## **Original Article:**

# RESOLVING INTERPERSONAL AND INTRAPERSONAL CONFLICTS: A COMPARISON OF THE PRACTICE OF MEDIATION WITH METHOD-OF-LEVELS PSYCHOTHERAPY

Kent McClelland, Ph.D. *Grinnell College, USA* 

Warren Mansell, Ph.D. *The University of Manchester, UK* 

#### **Abstract**

This paper compares and analyzes two ostensibly disparate fields of professional practice: the mediation of disputes and a psychological therapy called Method of Levels (MOL). Mediators address interpersonal conflicts, while MOL therapists help clients cope with intrapersonal conflicts. The academic literatures of the two practices do not overlap. While the techniques of mediation have developed pragmatically from a variety of theoretical perspectives, MOL derives explicitly from a single psychological theory: perceptual control theory (PCT). The PCT account relies on understanding the nature of control, considering controlled experiences in a multi-leveled hierarchy from concrete (sensory perceptions) to abstract (values, ideals, principles), and appreciating the pivotal role of the depth and duration of present-moment awareness. We argue that, in spite of differences, the two fields of practice have many similarities, and we show how PCT works equally well to analyze the interpersonal conflicts addressed by mediation as the intrapersonal conflicts addressed by MOL, and thus, that the two kinds of conflict are closely related. We conclude that the two fields of practice can be of mutual benefit to each other and that PCT can provide a useful theoretical foundation for both.

**Keywords:** mediation, alternative dispute resolution, method of levels, psychological therapy, perceptual control theory, theories of conflict

AUTHOR NOTE: Please address all correspondence to: Dr. Kent McClelland, Department of Sociology, Grinnell College, Grinnell, IA 50112, USA. Email: <a href="mailto:mcclel@grinnell.edu">mcclel@grinnell.edu</a>

#### INTRODUCTION

Over the last 50 years, techniques of alternative dispute resolution (ADR), including mediation, arbitration, conciliation, and several related techniques for resolving interpersonal conflicts, have come into widespread use in the United States, the United Kingdom, and other countries around the world (Coltri, 2004; Menkel-Meadow, 2015). ADR techniques have been developed as alternatives to direct negotiations between disputants, on the one hand, and formal adjudication, on the other. In the portfolio of ADR conflict-resolution techniques, mediation has been the most used. Mediators act as neutral third parties between two parties with a dispute, and the mediator's role is to facilitate communication between the disputants and assist them in the process of finding a mutually satisfactory resolution to their dispute (Moore, 2003). Our objective in this paper is to compare the practice of mediation with the practice of a relatively new type of psychological therapy called the Method of Levels (MOL) (Carey, 2006; Mansell, Carey, & Tai, 2012), which has its intellectual basis in a psychological theory known as perceptual control theory (PCT) (Powers, 1973, 2005).

We will argue in this paper that the practices used by mediators bear a striking resemblance to the practices used by MOL therapists, and moreover that many of the problems faced by mediators have parallels in the problems encountered in the course of MOL therapy. Our paper begins with overviews of how mediators and MOL therapists conduct their practice, including an examination of the theoretical perspectives on which these practices are based. In introducing readers to PCT, the theory from which the practice of MOL has been derived, we describe in detail what this psychological theory reveals about conflicts, both internal and external. We turn then to an examination and comparison of how mediators and MOL therapists each approach the problems of conflict they deal with.

Our paper shows how PCT can be used to analyze both the practices and problems of these two groups of practitioners. We argue that, in spite of some differences between these two kinds of practice, PCT can serve as a perspective for understanding issues common to both fields, and we inquire how these two similar practices can learn from each other. Our ultimate objective is to suggest that since both types of practitioners deal fundamentally with conflicts—mediators with interpersonal conflicts, and MOL therapists with internal psychological conflicts—perceptual control theory may provide an intellectual foundation for the further development of the field of mediation, just as it has done in the case of MOL therapy.

#### The Practice of Mediation

### **History of Mediation**

Although mediation has roots in older practices, the contemporary uses of mediation in the United States date to the early twentieth century when government officials began to mediate labor disputes, eventually leading to the establishment of the Federal Mediation and Conciliation Service in 1947 (Singer, 1994). In response to the riots and civil unrest in American cities in the 1960s, the U.S. Department of Justice established the Community Relation Service to apply mediation and other techniques for dealing with labor disputes to the resolution of disputes between groups in communities (Alfini, Press, Sternlight, & Stulberg, 2006). Several private organizations and foundations followed suit by also creating community mediation services (Saul, 2012). In the 1970s and 80s, mediation came to be seen as a more efficient way to deliver settlements of disputes than litigation in overcrowded courts, and the uses of mediation expanded rapidly (Salem, 2009; Saul, 2012; Menkel-Meadow, 2015). In the decades since, a wide variety of mediation programs have arisen to address different types of conflicts (McEwen, 2006), including divorce and custody proceedings (Folberg, Milne, & Salem, 2004; Mosten & Scully, 2015), small-claims disputes (McEwen & Maiman, 1984), school-based conflicts (Hendry, 2010), victim-offender mediation (Umbreit, Coates, & Vos, 2004), disputes involving commercial enterprises (Barker, 1996), environmental disputes (Amy, 1983), violent conflicts between nations and ethnic groups (Baumann & Clayton, 2017), and even online "cyber-mediation" (Goodman, 2003).

As might be surmised from the variety of applications in which mediation has been used, mediators themselves come from a variety of professional backgrounds. Many mediators are lawyers, often working in court-based mediation programs (Herrman, Hollett, Eaker, & Gale, 2003; Mosten & Scully, 2015). Another large group are mental health practitioners, who generally practice in the field of divorce and custody proceedings (Folberg et al., 2004; Regina, 2011; Emery, Rowen, & Dinescu, 2014). Others are diplomats, public service employees in governmental mediation services, full-time mediators in private mediation services, or part-time community volunteers (Walker & Hayes, 2006).

With such varied applications of mediation and professional backgrounds of mediators, the practice of mediation takes varied forms. In the most common form of mediation, mediators and disputants meet together in the same room to discuss the dispute, perhaps with attorneys for the two sides present, as well. In another form, the "caucus" style of mediation, the mediator shuttles between disputants in separate locations carrying messages back and forth between them (Barker, 1996). Whatever the type of mediation, mediators are expected to be impartial and even-handed, showing no favoritism to either party. This stance of neutrality distinguishes mediation from arbitration—the other most frequently used type of ADR—since arbitrators are expected to listen to the disputants on

both sides and then render a decision in favor of one side or the other. By contrast, mediators ideally avoid imposing settlements on disputants, but instead put the terms of any settlement entirely in the hands of the two parties, seeking only to facilitate their search for a solution that will be acceptable to both (Folberg et al., 2004; Menkel-Meadow, 2015). However, many mediators take a more active role in shaping the negotiation by drawing on their own expertise to offer legal opinions, evaluate the likely outcome of litigation, or suggest possible settlements (Garcia, 1995; Garcia, Vise, & Whitaker, 2002; Salem, 2009; Saul, 2012; Kressel, Henderson, Reich, & Cohen, 2012).

#### **Mediation in Practice**

Mediators typically begin their sessions with disputants by asking them to agree to a set of ground rules for the conduct of the mediation session and for communication between disputants. In mediation sessions in which the disputants are face to face, the ground rules ordinarily specify that only one person can talk at a time, and that each disputant will be given a chance to tell his or story without interruptions from the other party. As disputants talk, the mediator adopts the role of a friendly and curious listener, asking questions, if necessary, to clarify the disputants' stories and to verify that the mediator has a full and correct understanding of their positions (Kovach, 2005; Alfini et al., 2006).

Mediators see it as part of their role to encourage disputants to think outside the box in the search for a resolution to their conflict. They encourage the parties to look for creative solutions to the dispute, solutions that meet both parties' underlying needs, even though the idea might not have occurred to either of the parties before they listened each other's stories. Mediators often try to help disputants "reframe" their perceptions of conflicts to views that are more amenable to settlement of the dispute (Bodtker & Jameson, 1997; Mayer, 2000). If a settlement can be agreed upon, the mediator assists in the creation of a written document that records the terms of the settlement and then can be used as a guide for implementing it (Moore, 2003). Unlike settlements reached by formal adjudication, mediated settlements do not carry the force of law and thus do not establish precedents, but research results suggest that rates of voluntary compliance with mediated settlements are relatively high and that most participants are satisfied with the process (McEwen & Maiman, 1984).

#### Theories of Mediation

Although forms of mediation have long been used in folk traditions throughout the world (Singer, 1994), the practice of mediation in recent times has evolved pragmatically, without much reference to historical precedents or academic theories (Della Noce, Baruch Bush, & Folger, 2002). Most mediators today use a "problem-solving" style of mediation (Baruch Bush & Folger, 2005; Spangler, 2003), based loosely on the rational-choice psychological theory favored by economists and political scientists, and often also by

lawyers, who constitute the largest group of professional mediators. Problem-solving mediators help disputants to search for settlements—most often exchanges of money—that will satisfy their underlying needs. The assumption of this approach is that disputants are rational actors who can recognize their own interests and can also accept compromises that respect the interests of others.

A classic statement of the problem-solving approach is found in *Getting to Yes* (Fisher, Ury, & Patton, 2011), the book that introduced the ideas of "principled negotiation" and "win-win solutions" to a general audience (Fisher et al., 2011; Alfini et al., 2006). *Getting to Yes* does not discuss mediation directly, but rather offers guidelines for people seeking to resolve conflicts by means of unaided negotiations with another party. Nevertheless, many mediators who take a problem-solving approach believe in the principles advocated by the authors of *Getting to Yes*, and the way they mediate tends to channel disputants into using this style of negotiation. The advice given by the authors of *Getting to Yes* is not to "bargain over positions," but instead to "separate the people from the problem," "focus on interests, not positions," "invent options for mutual gain," and "insist on using objective criteria" (Fisher et al., 2011). This framing portrays disputes as problems to be analyzed and solved, not contests of wills, and it encourages disputants to look beyond the issues at hand to find ways of resolving their conflicts.

Just as lawyer-mediators tend to bring a problem-solving orientation to their practice, family therapists working as mediators draw upon their own theoretical orientations to inform their practice. Most family therapists use some version of family systems theory, which, rather than focusing on individuals, looks holistically at families as open systems in dynamic interaction. One prominent version of family systems therapy is called Bowen theory and is based on the works of Murray Bowen (2004; Brown, 1999; Regina, 2011). Another version is structural family therapy, based on the works of Salvador Minuchin (1974; Colapinto, 1982). In both of these approaches, therapists analyze the constellation of family relationships to identify dysfunctional patterns—described as "emotional triangles" in Bowen theory (Regina, 2011)—and then make use of various therapeutic techniques to help family members "restructure" (Colapinto, 1982) such patterns into healthier ways of relating. Mediators with these orientations typically meet with married couples in the process of divorce and seek to help them relate to each other more amicably as they engage in difficult negotiations about issues like child-custody arrangements (Saposnek, 2004).

Some mediators who are not therapists have similarly sought to move beyond the utilitarian assumptions of the problem-solving approach to mediation in order to address relationship issues between the parties and other emotional dimensions of disputes. Mediators with these concerns have offered several competing styles of mediation, such as "transformational mediation" (Baruch Bush & Folger, 2005; Della Noce et al., 2002; Spangler, 2003), "narrative mediation" (Winslade & Monk, 2001) and the "facework" approach to mediation (Littlejohn & Domenici, 2006). Mediators who use the

transformational approach de-emphasize the search for settlements and seek to focus instead on empowering the disputants, on helping them to recognize each other as persons, and on fostering social justice more generally (Baruch Bush & Folger, 2005). Mediators using the narrative-mediation approach look for "conflict stories" that disputants have created for themselves using wider cultural discourses. Such stories typically portray the individual as the aggrieved party and the other party as an aggressor. Mediators encourage disputants to "externalize" these stories of conflict, recognize evidence in their lives inconsistent with the stories, and then construct new stories for themselves that leave the conflict behind (Winslade & Monk, 2001). Mediators who take the facework approach seek to help disputants to save face by maintaining their image of dignity and self worth in the back-and-forth of conflict.

All of these alternative approaches to mediation have had ties to social scientific theories, in that they draw attention to the social contexts in which disputes take place, but none was explicitly constructed on the foundation of a psychological theory of conflict. The transformational approach (Baruch Bush & Folger, 2005) has been more sociological than psychological in its emphasis. The narrative approach was based on postmodern theories popular in the social sciences and humanities in the 1990s, including discourse analysis, the deconstruction of taken-for-granted assumptions, and a view of the social self that allows for multiple subjectivities (Winslade & Monk, 2001, pp. 41-47). The facework approach to mediation is based on Erving Goffman's theory of self-presentation (Littlejohn & Domenici, 2006, p. 228).

Herrman and her associates have applied social-science perspectives to mediation in yet another way by constructing a "big-picture" model of mediation that follows the conventions of causal models, the predominant method of quantitative research in the social sciences (Herrman, Hollett, & Gale, 2006). This model, however, with its dozens of variables arranged in a complex structure of statistical relationships, appears to be better suited as a tool for comparative research on mediation programs (Polkinghorn & McDermott, 2006) than as a guide for mediators to use in their practice. Winslade and Monk (2006), for instance, question the assumptions built into the model and discount its usefulness for understanding the narrative-mediation approach that they favor.

In sum, with so many different applications of mediation and mediators coming from so many different professional backgrounds, the practice of mediation cannot be said to have any unified theoretical base in a theory of how conflict works. Instead, the practice, or rather, practices of mediation have evolved from an eclectic mix of psychological and social scientific theories applied pragmatically by practitioners in the field. Recent research on mediator "styles" even suggests that the particular theoretical orientation to which mediators claim to adhere may not be a strong predictor of the ways they actually conduct their practice (Kressel et al., 2012). By contrast, MOL, the approach to psychological therapy that we seek to compare to these practices of mediation, grew directly out of the application of a psychological theory of conflict. It is to that topic we turn next.

# The Science and Practice of MOL Therapy

# **MOL Therapy in Practice**

Method of Levels (MOL) therapy was initially conceived in the 1950s by William T. Powers, the originator of Perceptual Control Theory (see Powers, 2009). In the 1990s a clinical psychologist, Timothy A. Carey, discovered the approach and worked with Powers to form the therapy as practiced today (Carey, 2006). MOL therapists have only two goals: (1) to help clients talk about a problem as they currently experience it, and (2) to ask about disruptions. Disruptions are any features of the client's speech and non-verbal behavior that may indicate a background thought, such as smiling, pauses, emphasis of certain words, changes in pace, or eye movements. A background thought is any experience (thought, mental image, impulse) that clients may perceive "at the back of their mind" or fleetingly, and that they are not currently putting into words. One of the unique features of MOL is that therapists have only these two goals, and therefore they avoid introducing any additional techniques or materials into the session, unless it is the most efficient way to achieve these goals at that moment. In nearly every instance, short, simple questions serve to meet these goals most efficiently, and so sessions progress with frequent two-way exchanges between therapist and client (Mansell et al., 2012).

Focusing on only these two goals, MOL therapists are thus able avoid the use of many of the therapeutic techniques common to other varieties of psychological counseling. They do not attempt to diagnose the client's particular psychological illness, and they instead argue for the "transdiagnostic" efficacy of their approach to therapy (Mansell et al., 2012; Mansell, Carey, & Tai, 2015). They do not probe into past behaviors or childhood experiences in order to ascertain the roots of psychological problems, except as clients themselves talk about these issues. They do not prescribe behavioral exercises for overcoming phobias or make any attempt to change personality patterns. In fact, MOL therapists act more like mediators than like psychotherapists of other varieties, in that they seek as far as possible to put control back into the hands of their clients rather than taking control themselves to fix the clients' problems. Furthermore, to further enable client control, and wherever possible, MOL therapists encourage clients to schedule their own visits rather than requiring them to appear for therapy on a set schedule. This approach appears to reduce waiting lists, reduce costly non-attendance to sessions, and improve efficiency—the therapeutic benefit per session (Carey & Spratt, 2009; Carey, Tai, & Stiles, 2013).

MOL has been applied to a wide range of problems and contexts, including insomnia (Grzegrzolka, McEvoy, & Mansell, 2019), mixed diagnoses in primary care (Carey, Carey, Mullan, Spratt, & Spratt, 2009) and secondary care (Carey et al., 2013), adolescents' mixed mental health difficulties in high schools (Churchman, Mansell, & Tai, 2019a), and early intervention services for psychosis (Griffiths et al., 2019a). In open trials within pragmatic primary care settings, accessing MOL has been associated with large

effect sizes for reductions in distress (Carey & Mullan, 2007; Carey et al., 2009; Cocklin et al., 2017). One open trial within a remote secondary care service found a large effect size, which achieved a greater improvement per session (efficiency ratio) than benchmarked studies (Carey et al., 2013). To date, two feasibility randomized controlled trials have been conducted comparing MOL to treatment-as-usual—one within a primary care service (Bird, Tai, Hamilton, & Mansell, 2013), and one for first-episode psychosis (Griffiths et al., 2019a). Both showed that MOL was highly acceptable to patients and found effects feasible to test with good retention rates. However, definite tests of efficacy against a control condition await larger trials.

In research on the mechanism of action in MOL therapy, quantitative studies have shown that, as predicted by PCT, the theory underlying the practice, the clients' minute-by-minute ratings of their control and talking freely relate closely to perceived helpfulness, even when accounting for the clients' perceptions of the therapeutic alliance (Cocklin et al., 2017). The active ingredients and client experience of MOL also appear consistent with PCT, as assessed using conversational analysis (Cannon, Meredith, Speer, & Mansell, 2019), coding of the depth and duration of awareness during MOL sessions (Higginson & Mansell, 2018), and qualitative analysis of interviews with clients across a variety of service contexts (Churchman, Mansell, Al-Nufoury, & Tai, 2019b; Griffiths, Mansell, Edge, Carey, & Peel, 2019b; Jenkins, Reid, Williams, Tai, & Huddy, 2019).

#### The Theory Behind MOL

The practice of MOL has this design because it is directly informed by a single theory, perceptual control theory (PCT) (Powers, 1973, 2005), which proposes that control is the essence of life, health and wellbeing (Carey, 2016). This theory entails that we vary our actions to control our perceptual input. According to PCT, control is a process that goes on automatically and continuously in all living things, and control happens through a circular process of perceiving an aspect of something that matters to us (e.g., maintaining a comfortable physical distance from a person we are talking to), comparing this with our goal, or "reference value" (e.g., staying around half a meter from the person), and acting as necessary to reduce any difference between perception and goal (e.g., moving closer or farther, depending on the current distance). While control is automatic and continuous, experimental data show that some control can happen entirely outside the awareness of people controlling their perceptions or others observing their actions (Mansell, Zink, & Curtis, 2019). In recent years, advances in research have supported a PCT model of behavior within diverse interdisciplinary fields, including neuroscience (Yin, 2014), ethology (Bell, 2014), organizational psychology (Vancouver & Scherbaum, 2008) and robotics (Young, 2017).

When psychological conflicts occur, they usually stem from goals much harder to achieve than just maintaining a comfortable distance from a conversational partner. According to MOL, people come to therapy because they feel that something in their lives

has gone seriously out of control. Thus, the purpose of therapy, as MOL mediators see it, is to help people restore control in their lives (Carey, 2008). Human beings have the ability to control many things in their lives, and to do so efficiently we organize the things we control into a hierarchy of perceptions. At the top of the hierarchy are our long-term ideal concepts of ourselves and the world around us (e.g., to live as a respectable person in a just world). In order to uphold these concepts we set principles (e.g., to be honest, to be kind), which in turn are maintained through programs and routines (e.g., to lend a friend some money), which are then implemented through a succession of goals at lower levels that ultimately help us adjust our actions continuously to strive to maintain our ideals (McClelland, 1994; Powers, 2011). William T. Powers proposed perceptual hierarchy of this kind in one of his earliest publications (Powers, Clark & McFarland, 1960a,b), and then elaborated upon it in later publications (e.g., Powers, 1998). Powers' hierarchy has been adopted within self-regulatory approaches to social, personality, organizational, and clinical psychology (e.g., Carver & Scheier, 1981; Austin & Vancouver, 1996), and experimental studies have tested its validity (e.g., Marken, Mansell, & Khatib, 2013).

PCT holds that this process of control can get blocked for a number of reasons, but the most pernicious is conflict. Conflict occurs when the same variable is simultaneously controlled by two independent control systems with different reference values for that variable (Powers, 1973). Thus, conflict can occur within an individual when the psychological control systems for various goals interfere with each other. Such conflict typically manifests itself as indecision, confusion and uncertainty, and it ultimately leads to a loss of control. For example, a person who desperately wants a new job, but is afraid of being rejected at the job interview, may experience conflict over whether to go to the interview. Or a traumatized client who wants to forget the past, but has been invited to a family event that includes the person responsible for the trauma, may experience conflict over whether or not to attend (Carey, 2008).

PCT proposes that the way to resolve such conflicts is by sustaining one's attention on the problem at hand for long enough to become aware of some additional, higher level goal that drives both of the conflicting alternatives (Powers et al., 1960b; Carey, 2006). When a person can achieve this perspective, the conflict can usually be reduced in the long run, typically through a trial-and-error process described as reorganization. This learning process has been shown in experimental studies (e.g., Robertson & Glines, 1985), and by means of computational models (e.g., Powers, 2008). For example, one's goals can often become "reorganized" as one expresses them in detail, in any context—art, writing, talking to a friend. MOL aims to expedite this process through conversations with the therapist. A client in two minds about a job interview may come to realize that behind both the choice of a job and the fear of rejection is the need to see oneself as a successful person. Thus, it is not an either-or decision—both come hand in hand. Traumatized clients may realize that attendance at any particular family event is less important in the long run than coming to

grips with their bad memories from the past, and if they can learn to do this at their own pace, they will be able to attend family events in the future (Mansell et al., 2012).

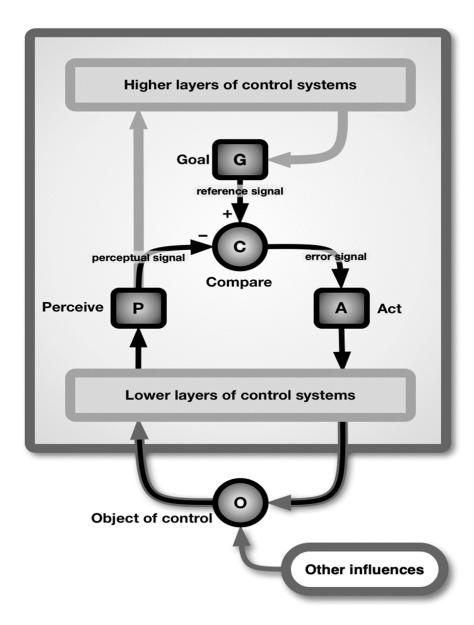
With this theory in mind, the rationale for the features of MOL practice becomes clear. The therapist does nothing other than help the client talk about the problem and notice disruptions, because those things can help clients to stay in control as they talk about their problems. Any attempt to suggest solutions would potentially involve the therapist's taking control away from the client. Moreover, a problem that emanates from a conflict within the client can only be identified when the client brings awareness to it and stays with it long enough to gain a new perspective that makes a difference. The therapist doesn't take one side or the other of the conflict, but helps the client shed light on both sides, in order to move to a broader perspective on what is driving the conflict and how to reduce it (Mansell et al., 2012).

### The Scientific Basis of MOL Therapy: Perceptual Control Theory

MOL therapy, as has just been described, has its foundation in PCT, a general theory of human behavior. To explain more about how MOL derives from PCT, we need to delve a little more deeply into the PCT view of how the human brain is structured. As we have said, PCT views behavior as a process of control, where we take action to make our perceptions match our goals. We also said that people have hierarchies of goals, so that to reach a higher-level goal, a person may need to accomplish a succession of lower-level goals. To go shopping, for instance, one might need to find car keys, put on a coat, go to a car, start the car, pull out into the street, and drive to a store, park the car, close and lock the car, and go inside the store. Each of those subordinate goals may entail a succession of even lower-level goals. To drive to a store, for instance, one may need to avoid collisions with other cars, make a succession of turns, obey traffic laws, etc.

PCT proposes that in the enormously complex structure of human brains, the billions of neural connections are organized into layers of control systems, including control systems for all the goals that a person might want to accomplish. Each control system, according to PCT, includes a neural signal representing a goal, a set of neural circuits that construct from sensory data a perception of what is currently happening with respect to that goal, a neural circuit that compares this perception with the goal and computes a signal equal to the difference between the two, and an action component that takes this signal and sends it as a command for action to the neural circuits that control the motor functions of the human body. These control systems work by means of a continuous feedback loop, where people take action to change things in their physical environments and get feedback via their perceptions about the effects of their actions on the things they want to change. In this view, the purpose of human action is to reduce the difference between goals—what people want—and their perceptions of what is currently happening with respect to these goals. In PCT, this reduction in the difference between goals and perceptions is called "control of perceptions" (Powers, 1973, 2005).

Figure 1 presents a simplified picture of how control systems work in human psychology, according to PCT. The figure depicts the feedback loop for a single control system somewhere in the middle of the brain's many layers of control systems. The large rectangle in the diagram stands for a person's brain and nervous system, and the rest of the diagram represents the physical environment. The geometric shapes inside the large rectangle represent circuits within the brain that perform neural processes, and the arrows inside the large rectangle stand for currents or flows of neural signals (Powers, 2005, p. 23).



*Figure 1*. A single control system in the context of a neural hierarchy (Adapted from Taylor, 2019, Figure 4.15)

The lower part of Figure 1, the area below the large rectangle, depicts the person's environment. The first thing to note in this part of the diagram is a circle with an O labeled "Object of Control." Depending on the kind of perception that the person is trying to control, this object of control might be some aspect of a physical object or a physical process, as when a person controls the position of an object by picking it up and moving it somewhere else. Alternatively, the goal could be something more abstract, as when a person seeks to make a good enough impression on a job interviewer to end up with a job offer.

The arrow leading from the large rectangle in Figure 1 to the object of control refers to the effects of the person's physical behavior on this object of control, whatever it is. The arrow leading back from the object of control to the large rectangle again refers to physical processes, like the transmission of light or sound, that provide the person with perceptual feedback about the current state of this object of control. In the case of a more abstract goal, like making a good impression on an interviewer, the right-hand arrow would refer to the things the person does to try to make a good impression, and the left-hand arrow, to the feedback the person gets on how well the interview is going. The diagram also shows "Other Influences" on the object of control. In PCT terms, these other influences are described as "disturbances." In a job interview, the disturbances might include anything from interruptions by a third person to physical discomfort in a room that is either too hot or too cold. The person acts to keep a perception in control by taking physical actions to counteract these disturbances, as best one can (Powers, 1973, 2005).

Control, as depicted in Figure 1, is a cyclic process involving both neural processes and physical feedback. The small rectangle with a P labeled "Perceive" on the left-hand side of the diagram stands for the neural processes that construct a perception of the object of control from the sensory data a person receives. For the middle-level perception depicted in the diagram, the figure shows neural signals coming up through the layers of lower-level control circuits responsible for constructing the various perceptual elements that form this moderately complex perception. This neural process generates a "perceptual signal," which is represented by the black arrow leading away from the rectangle with a P in Figure 1. The vertical gray arrow leading away from the same rectangle indicates that a copy of this perceptual signal is also sent upward to help form the increasingly complex perceptions constructed in the higher layers of the neural hierarchy (Powers, 1973, 2005).

The rectangle with the letter G in Figure 1 stands for a neural circuit that constructs the "reference signal" for the control system shown in the diagram. This circuit takes signals from higher layers of the neural hierarchy and combines them into a signal that indicates to what extent control of this perception is currently required for keeping those higher-level perceptions in control. This neural circuit has been given the label "Goal," because we can think of the reference signal as standing for the person's intention or goal, in the sense that the goal of the person's behavior when this control system is active is to

bring the perception of the object of control into line with the person's reference for it (Powers, 1973, 2005).

The perceptual signal and the reference signal, both shown as black arrows in Figure 1, come together at the circle with a C, which represents another neural circuit, one that constantly compares the perceptual signal to the reference signal and generates a third signal, described in PCT as an "error signal". The error signal is computed by taking the difference between the reference signal and perceptual signal, and it represents the extent to which the current perception misses the mark in comparison to the person's reference value for it. Whenever the perception doesn't match the reference, the resulting error signal activates yet another set of neural circuits (represented by the small rectangle with an A) that send signals downward in the neural hierarchy to lower layers of control systems. These signals provide instructions in the form of reference signals for control systems in the lower layers of the neural hierarchy involved in producing physical actions to counteract the effects of whatever might be disturbing the object of control. This action component of the control loop brings us back around again to the feedback component of the loop, the arrow that indicates the physical effects of the person's actions on the object of control (Powers, 1973, 2005).

An important thing to keep in mind about this model of human behavior is that the processes of cause and effect around the feedback loop do not result in a sequence of discrete responses to perceptual stimuli, as is the implicit assumption in most other psychological theories. Instead, everything in the feedback loop happens at once, so that people's behavior emerges as a continuous and continuously changing process. This is how most people experience their own perceptions and actions: as ongoing streams, rather than in discrete steps (Powers, 1992).

Furthermore, PCT holds that all of the layers of the neural hierarchy are active at the same time, so that control occurs at many different levels of perception simultaneously and mostly unconsciously. In the PCT view, we are conscious of only a small fraction of the perceptions we currently control. If you're currently sitting in a chair, for instance, you may be conscious of the experience of reading this article without paying any attention to the little postural adjustments your body constantly makes to maintain its upright position. (Have you begun to notice those minute bodily movements now that we've mentioned it?) Walking down a path, you may be thinking about your goal of going somewhere, but not paying attention to the control processes necessary for making any individual step. (Although if you happen to trip, your attention suddenly zooms in to avoiding a fall.) The PCT view is that our conscious attention can range to any level of the neural hierarchy, but our thoughts and attention tend to focus on perceptions that are difficult to keep in control (Powers, 1973, 2005).

## The Connections Between PCT and MOL Therapy

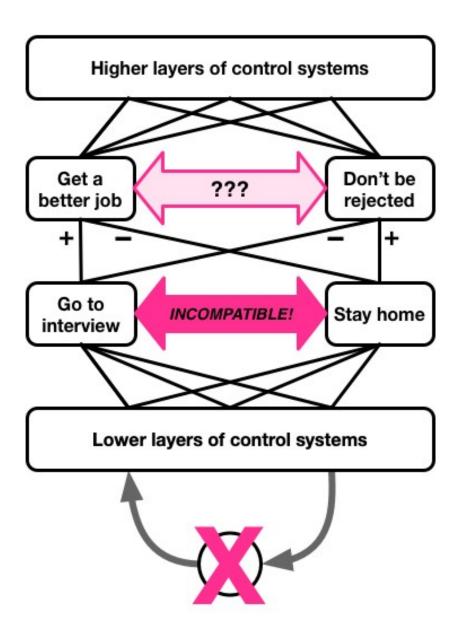
To explore the connections between this theory of perceptual control and MOL therapy, consider an example of how a counseling session might go. Suppose that a client has come in to talk to the therapist about her worry and indecision relating to an upcoming job interview. The mere thought of the interview is making her really tense, and she can't decide whether to go ahead with the interview or just call and cancel out. The therapist's questions about this problem help the client to go "up a level" (Powers 1973, p. 252, 2005, p. 264) in her thinking and articulate some of the more global goals that have led to her indecision about whether to go to the interview or not. On the one hand, she really wants a better job with more pay, and the job as advertised sounds a lot better than her current work. On the other hand, she hates to try hard for something and then be rejected, and she fears that a rejection from this prospective employer will further erode her self-confidence, which is already shaky enough.

Figure 2 presents a PCT analysis of the client's quandary. This figure depicts the connections between four control systems in two hierarchical layers of neural system, rather than the single control system depicted in Figure 1. In Figure 2, the representation of individual control systems has been simplified by using a single rectangle that names the control system's goal to stand for all of the system's neural components, including the circuits that carry out the perception, comparison, and action functions that are shown in Figure 1. Figure 2 also simplifies the overall picture by using single lines to stand for the two-way connections between the control systems in different layers: the connections transferring perceptual signals upward to control systems in higher layers of the neural hierarchy and receiving, in return, reference signals from those higher-level control systems.

In Figure 2, the client's initial conflict is depicted as an incompatibility between two control systems on the same level, one with the goal of going to the job interview, and the second with the goal of doing something (anything!) else. As Figure 2 indicates, these two goals are clearly incompatible. Figure 2 also includes arrows representing a feedback loop with the letter X over the object of control, a reminder that the ultimate reason for this conflict is that it is impossible to fulfill both goals at once in the physical environment. The client (her physical body) simply cannot be in two places at once. Nothing that the client does will satisfy both goals simultaneously.

Figure 2 also shows the two higher-level goals that the client articulates during the counseling session: the goal of getting a better job, and the goal of avoiding rejection. MOL therapists would regard these two goals as "up a level". They are longer-term goals, more closely related to the client's deep feelings than the practical decision of whether to go to the interview or not. Bringing these higher-level goals into consciousness, however, does not necessarily mitigate her internal conflict. As the plus and minus signs on the connections in Figure 2 indicate, the two goals have different practical consequences. For her to get a better job, it makes sense to go ahead with the job interview, and staying home

gets her nowhere. Staying home, though, reduces her chances of suffering the rejection that she might feel if she were to go to the interview and the prospective employer turned her down. Because the lower-level control systems receive contradictory reference signals, her best course of action remains unclear, which results in continued indecision and vacillation as she imagines first one outcome and then the other, or she imagines trying to resist other disturbances that might push her back and forth between the two (Mansell et al., 2012).



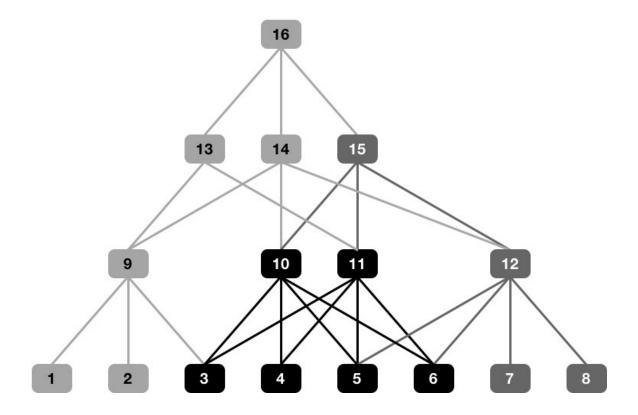
**<u>Figure 2.</u>** Conflict between control systems in a neural hierarchy

Encountering a dilemma like this, the MOL strategy is to continue to probe for yet higher-level perceptions, thoughts that will help the client gain even greater perspective on her inner conflict (Griffiths et al., 2019b). A higher-level perception that might come to mind is her ambition to be a successful person, as well as ideas about what success really means to her. Perhaps she can think of other jobs to apply for that might be easier to get, or she can imagine how to prepare so well for this interview that her chances of rejection are reduced. Perhaps a more important priority to insure her long-run success is to get some immediate help with overcoming her fear of rejection before trying to change jobs.

From the point of view of the MOL therapist, redirecting the client's attention away from the immediate conflict and toward higher-level perceptions can help to solve the problem in a variety of ways. First, the focus on a higher-level perception may help clients to set priorities for the lower-level perceptions in conflict, as they see which of the competing alternatives is more important for reaching this higher-level goal. Second, a focus on higher-level perceptions may bring to mind other ways to resolve the conflict, because higher-level perceptions open up alternative lines of action for people to stay in overall control.

Figure 3 illustrates this principle. The figure shows a group of closely connected perceptions controlled at four levels of the neural hierarchy. As in Figure 2, the little rectangles in Figure 3 stand for the whole control mechanism of each perceptual control system—including neural circuits that construct the perception from lower-level perceptions, that specify a perceptual goal by combining reference signals from higher-level perceptions, that compare the current perception with that goal, and that send the difference downward in the hierarchy as a reference signal for lower-level control systems. Also, just as in Figure 2, the connection lines in Figure 3 indicate two-way connections, with perceptual signals flowing upward and reference signals flowing downward.

In Figure 3, consider the two control systems numbered 10 and 11 on the second level of the hierarchy. These two control systems might easily come into conflict, because they are composed from and depend upon overlapping sets of lower-level perceptions (including the perceptions numbered 3, 4, 5 and 6 shown in the diagram). Systems 10 and 11 can create conflict if they send incompatible reference signals to these lower-level systems. Suppose that a client begins a counseling session by talking about a conflict between control systems 10 and 11. If the counselor can encourage the client focus her thoughts up a level, to perception 15—a perception with connections to both 10 and 11—it could help in several ways. For one thing, the reference signals sent downward by system 15 to systems 10 and 11 could help to sort out her priorities for them, especially if one or the other of these is clearly more important for keeping perception 15 in control. Therapists have found that sometimes when their attention shifts to higher-level goals, clients can sometimes quickly decide which of two conflicting lower-level perceptions is more important to keep in control (Mansel et al., 2012).



*Figure 3*. Pyramids of connection between control systems at different hierarchical levels (Adapted from Taylor, 2019, Figure 4.18)

Another benefit of focusing on this higher-level perception is that it opens up some new behavioral possibilities for the client. Perception 15, as a higher-level perception depends not only on perceptions 10 and 11 to stay in control, but also on other perceptions at that level, such as 12, and indirectly on yet lower-level perceptions like 7 and 8. If the client can keep 15 in control by relying mainly on 7 and 8, the conflict between 10 and 11 becomes less relevant. And if the client goes up yet another level in her thinking, to perception 16, it brings additional possibilities into play, including perceptions 13 and 14 with their contributing lower-level system, 9, which connects on a yet lower level to systems 1, 2 and, 3.

Moreover, because control system 16 connects on the next lower level to control systems 13, 14, as well as 15, as shown in Figure 3, all of which send reference signals to systems 10 and 11, the addition of reference signals from 13 and 14 might be sufficient to nudge 10 and 11 out of conflict in which the two control systems are caught. The general principle is that the higher the level of the hierarchy, the larger the pyramids of lower-level perceptions to which control systems can connect. Along with the increased complexity of high-level perceptions comes an increased flexibility—additional behavioral options for keeping the perceptions in control. In short, the higher the level of a goal, the more means

are available for reaching the goal (Taylor, 2019). Thus, a refocus of attention on high-level perceptions can help people find ways to extricate themselves from lower-level conflicts.

Focusing attention on higher-level perceptions has yet another possible benefit for a client caught in a conflict. The spotlight of sustained attention tends to speed up a reorganization process in the brain, which helps the client develop new ways of perceiving the world and thus more insight into her own life. In the PCT view, brains retain considerable plasticity beyond childhood and into adult life. As people have new experiences, their brains continue to undergo a process of reorganization of neural connections: some connections between neurons get weaker and others, stronger. New perceptions are created, according to PCT, when this reorganization of neural connections results in control systems that combine lower-level perceptions in new ways (Powers, 1973, 2005).

Reorganization also happens when the weights of neural connections between control systems at different levels change enough to redefine an existing perception, so that a higher-level control system connects to a different set of lower-level control systems than it did before (Powers, 1973, 2005). Reorganization thus gives a person new perceptual tools to interact with the world. None of these changes in perception can be retained without some repetition and practice. The basic principle is that repetition strengthens neural connections, while disuse weakens them (Taylor, 2019). One value of the MOL technique of encouraging the client to focus attention on higher-level perceptions, then, is that it gives the client a chance to capture fleeting thoughts and think through their implications, increasing the probability that she will be able to retain some new way of perceiving the conflict before her.

Finally, a benefit of the MOL technique of probing for higher-level perceptions is that by removing attention from the immediate conflict, one can interrupt, or at least slow down, the process of escalation of tension that ordinarily occurs during conflicts. Simulations of conflicts between control systems have shown that conflicts naturally escalate, and escalation processes tend to take place more rapidly than relaxation processes do (McClelland, 2004, 2014). In neural hierarchies, the lower the level of perceptions in the hierarchy, the more quickly conflicts between perceptions at that level tend to escalate. The reason is that perceptions at higher levels naturally take longer to come into control (Powers, 1973, 2005). This difference in speed of control at different perceptual levels arises because higher-level perceptions are constructed from lower-level perceptions, and thus to control a higher-level perception a person must first bring its lower-level components in control. Because the control of higher-level perceptions requires longer time horizons, control at that level is less subject to the immediate impulses that lead to escalation and thus allows more time for reorganization and retention of new ways of thinking about the problem at hand.

Thus, the MOL technique of helping clients to focus their thoughts up a level from the immediate conflict provides several ways for them to resolve their own problems: by figuring out their priorities, considering new lines of action, reorganizing their perceptions of their situation, or just slowing down the escalation of their tensions. This MOL technique works because it has a solid grounding, as we have shown, in the scientific understanding of conflict and control that MOL practitioners have gained from PCT. In the next sections of this article, we offer a closer comparison of the practice of MOL therapy with that of mediators, and we ask whether the PCT view of conflict also has relevance to the kinds of interpersonal conflicts that mediators seek to help resolve.

# Comparing the Approaches of Practitioners in Mediation and MOL Therapy

## Similarities Between the Two Types of Practice

Despite differences between the kinds of conflicts dealt with by mediators and therapists using MOL techniques, the two types of practice, when examined closely, have several similarities. For one thing, both types of practitioners work hard to make sure that the two sides of conflicts are articulated in detail. Mediators allow time for both of the disputing parties to tell their own sides of the story and to explain their thoughts and feelings about what has happened. MOL practitioners encourage their clients to explore both sides of the conflicts they confront and to describe in detail the plusses and minuses of both of their conflicting goals, as well as their feelings about the two. In mediation sessions, mediators seek to understand the terms of the conflict by listening intently as disputants tell their stories and asking questions to clarify their perceptions of events. Similarly, MOL therapists adopt an attitude of intense curiosity toward the conflicted thoughts and feelings of a client, inquiring in detail about both of the client's conflicting goals and asking questions about any disruptions in the narrative, such as, "What came into your mind when you paused just now?" (Mansell et al., 2012, p. 81). For both types of practitioners, the purpose of this active listening and close questioning is not for the practitioner to find a solution to the problem in question, but rather to help the parties in conflict understand their problems and issues more fully and thus begin to find their own solutions.

Another similarity between the two types of practice is that mediators, like MOL therapists, strive for strict neutrality in their approach to conflicts, taking neither one side nor the other, but leaving it entirely up to the parties experiencing the conflict to find possible solutions. In order to help parties in conflict to find their own solutions, mediators use techniques designed to turn their clients' attention away from too intense a focus on the problem at hand and to redirect it to broader considerations. In mediations where both parties are present, the usual ground rules specify that the disputants address their remarks to the mediator and that only one person can have the floor at a time. Disputants may be asked sit on one side of a table facing the mediator on the other side, so that their eye

contact will be with the mediator, not the other disputant, when they make their remarks. Mediators also ask one disputant to tell his or her story in full before giving the other a turn to speak (Garcia, 1995). This formal structuring of the mediation slows down the pace of the interaction and disrupts the back-and-forth pattern of argumentation typical of two-person disputes, thus making it less likely that the dispute will continue to escalate during the session (Garcia, 1991). Moreover, the opportunity to interact with an unbiased outsider who is willing to give them a fair hearing may help disputants to view their own conflict from a more dispassionate perspective than they have previously done.

After both disputants have had a chance to tell their stories, mediators often encourage the disputants to brainstorm possible solutions, again widening their horizons beyond the boundaries of the dispute as they have defined it for themselves. Mediators encourage disputants to reframe their perceptions of disputes and seek common ground with their opponents, thus looking for things they both can agree on. Finally, mediators may encourage disputants to appeal to community norms to help structure a solution, rather than focusing on how to get the better of the opponent. In all of these ways, the techniques of mediation are designed to take disputants out of the grip of an escalating conflict and give them instead the perspective they need to find other ways to solve their problems.

Similarly, the techniques used by MOL therapists are designed to encourage clients to find new perspectives on their conflicts, rather than remaining mired in the issues and feelings that immediately present themselves (Griffiths et al., 2019b). The therapist's questions about disruptions in a client's narrative flow are intended to catch moments at which clients look at their presenting problem from some new and more inclusive angle of thought, and by going "up a level" take into account things they hadn't previously considered.

Overall, the basic approaches taken by mediators and MOL therapists toward their clients' conflicts have some striking similarities. Adopting a strictly neutral stance toward the conflict itself, both types of practitioners seek to hear each side of the conflict fully. But then instead of turning their clients' attention further inward toward rehearsing the conflict over and over, they seek to widen their clients' perceptions of the conflict to take in a more inclusive view, either by encouraging clients to regard their conflicts in more dispassionate perspectives, as mediators do, or by encouraging their clients to focus their attention on their more global goals, as MOL therapists do.

#### Some Differences Between the Two Types of Practice

In spite of the many similarities in their approaches to conflict, the work of mediators differs from the work of MOL therapists in some important respects. In general, the two-party conflicts dealt with by mediators are more complex than the internal conflicts encountered in individual therapy. The complexity is greater in mediation sessions, because disputants (and mediators, as well!) come to the table with their own internal conflicts, which can add layers of complexity to a two-party contest, so that finding a resolution to

the immediate quarrel between two disputants may not be sufficient to lower their emotional tension. And by the nature of social interactions, each party has less control of the joint outcome than individuals ordinarily have in conducting their own affairs.

In some versions of mediation, practitioners turn to theoretical perspectives to take the social complexities of conflicts into account. Mediators using the "transformational" style of mediation (Baruch Bush & Folger, 2005) encourage disputants to recognize their opponents as people like themselves and to consider the situation from their opponents' point of view. Mediators taking the "narrative mediation" approach (Winslade & Monk, 2001) seek to help disputants rewrite the script of their interactions with opponents by removing implicit story lines that may cast themselves as heroes or their opponents as villains. Many mediators who are family therapists evaluate conflicts between members in terms of the interactional dynamics of the family unit. The biggest contrast, however, between the practice of mediation—even in these more theoretically informed versions and MOL therapy is the extent to which the techniques used by practitioners are clearly founded on a psychological theory of conflict. Perceptual Control Theory, the theoretical foundation of MOL therapy, offers a rigorous definition of what conflict is and how it works, and MOL therapists employ techniques that derive logically from that theory. In the next section, we will examine how the PCT definition of conflict and some aspects of the basic MOL might apply, as well, to the kinds of interpersonal conflicts dealt with by mediators.

## A PCT View of the Dynamics of Interpersonal Conflict

Figure 4, like Figure 2, presents a PCT analysis of a conflict, although this time the diagram represents a conflict between two people, rather than a conflict internal to a single individual. The two disputants shown in Figure 4 are labeled Party A and Party B, and, as in Figure 2 the large rectangles offer a highly simplified view of the neural hierarchies of the two individuals. The smaller rectangles inside the large rectangles of Figure 4 represent the control systems for perceptions at various levels of the two people's neural hierarchies, and, as in Figure 2, the lines connecting the smaller rectangles stand for two-way connections that include reference signals flowing downward in the hierarchy and perceptual signals flowing upward.

Two of the smaller rectangles in Figure 4, labeled A's position and B's position, represent the perceptions that define the conflicting bargaining positions of the two disputants. An arrow indicates that these two positions are incompatible, because no state of affairs in the two disputants' shared environmental reality will allow both of them simultaneously to control their perceptions in line with their own bargaining positions, as is also indicated by an X on the circle below the large rectangles. Mediators sometimes describe this environmental state of affairs as the *stakes* of the conflict, the environmental reality that the two disputants are fighting over (McEwen & Milburn, 1993).

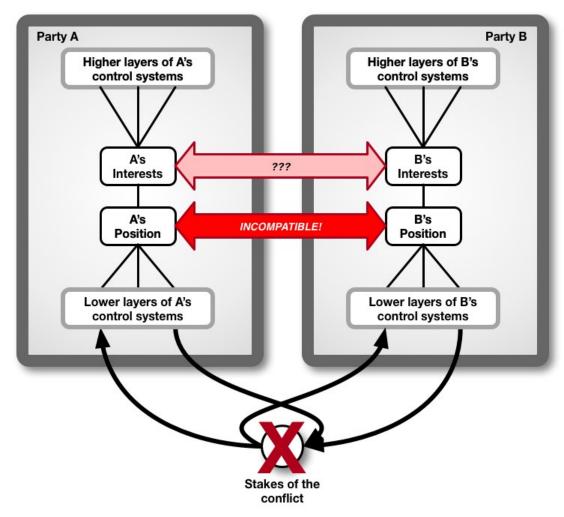


Figure 4. PCT analysis of a two-party conflict

Another pair of rectangles in Figure 4 is labeled A's interests and B's interests, respectively. The term *interests* here refers not to a single perception but to a set of perceptions connected with the individual's long-term wellbeing. As we have noted, one way that mediators try to reframe disputants' perceptions of the conflict is to direct their attention toward consideration of their long-term interests, and away from their immediate bargaining positions. In effect, mediators make the same move as MOL-therapists, encouraging their clients to go "up a level" in their thinking to perceptions that are higher in the neural hierarchy and thus wider in scope than the narrowly focused bargaining positions that form the nub of the conflict.

As Figure 4 indicates, the disputants may have interests in common with each other or may not, so focusing on interests may sometimes help them to resolve the conflict but is not guaranteed to open up the possibility of a mutually satisfactory settlement. In the language of PCT, it may be necessary to find ways for disputants to keep going up a level, as MOL therapists do when they ask questions about telltale breaks in a client's narrative

stream in order to pursue lines of thinking that enable clients to consider their problems from some broader perspective.

Another method of reframing a conflict that is commonly cited by mediators (e.g., Kovach, 2005) is the need to preserve an ongoing social relationship between the disputants. Disputes serious enough to call for mediation are more likely to arise between people with social relationships than between strangers, simply because people in relationships interact more often with each other. And when relationships have a history, disputes between people may get emotionally intense, as for instance in the case of family disputes about child custody. If disputants can pause to think that they may want to continue interacting with their opponent in the future, they may feel some added incentive to be flexible in finding a mutually acceptable solution that will keep the dispute from dragging on and on.

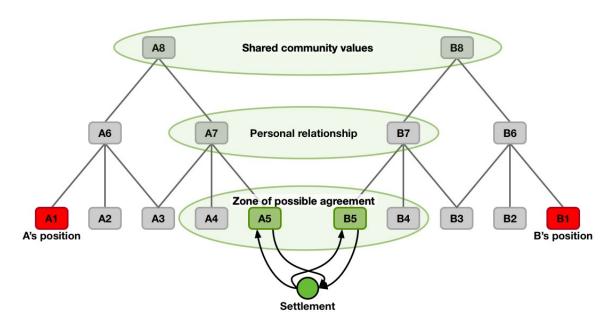
Another high-level concern often lurking in the minds of disputants is the protection of their own self-respect. Disputes frequently gain an extra emotional charge when people feel that others have failed to offer them the respect due to them as people, and this disturbance to their perception of self worth may motivate them to display rigid opposition to the other disputant. When disputants feel that they have not been treated as someone worthy of respect, from the PCT perspective this is a relationship issue, not so much the relationship between the disputants themselves as their relationship to the broader community.

If respect is an issue, it makes sense for mediators to insist on ground rules that call for civil exchanges between the disputants. Mediators can also act as stand-ins for the broader community by listening respectfully to disputants' stories and thus tacitly reassuring disputants that they are valued as members of the community (Littlejohn & Domenici, 2006). In disputes between people from different cultural communities, such as peace negotiations between warring parties, successful mediators work to craft agreements that allow the negotiators to save face with their own communities (Ting-Toomey & Kurogi, 1998). If disputants can find ways to maintain their self-respect without sticking to rigidly extreme bargaining positions, the chances for an agreement are increased.

Finally, encouraging disputants to appeal to community norms and standards when seeking for agreements is another way that mediators can reframe disputes to help disputants shift their focus from the immediate conflict to take in the perspective the wider community. In all these ways, mediators can prod their clients to go up a level in their thinking, to high-level perceptions of personal identity as a community member whose right to be respected is balanced by obligations to others. More broadly, any shifts in perspective that allow disputants step out of the role of aggrieved combatant and into other roles they may play in their lives are likely to increase the chances of finding some mutually agreeable solution to the dispute (Bodtker & Jameson, 1997; Mayer, 2000).

Figure 5 can help us sum up this PCT analysis of two-person conflicts. Figure 5, like Figure 3, is a highly simplified depiction of groups of closely connected perceptions

that are controlled at different perceptual levels. Figure 5, however, depicts the perceptions of two individuals, not a single individual. The perceptions in the pyramid on the left, labeled A1 to A8, are those of one individual, while the perceptions on the right, labeled B1 to B8, belong to the second individual. As in Figure 3, the small rectangles in Figure 5 stand for the whole control mechanism of each perceptual control system—including circuits with perceptual, reference, and error signals—and the lines connecting the small rectangles indicate the two-way connections between the control systems at different levels.



*Figure 5*. Pyramids of connection in a two-party conflict

In Figure 5, first notice the two perceptions shaded in red, A5 and B5, which indicate the disputants' initial bargaining positions, each disputant's most preferred outcome for the conflict. Because the disputants are in conflict, their differing perceptions specify outcomes that are incompatible in their shared reality, as Figure 4 showed. The search for a settlement, then, becomes the search for an alternative set of perceptions relating to the stakes of the conflict that the two participants can control without creating conflict between them.

The pyramids of connected perceptions in Figure 5 show how going up a level in the disputants' thinking can bring into play other lines of action, beyond the incompatible options contained in their original bargaining positions. In particular, perceptions A5 and B5, shaded in green, would allow the disputants to reach a settlement agreeable to both, or, in other words, an outcome in which the participants can simultaneously control their own

perceptions without further conflict. A single settlement need not be the only possibility. Scholars of negotiation and mediation talk about a "zone of possible agreement" that includes a range of possible outcomes, any of which is acceptable to both parties (Fisher et al., 2011). In Figure 5, the green oval taking in perceptions A4 and B4, as well as A5 and B5, suggests a zone of possible agreement that could include other potential settlements, perceptions of possible outcomes that the two parties could control compatibly.

Going up a level in Figure 5, we find perceptions A7 and B7, which could be the two parties' perceptions of personal relationship between them. As noted above, mediators sometimes try to promote flexibility by encouraging disputants to pay attention to how the dispute can affect their ongoing relationship. Going up yet another level, we see perceptions A8 and B8, which Figure 5 labels as shared community values. Another set of perceptions at this high level might be the shared norms to which disputants can appeal in crafting settlements that can be seen as fair to both sides. Yet another set of these high-level perceptions might be the disputants' social identities as members of a common community.

In all of these cases, the fact that disputants recognize that they share some similar high-level perceptions—common ground, as mediators sometimes call it—increases the chance of their finding compatible lines of concrete action to resolve the conflict. And whether or not the disputants' shift of focus to higher-level perceptions helps to reveal any immediate solutions, going up a level may have other benefits for the same reasons that we enumerated in our discussion of MOL therapy. It can help disputants recalibrate their priorities, slow down their escalation of the conflict, and even promote the reorganization of their perceptions relating to the conflict, as the disputants may, for instance, come to see their opponents and themselves in new ways (Baruch Bush & Folger, 2005) or revise the story that they've been telling themselves to make sense of the conflict (Winslade & Monk, 2001).

Although we refer to these high-level perceptions as *shared*, we do not mean to imply that the perceptions held by the disputants are necessarily identical. From a PCT perspective, when two or more parties control similar perceptions of the same object of control (the same aspect of a shared environment), it is described as "collective control" (McClelland, 2004, 2014, in press). Collective control allows people with somewhat differing perceptions of their shared environment to act together, with results that, although they may not match of the participants' references for the outcome of the control process, will have a greater impact on their common environment than any individual could accomplish independently. In collective control, when people disagree sharply about the preferred outcome, the result is conflict, and, in fact, from a PCT perspective conflict can be defined as collective control in which the parties involved have different references for the outcome of their joint actions (McClelland, 2014). But as long as the references held by participants in collective control are reasonably similar, the resulting conflicts can usually be handled without too much trouble, and cooperative action can ensue. The

important point is that people working cooperatively do not need to have exactly the same perceptions of what they are doing in order to work together in a mostly cooperative way.

In particular, to resolve their dispute the opposing parties need not share any perceptions at all except the perception that the settlement they have reached is acceptable to them both. Furthermore, they need not have exactly the same perception of what the settlement says and implies. The only requirement is that the actions they take in control of their own perceptions of the settlement are sufficiently compatible with the other party's perceptions of what should happen, so as not to cause further conflict. In a sense, good settlements, like exchanges more generally (Taylor, 2019), depend on the different perceptions of the two parties, with each side believing they have actually gotten the better of the bargain. An illustrative story commonly retold by mediators is of a dispute between two children over who should have an orange, which was easy to resolve when they realized that one just wanted to use the rind, while the other wanted to eat the fruit inside (Fisher et al., 2011).

While this description of some ways that one can apply PCT to two-party conflicts has by no means been exhaustive, the point we want to make is that PCT offers mediators a new and useful perspective for putting a coherent theoretical framework around their current practices and thinking about how these practices could be improved. The theory of conflict that provides the foundation of MOL therapy for dealing with inner conflicts appears to be equally applicable to understanding the interpersonal conflicts that mediators seek to resolve.

#### **DISCUSSION**

We have made the case that mediation and MOL could utilize the same theoretical framework – namely PCT. We now turn to the implications for practice. Starting with aspects of MOL that might be useful to mediators, we focus particularly on techniques of maximising client control and momentary awareness.

MOL practitioners try to "keep out of the way" of their clients, which means letting clients take the lead in what to talk about and asking only brief, focused questions, often using the client's own language, to enable clients to explore their problems further and in more detail. MOL practitioners do not attempt to "take the stage" with their own suggestions, advice, or interpretations. Clients receiving MOL therapy report that this feature is at the heart of its appeal, because it enables them to feel in control of the session and helps them to sustain awareness on the issue at hand (Griffiths et al., 2019b). Mediators might find it useful to adopt similar techniques, since disputants often already feel manipulated by the other party, and it cannot help if they feel manipulated by the mediator, too (Garcia et al., 2002). When both parties are present in the mediation, however,

mediators of course will continue to have a responsibility to discourage the kinds of language or direct attacks on the opponent that might escalate the conflict (Garcia, 1991).

MOL practitioners also focus on the present moment, looking for disruptions in the client's dialogue to catch background thoughts that may help them explore the problem further and shift to higher level goals. While mediators are not currently trained to use this approach, without it they may miss elements relevant to the conflict between the two parties that could only be revealed by paying close attention to fleeting thoughts. A key skill of MOL is to balance this encouragement to reveal background thoughts with the caveat that disclosure is not expected. Mediators might find it best to use this approach sparingly when both parties are present, but, depending on the client, they could use it extensively in private to help disputants explore and identify whether they are in fact in two minds about what they want from the other party, and to identify their overarching goals — what they really want to get out of the mediation.

The overlap between mediation and MOL may also have benefits for the practice of MOL. While mediators must be alert to the social dimensions of conflict and often work to help resolve interpersonal conflicts directly, with both clients in the room, MOL therapists work with individuals and may not see interpersonal conflicts as an important focus. Yet MOL mediators sometimes encounter situations in which it is hard for a client to effect change without depending on another person, even if they have resolved their own internal conflicts. This other person often holds a position of power over the client, such as children with their parents, psychiatric inpatients with ward staff, and employees with their employers. In these contexts, it may be helpful to bring in some aspects of mediation.

The internal conflicts produced in these kinds of tense social situations are a result of interpersonal conflict. Here, the client's internal conflict is likely to take the form of a choice between a preferred line of action that has been blocked by the actions of the other person versus some less attractive option that is possible but disagreeable for other reasons. As long as the other party, by controlling his or her own perceptions, continues to make the client's preferred option impossible in their shared environment, clients are caught in an internal dilemma of how to get what they want without antagonizing the other person. And even when there is no opposing party working against the preferences of the client, the client's internal conflict may sometimes take the form of a dispute between the internalized voices of some significant other person (parent, partner, caretaker, or boss) versus the client's own impulses to do things that the other person might oppose.

MOL naturally encourages many of the stances that are advised explicitly in mediation: to focus on the problem rather than the person, to be open to new perspectives on a problem, and to shift awareness to higher-level goals. Such goals are often shared with the other person with whom one is in conflict, or shared with the wider community. Despite the fact that MOL implicitly embodies many mediation strategies, clients who identify interpersonal conflict as at the heart of their mental health difficulties may benefit from a separate group course, illustrated material, or an online course that is informed by these

mediation strategies. There is a precedent for this. At present, MOL is sometimes complemented by other PCT-informed interventions. For example, the Take Control Course (TCC) is a six-session group course that uses experiential exercises and interactive questioning to explain the principles of PCT to people with common mental health problems (Morris et al., 2018). The TCC includes material on managing conflicts with other people, in which the facilitators illustrate how people in conflict can have a shared goal at a higher level, just as we explain in the current article. It is proposed that bringing awareness to these potential higher-level goals can eventually bring about resolution of the conflict through reorganisation.

MOL mediators may also find ways to attend more closely to the interpersonal dimensions of their clients' conflicts, without compromising the elegant simplicity of their therapeutic technique. When a client's narrative turns to conflicts with other people, therapists might exhibit some extra curiosity about the client's perceptions of the person blocking their way, as well as their perceptions of the opponent's perceptions. If therapists can help clients to go up a level by imagining their opponents' perceptions in these interpersonal clashes, clients may come to recognize the opponent as a person with needs and emotions like their own, which would fulfill one of the objectives of mediators using the "transformational" approach (Baruch Bush & Folger, 2005).

Another type of up-a-level perception that MOL practitioners could seek to elicit is of the culturally stereotyped "stories" clients tell themselves to make sense of their clashes with other people. If clients can begin to examine the roles they assign to themselves and other people in those stories, it may help them to reorganize their perceptions of the situation and start telling themselves stories with different story lines. This kind of revision of personal history is one of the objectives of mediators who take the "narrative-mediation" approach (Winslade & Monk, 2001). By helping clients in these ways to gain perspective on their conflicts with others in their life, MOL therapy might be a way to empower them to be more proactive about working with their opponents to mitigate these conflicts.

Finally, both MOL practitioners and mediators would do well to keep in mind the ways that internal and external conflicts can interrelate. External conflicts often generate internal conflicts, as we have just noted, and internal conflicts can energize external conflicts. Unless protagonists *feel* the effects of an interpersonal conflict internally, the conflict is psychologically meaningless to them. Thus, people experience external conflicts through the lens of internal conflict. In conflicts between people with greatly different amounts of power, more powerful parties can come much closer to making the environment they share with the other party match their own references than weaker parties can (McClelland, 2014), and we can define power from the PCT perspective as that ability to control perceptions, that is, to make one's own physical environment, as perceived, conform to one's references.

A chronic inability to control one's perceptions, according to PCT, is experienced internally as psychological distress and even physical pain (Powers, 2005). Consequently,

conflicts between more powerful and less powerful parties are likely to be felt more keenly by the less powerful, because they cannot control their own perceptions, while the more powerful may barely notice, depending on the power differential. PCT suggests that an inability to control perceptions shifts the focus of our conscious attention to the perceptions that are out of control, whereas the control of perceptions easily kept in control can be largely unconscious (Powers, 1973, 2005).

So it can easily happen that powerful parties run roughshod over the preferences and needs of the less powerful, while remaining nearly oblivious of the conflict themselves. Even if they do notice the conflict, they may regard the opponent's resistance as little more than a minor annoyance, requiring only the minimal effort needed to stay in control. When political groups are struggling with more powerful adversaries and turn to nonviolent resistance campaigns, or even to violence and terrorism, their objective is ordinarily to make the more powerful party start feeling increased pain and thus to bring them to the bargaining table. And we can be sure that if two parties are both willing to submit a dispute between them to mediation, both have experienced internal conflicts as a result of actions by the other party that have interfered with their own control of perceptions.

Coercion, as a technique of interpersonal control, relies on the same link between external conflict and internal conflict. Coercion occurs when one party threatens to take actions that will make it impossible for the other party to control some valued perception, in order to force the other party do something they don't want to do (McClelland, 1994), thus creating an internal conflict: "Do what I say, or I'll harm your child." The coercer calculates that the other party will regard the pain inflicted from having to follow directions as less than the pain felt if the threat is carried out. People in positions of authority frequently seek to control the behavior of their underlings by relying explicitly or implicitly on such coercive bargains: "If you don't clean your room, I won't give you your allowance." As this example suggests, even an attempt to use rewards to control another person's behavior can feel coercive, because of the veiled threat to withhold the reward if the other person does not comply (Kohn, 1993). Thus, it is no wonder that clients coming to therapists bring inner conflicts that stem from their interactions with the authority figures in their life. Mediators may have to deal with the fallout of coercive tactics, too, when disputants have tried to get the better of each other by hard bargaining and threats.

When people feel their lives are out of control, they sometimes try to use these coercive tactics on themselves, resolving to punish themselves for overstepping the line or reward themselves later for good behavior. In the PCT view, these efforts at self-control can be described as "arbitrary control" (Higginson, Mansell, & Wood, 2011), which includes "attempts to make behavior conform to one set of goals without regard to other goals (and control systems) that may already be controlling that behavior" (Powers, 2005, p. 271). The problem with arbitrary control, beyond the fact that it requires one to embrace one's own internal conflicts in the hope of regaining balance, is that it leads to rigidity of behavior, where the individual continues to pursue stereotyped lines of behavior even when

circumstances might make it inappropriate or self-defeating. With clients who resort to arbitrary control, the goal of MOL practitioners is to help them gain more flexibility in behavior by going up a level or several levels in their thinking to find overarching perceptions that, as we have shown in Figure 3, open up alternative lines of action that will allow clients to maintain control of important perceptions without getting mired in lower-level conflicts (Higginson et al., 2011).

In sum, the dynamics of intrapersonal and interpersonal conflicts have many similarities, and the two kinds of conflict often go hand in hand in people's lives. We have shown how perceptual control theory can illuminate the dynamics of both internal and external conflicts and how strategies for resolving both kinds of conflicts involve the same dynamic process of finding and controlling up-a-level perceptions that allow for more flexibility in behavior. Furthermore, the process of going up a level may also help people to reorganize their perceptions in ways that help them to transcend the conflicts that have brought them to practitioners like mediators and MOL therapists. We conclude that these two types of practices can learn from each other and that PCT provides a highly useful theoretical foundation for both.

Having shown in this article how the theory of conflict provided by PCT can unite two disparate fields in the social sciences under a single umbrella, we see an even wider potential for PCT to serve as an integrating theory among other fields in the social sciences. PCT is not merely a general theory of conflict. It is also a general theory of the behavior of living organisms, one that, when applied to humans, combines a humanistic perspective on the autonomy of the individual with a commitment to a scientifically testable model of purposive action. The principles of control, conflict, and reorganization, which are precisely operationalized by PCT, apply equally well in many different domains of social science. Significant programs of research using PCT have sprung up in organizational psychology (Vancouver, Weinhardt, & Schmidt, 2010), experimental psychology (Marken 2014), child development (Plooij, & van de Rijt-Plooij, 1990), social and personality psychology (Austin & Vancouver, 1996), political psychology (D'Agostino, 2018), human-computer interaction (Moore & Nicolao, 2017), and systems science applied to theatre and film (Ryland & Scholte, 2019). Thus, the potential for integration across these disciplines, via PCT, is profound, not to mention the potential for integration of these fields with other life sciences and the arts and humanities.

This integrative potential of PCT is the focus of a new collection, *The Interdisciplinary Handbook of Perceptual Control Theory: Living Control Systems IV* (Mansell, in press). In this book, McClelland (in press) offers an entirely new way of conceptualizing the foundational assumptions of the social sciences, by showing how broad structural and cultural patterns of social behavior can emerge from the collective behavior of individuals seeking only to control their own unique perceptions in the context of shared physical and social environments. Ultimately, we think, PCT opens the possibility of

creating a common language of the social sciences, a "Rosetta Stone" that promises to bring the many different domains of the social sciences into a coherent whole.

## **Acknowledgments:**

The authors thank Brian D'Agostino, Craig McEwen, Richard Pfau, and reviewers for the *Journal of Integrated Social Sciences* for their comments on earlier drafts of this paper.

#### **REFERENCES**

- Alfini, J. J., Press, S. B., Sternlight, J. R., & Stulberg, J. B. (2006). *Mediation theory and practice*. LexisNexis.
- Amy, D. J. (1983). The politics of environmental mediation. *Ecology Law Quarterly*, 11(1), 1-19.
- Austin, J. T., & Vancouver, J. B. (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin*, *120*(3), 338-375.
- Barker, J. (1996). International mediation—a better alternative for the resolution of commercial disputes: Guidelines for a U.S. negotiator involved in an international commercial mediation with Mexicans. *Loyola of Los Angeles International and Comparative Law Review*, 19, 1-55. http://digitalcommons.lmu.edu/ilr/vol19/iss1/1
- Baruch Bush, R. A., & Folger, J. P. (2005). *The promise of mediation: The transformative approach to conflict* (Rev. ed.). San Francisco: Jossey-Bass.
- Baumann, J., & Clayton, G. (2017). Mediation in violent conflict. CSS Analyses in Security Policy, No. 211. https://doi.org/10.3929/ethz-b-000169653
- Bell, H. C. (2014). Behavioral variability in the service of constancy. *International Journal of Comparative Psychology*, 27, 338-360.
- Bird, T., Tai, S., Hamilton, A., & Mansell, W. (2013). A pilot randomized controlled trial of Method of Levels as a transdiagnostic intervention within a primary care psychology service. *Paper presented at the British Association of Behavioural and Cognitive Psychotherapies Annual Conference, Imperial College, London.*
- Bodtker, A. M., & Jameson, J. K. (1997). Mediation as mutual influence: Reexamining the use of framing and reframing. *Mediation Quarterly*, 14(3), 237-249. <a href="https://doi.org/10.1002/crq.3900140307">https://doi.org/10.1002/crq.3900140307</a>
- Bowen, M. (2004). Family therapy in clinical practice. Lanham, MD: Rowman & Littlefield.
- Brown, J. (1999). Bowen family systems theory and practice: Illustration and critique. *Australian and New Zealand Journal of Family Therapy*, 20(2), 94-103.

- Cannon, C., Meredith, J., Speer, S., & Mansell, W. (2019). A conversation analysis of asking about disruptions in method of levels psychotherapy. *Counselling and Psychotherapy Research*.
- Carey, T. A. (2006). *The Method of Levels: How to do psychotherapy without getting in the way.* Hayward, CA: Living Control Systems Publishing.
- Carey, T. A. (2008). Conflict, as the Achilles heel of perceptual control, offers a unifying approach to the formulation of psychological problems. *Counselling Psychology Review 23*, 5-16.
- Carey, T. A. (2016). Health is control. Annals of Behavioural Science, 2(13), 1-3.
- Carey, T. A., & Mullan, R. J. (2007). Patients taking the lead: A naturalistic investigation of a patient led approach to treatment in primary care. *Counselling Psychology Quarterly*, 20, 27-40.
- Carey, T. A., Carey, M., Mullen, R. J., Spratt, C. G., & Spratt, M. B. (2009). Assessing the statistical and personal significance of the method of levels. *Behavioural and Cognitive Psychotherapy*, *37*, 311-324.
- Carey, T. A., & Spratt, M. B. (2009). When is enough enough? Structuring the organization of treatment to maximize patient choice and control. *The Cognitive Behaviour Therapist*, 2(3), 211-226.
- Carey, T. A., Tai, S. J., & Stiles, W. B. (2013). Effective and efficient: Using patient-led appointment scheduling in routine mental health practice in remote Australia. *Professional Psychology: Research and Practice*, 44(6), 405-414.
- Carver, C. S., & Scheier, M. F. (1981). Attention and self-regulation: A control-theory approach to human behavior. New York: Springer Verlag.
- Churchman, A., Mansell, W., & Tai, S. (2019a). A school-based feasibility study of method of levels: a novel form of client-led counselling. *Pastoral Care in Education*. 1-16. <a href="https://doi.org/10.1080/02643944.2019.1642375">https://doi.org/10.1080/02643944.2019.1642375</a>
- Churchman, A., Mansell, W., Al-Nufoury, Y., & Tai, S. (2019b). A qualitative analysis of young people's experiences of receiving a novel, client-led, psychological therapy in school. *Counselling and Psychotherapy Research*, 19(4), 409-418
- Cocklin, A. A., Mansell, W., Emsley, R., McEvoy, P., Preston, C., Comiskey, J., & Tai, S. (2017). Client perceptions of helpfulness in therapy: A novel video-rating methodology for examining process variables at brief intervals during a single session. *Behavioural and Cognitive Psychotherapy*, 45(6), 647-660.
- Colapinto, J. (1982). Structural family therapy. In A. M. Horne & M. M. Olsen (Eds.), Family counseling and therapy. Itasca, IL: Peacock. <a href="https://pdfs.semanticscholar.org/467c/aa4c52a03f1b42ff9db7d6f37c4498d36b3b.pd">https://pdfs.semanticscholar.org/467c/aa4c52a03f1b42ff9db7d6f37c4498d36b3b.pd</a> f (Retrieved October 31, 2019.)
- D'Agostino, B. (2018). Militarism, machismo, and the regulation of self-image. *The Journal of Psychohistory*, 45(3), 177-191.

- Della Noce, D. J., Baruch Bush, R. A., & Folger, J. P. (2002). Clarifying the theoretical underpinnings of mediation: Implications for practice and policy. *Pepperdine Dispute Resolution Law Journal*, 3(1), 39-64. https://digitalcommons.pepperdine.edu/drlj/vol3/iss1/3
- Emery, R. E., Rowen, J., & Dinescu, D. (2014). New roles for family therapists in the courts: An overview with a focus on custody dispute resolution. *Family Process*, *53*, 500-515.
- Fisher, R., Ury W., & Patton, B. (2011.) *Getting to yes: Negotiating agreement without giving in* (3<sup>rd</sup> ed.). New York: Penguin.
- Folberg, J., Milne, A. L., & Salem, P. (2004). *Divorce and family mediation: Models, techniques, and applications*. New York: Guilford Publications.
- Garcia A. (1991). Dispute resolution without disputing: How the interactional organization of mediation hearings minimizes argument. *American Sociological Review*, 56 (6), 818-835.
- Garcia, A. (1995). The problematics of representation in community mediation hearings: Implications for mediation practice. *Journal of Sociology and Social Welfare*, 22(4), 23–46. http://search.proquest.com/docview/61417890/
- Garcia, A. C., Vise, K., & Whitaker, S. (2002). Disputing neutrality: When mediation empowerment is perceived as bias. *Conflict Resolution Quarterly*, 20(2), 205-230.
- Goodman, J. W. (2003). The pros and cons of online dispute resolution: An assessment of cyber-mediation websites. *Duke Law & Technology Review*, 2, 1-16.
- Griffiths, R., Mansell, W., Carey, T. A., Edge, D., Emsley, R., & Tai, S. (2019a). Method of Levels therapy for first-episode psychosis: The feasibility randomised controlled Next Level trial. *Journal of Clinical Psychology*. 75(10), 1756-1769. <a href="https://doi.org/10.1002/jclp.22820">https://doi.org/10.1002/jclp.22820</a>
- Griffiths, R., Mansell, W., Edge, D., Carey, T. A., & Peel, H. (2019b). "It was me answering my own questions": Experiences of method of levels therapy amongst people with first-episode psychosis. *International Journal of Mental Health Nursing*, 28, 721-734. https://doi.org/10.1111/inm.12576
- Grzegrzolka, J., McEvoy, P., & Mansell, W. (2019). Use of the Method of Levels therapy as a low-intensity intervention to work with people experiencing sleep difficulties. *Journal of Cognitive Psychotherapy*, 33(2), 140-156.
- Hendry, R. (2010). Mediation in schools: Tapping the potential. *International Journal on School Disaffection*, 7(1), 26-32.
- Herrman, M. S., Hollett, N. L., Eaker, D. G., & Gale, J. (2003). Mediator reflections on practice: Connecting select demographics and preferred orientations. *Conflict Resolution Quarterly*, 20, 403–427.
- Herrman, M. S., Hollett, N. L., & Gale, J. (2006). Mediation from beginning to end: A testable model. In M. Herrman (Ed.), *The Blackwell handbook of mediation:* Bridging theory, research, and practice (19-78). Malden, MA: Blackwell Publishing.

- Higginson, S., & Mansell, W. (2018). The development and evaluation of the Depth and Duration of Awareness Coding Scheme (D-DACS). *The Cognitive Behaviour Therapist*, 11, e16.
- Higginson, S., Mansell W., & Wood, A. M. (2011). An integrative mechanistic account of psychological distress, therapeutic change and recovery: The Perceptual Control Theory approach. *Clinical Psychology Review*, 31, 249–259
- Jenkins, H., Reid, J., Williams, C., Tai, S., & Huddy, V. (2019). Feasibility and patient experiences of Method of Levels therapy in an acute mental health inpatient setting. *Issues in Mental Health Nursing*.
- Kohn, A. (1993). *Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes.* Boston: Houghton Mifflin.
- Kovach, K. K. (2005). Mediation. In M. L. Moffitt & R. C. Bordone (Eds.), *Handbook of Dispute Resolution* (304-317). San Francisco: Jossey-Bass.
- Kressel, K., Henderson, T., Reich, W., & Cohen, C. (2012). Multidimensional analysis of conflict mediator style. *Conflict Resolution Quarterly*, 30(2), 135-171.
- Littlejohn, S., & Domenici, K. (2006). A facework frame for mediation. In M. Herrman (Ed.), *The Blackwell handbook of mediation: Bridging theory, research, and practice* (228-246). Malden, MA: Blackwell Publishing.
- Mansell, W. (in press). The interdisciplinary handbook of perceptual control theory: Living control systems IV. Elsevier Academic Press.
- Mansell, W., Carey, T. A., & Tai, S. (2012). A transdiagnostic approach to CBT using method of levels therapy: Distinctive features. Routledge.
- Mansell, W., Carey, T. A., & Tai, S. J. (2015). Classification of psychopathology and unifying theory: The ingredients of a Darwinian paradigm shift in research methodology. *Psychopathology Review 2*(1), 129-153
- Mansell, W., Zink, S., & Curtis, A. (2019). Observers fail to detect that behavior is the control of perception: A computer demonstration of unintended writing. *Journal of Experimental Psychology: General*, 148(5), e23-e29.
- Marken, R. S. (2014). Doing research on purpose: A control theory approach to experimental psychology. New View Publications.
- Marken, R. S., Mansell, W., & Khatib, Z. (2013). Motor control as the control of perception. *Perceptual and Motor Skills*, 117, 236-247.
- Mayer, B. (2000). The dynamics of conflict resolution: A practitioner's guide. San Francisco: Jossey-Bass.
- McClelland, K. (1994). Perceptual control and social power. *Sociological Perspectives* 37(4), 461-496.
- McClelland, K. (2004). Collective control of perception: Constructing order from conflict. *International Journal of Human-Computer Studies*, 60, 65-99.

- McClelland, K. (2014). Cycles of conflict: A computational modeling alternative to Collins's theory of conflict escalation. *Sociological Theory*, *32*, 100-127. <a href="https://doi.org/10.1177/0735275114536387">https://doi.org/10.1177/0735275114536387</a>
- McClelland, K. (in press). Social structure and control: Perceptual control theory and the science of sociology. In W. Mansell (Ed.), *The interdisciplinary handbook of perceptual control theory: Living control systems IV.* Elsevier Academic Press.
- McEwen, C. A. (2006). Examining mediation in context: Toward understanding variations in mediation programs. In M. Herman (Ed.), *The Blackwell handbook of mediation: Bridging theory, research, and practice* (81-98). Malden, MA: Blackwell Publishing.
- McEwen, C. A., & Maiman, R. J. (1984). Mediation in small claims court: Achieving compliance through consent. *Law & Society Review, 18,* 11-49.
- McEwen, C. A., Milburn, T. W. (1993). Explaining a paradox of mediation. *Negotiation Journal*, 9(1), 23-36.
- Menkel-Meadow, C. J. (2015). Mediation, arbitration, and alternative dispute resolution (ADR). In *International Encyclopedia of the Social & Behavioral Sciences* (2<sup>nd</sup> ed., Vol. 15). Oxford: Elsevier.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Moore, C. W. (2003). *The mediation process: Practical strategies for resolving conflict.* San Francisco: Jossey-Bass.
- Moore, R. K., & Nicolao, M. (2017). Toward a needs-based architecture for 'intelligent' communicative agents: Speaking with intention. *Frontiers in Robotics and AI*, 4, 66.
- Morris, L., McEvoy, P., Wallwork, T., Bates, R., Comiskey, J., & Mansell, W. (2018). Transdiagnostic group therapy training and implementation: The Take Control Course. Academic Press.
- Mosten, F. S., & Scully, E. P. (2015). The complete guide to mediation: How to effectively represent your clients and expand your family law practice (2<sup>nd</sup> ed.). American Bar Association.
- Plooij, F., & van de Rijt-Plooij, H. (1990). Developmental transitions as successive reorganizations of a control hierarchy. *American Behavioral Scientist*, *34*, 67-80.
- Polkinghorn, B., & McDermott, E. P. (2006). Applying the comprehensive model to workplace mediation research. In M. Herrman (Ed.), *The Blackwell handbook of mediation: Bridging theory, research, and practice* (148-174). Malden, MA: Blackwell Publishing.
- Powers, W. T. (1973). Behavior: The control of perception. Chicago, IL: Aldine.
- Powers, W. T. (1992). A bucket of beans. In *Living control systems II: Selected papers of William T. Powers* (129-144). Bloomfield, NJ: Benchmark Publications.
- Powers, W. T. (1998). *Making Sense of Behavior*. New Canaan, CT, USA: Benchmark Publications.

- Powers, W. T. (2005). *Behavior: The control of perception* (2<sup>nd</sup> ed.). New Canaan, CT: Benchmark Publications.
- Powers, W. T. (2008). *Living control systems III: The fact of control.* New Canaan, CT: Benchmark Publications.
- Powers, W. T. (2009). PCT and MOL: A brief history of Perceptual Control Theory and the Method of Levels. *The Cognitive Behaviour Therapist*, 2(3), 118-122.
- Powers, W. T. (2011). A hierarchy of control. In R. J. Robertson & W. T. Powers, (Eds.), *Introduction to modern psychology: The control-theory view* (59-82). Hayward, CA: Living Control Systems Press.
- Powers, W. T., Clark, R. K., and McFarland, R. L. (1960a). A general feedback theory of human behavior. Part I. *Perceptual and Motor Skills*, 11, 71-88.
- Powers, W. T., Clark, R. K., and McFarland, R. L. (1960b). A general feedback theory of human behavior. Part II. *Perceptual and Motor Skills*, 11, 309-323.
- Regina, W. F. (2011). Applying family systems theory to mediation: A practitioner's guide. Lanham, MD: University Press of America.
- Robertson, R. J., & Glines, L. A. (1985). The phantom plateau returns. *Perceptual and Motor Skills*, 61(1), 55-64.
- Ryland, M., & Scholte, T. (2019). Rehearing resilience (and beyond): Facilitating second-order observation of conflict in the university workplace through forum theatre. *Kybernetes*, 48(4), 740-750.
- Salem, P. (2009). The emergence of triage in family court services: The beginning of the end for mandatory mediation? *Family Court Review*, 47(3), 371–388.
- Saposnek, D. (2004). Commentary: The future of the history of family mediation research. *Conflict Resolution Quarterly*, 22(1–2), 37-53.
- Saul, J. A. (2012). The legal and cultural roots of mediation in the United States. *Opinio Juris in Comparatione*, 1 (8), 1-12.
- Singer, Linda R. (1994). *Settling disputes: Conflict resolution in business, families, and the legal system* (2<sup>nd</sup> ed.). Westview Press.
- Spangler, Brad. (2003). Problem-solving mediation. In G. Burgess & H. Burgess, *Beyond intractability*. Boulder, CO: Conflict Information Consortium, University of Colorado. <a href="https://www.beyondintractability.org/essay/problem-solving-mediation">https://www.beyondintractability.org/essay/problem-solving-mediation</a> (Retrieved April 19, 2019.)
- Taylor, M. (2019). The powers of perceptual control: An inquiry into language, culture, power, and politics. (Unpublished manuscript.)
- Ting-Toomey, S., & Kurogi, A. (1998). Facework competence in intercultural conflict: An updated face-negotiation theory. *International Journal of Intercultural Relations* 22(2), 187–225.
- Umbreit, M. S., Coates, R. B., & Vos, B. (2004). Victim-offender mediation: Three decades of practice and research. *Conflict Resolution Quarterly*, 22(1), 279-304.

- Vancouver, J. B., & Scherbaum, C. A. (2008). Do we self-regulate actions or perceptions? A test of two computational models. *Computational and Mathematical Organization Theory*, *14*(1), 1-22.
- Vancouver, J. B., Weinhardt, J. M., & Schmidt, A. M. (2010). A formal, computational theory of multiple-goal pursuit: Integrating goal-choice and goal-striving processes. *Journal of Applied Psychology*, 95(6), 985-1008.
- Walker, J., & Hayes, S. (2006). Policy, practice, and politics: Bargaining in the shadow of Whitehall. In M. Herrman (Ed.), *The Blackwell handbook of mediation: Bridging theory, research, and practice* (99-128). Malden, MA: Blackwell Publishing.
- Winslade, J. M., & Monk, G. D. (2006). Does the model overarch the narrative stream? In M. Herrman (Ed.), *The Blackwell handbook of mediation: Bridging theory, research, and practice* (217-227). Malden, MA: Blackwell Publishing.
- Winslade, J., & Monk, G. (2001). *Narrative mediation: A new approach to conflict resolution*. San Francisco: Jossey-Bass.
- Yin, H. H. (2014). Action, time and the basal ganglia. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 369(1637), 20120473.
- Young, R. (2017). A general architecture for robotics systems: A perception-based approach to artificial life. *Artificial Life*, 23(2), 236-286. <a href="https://doi.org/10.1162/ARTL">https://doi.org/10.1162/ARTL</a> a 00229

#### **AUTHOR INFORMATION:**

**Kent McClelland** is Professor of Sociology, Emeritus, at Grinnell College. For nearly thirty years his work has explored ways to apply the psychological perspectives offered by perceptual control theory to the sociological understanding of social interactions and structures. He also helped to establish the Peace and Conflict Studies Program at Grinnell College. His current projects include an innovative theory of how social structures and cultures can be understood as collective control processes. Another current project, "When control goes wrong," offers an analysis of social problems as control problems.

Address: Dr. Kent McClelland, Department of Sociology, Grinnell College, Grinnell, IA

50112, USA. Email: <a href="mailto:mcclel@grinnell.edu">mcclel@grinnell.edu</a> Website: <a href="https://www.grinnell.edu/user/mcclel">https://www.grinnell.edu/user/mcclel</a>

Warren Mansell has a background in research on cognitive behavioural therapy and processes in mental health problems. In the last ten years, he has broadened his research interest through the focus of an integrative theory – perceptual control theory (PCT) – to include neuroscience, dementia, virtual reality, human performance, and robotics. His work on Method of Levels, a psychotherapy based on PCT, has led him to study its impact in a number of contexts including counselling in schools, counter-radicalisation initiatives, and facilitating forum theatre interventions. He has a longstanding collaboration with Prof. Kent McClelland in teaching PCT in universities, and the current article is their first collaborative article. Address: Dr. Warren Mansell, Reader in Clinical Psychology, Centrum (Centre for New Treatments and Understanding in Mental Health), Division of Psychology and Mental Health, School of Health Sciences, Faculty of Biology Medicine and Health, University of Manchester, Manchester Academic Health Science Centre, 2nd Floor Zochonis Building, Brunswick Street, Manchester, M13 9PL, UK.

Email: warren.mansell@manchester.ac.uk

Website: <a href="https://www.research.manchester.ac.uk/portal/en/researchers/warren-mansell(fcc6ecc5-b061-4bb7-82f8-b0f05d2174fc).html">https://www.research.manchester.ac.uk/portal/en/researchers/warren-mansell(fcc6ecc5-b061-4bb7-82f8-b0f05d2174fc).html</a>