Barnes-Holmes, Y. (Eds.). (2009). *Derived relational responding: Applications for learners with autism and other developmental disabilities*. Oakland, CA:

New Harbinger.

Törneke, N. (2010). *Learning RFT: An introduction to relational frame theory and its clinical applications*. Oakland, CA: New Harbinger.

Törneke, N. (2017). *Metaphor in practice: A professional's guide to using the science of language in psychotherapy*. Oakland, CA: New Harbinger.

Vilardaga, R. (2014). Technical, practical and analytic innovations in single case designs for contextual behavioral scientists. *Journal of Contextual Behavioral Science*, *3*(2), 136–137. https://doi.org/10.1016/j.jcbs.2014.05.002

Villatte, M., Villatte, J. L., & Hayes, S. C. (2016). *Mastering the clinical conversation: Language as intervention*. New York: The Guilford Press.

Zettle, R., Hayes, S. C., Barnes Holmes, D., & Biglan, T. (Eds.). (2016). *Handbook of contextual behavioral science*. Chichester, UK: Wiley Blackwell.