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UNDERSTANDING CONFLICT IN A POSTMODERN WORLD

SCOTT H. HUGHES*

I. INTRODUCTION

We have stretched the modern models of conflict resolution to their elastic limits. These models are based upon a worldview that started in the seventeenth century with the thinking of intellects such as Descartes, Leibniz, Kant, and Newton and continues to dominate Western thinking into this new century. It is a worldview that is linear, reductionist, objectivist, determinist, predictive, and rational. In the last half of the twentieth century, postmodern philosophers began to question some of these tenets. Now, visionaries in neuroscience, physics, mathematics, and cognitive and social psychology have joined with the postmodernists to challenge modernist thinking. Their work is also beginning to have an impact on thinking about conflict and conflict transformation. In this short essay, I will briefly discuss these modern precepts and then describe some of the ideas arising from the work in the fields of complex adaptive systems and the neurosciences. I will then detail a few challenges that this work presents to our thinking about conflict transformation, specifically with mediation and other assisted forms of negotiation. Finally, I will conclude with a short description of some suggested readings that allow easy access to these developing fields.

So, what is it about the predominant worldview that restricts our thinking? The luminaries of the modern scientific revolution created just that, a revolution in thinking from what had come before. Imagine living in the early 1600s and being told that a thrown ball would continue on forever, unless acted on by some other force. How would you feel if you were told that the world is round and that the earth was not at the center of the universe? What would you think if you were told that the heart is a pump, that the stomach and intestines make up a chemical processing plant, and that the nervous

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system connects the brain to the rest of the body?

To the ordinary person in the seventeenth century, these crazy ideas were blasphemous. The ordinary seventeenth-century person believed the people involved in spreading these evil thoughts should have been imprisoned. Of course, a ball will come to a stop. It does not need any other thing to act upon it. The earth is flat and resides at the center of the universe. If the world were round and rotated on its axis, we would all fly off. Finally, the body does not have any of these magical things, but is made up of the four essential humors. Health is maintained by balancing the humors through bleeding. The new ideas were impossible to believe because they were so contrary to lived experience. But within the next century, most of these ideas became the established thinking.

II. CURRENT SCIENTIFIC THOUGHT

The great thinkers of the seventeenth and eighteenth centuries made amazing progress when one considers the starting point of scientific thinking and the state of technology (or the lack thereof). These great thinkers and others like them began a process of thinking that is linear, reductionist, objectivist, determinative, predictive, and rational. This process still governs much of our thinking four centuries later. First, our reality consists of a linear understanding of things. As such, there is a direct relationship between effort expended and results obtained. Small inputs mean small outputs and big inputs mean big outputs. Relatedly, we process matters in a straightforward, item-by-item, one-after-another fashion. At least we assume that we do.

Second, in order to understand this linear world and determine the nature of things or the purposes of a system, we must reduce the thing or system to its constituent parts and examine these parts. If we cannot reach a conclusion about how things work, we examine the parts in ever-smaller detail. The truth about the whole can be determined only by an examination of its parts.

Third, based upon the mind-body dualistic philosophy of Descartes, our examination of these parts can be conducted in an objective manner. It is possible to sit apart from the thing being examined or outside of a system and to view it in an independent and impartial manner. Our mind, situated within our body, is used to examine the reality of the world around us and to pronounce the truth of what we examine. If the interpretation does not comport with reality, we have not been objective enough. The cure for this problem is to examine our thinking for biases and prejudices and eliminate them. The failure to learn the "truth" of things does not rest in the idea that truth does not exist, but in our inability to be sufficiently objective.

Fourth, our analysis of a thing or a system is meant to determine cause-

effect relationships. Each effect has a cause, and within a thing or a system, each effect should have the same cause over time. If we do x , we will always get y , or if we do a , b , and c , we will always get d . If we do x and we do not get y , the thing or system is broken. For instance, each time we get into an automobile and press on the accelerator, we apply these principles. We assume that the system (the car) is linear, determinative, and reductionist. We push the gas pedal down a bit and we get a small increase in speed. We push the pedal to the floor and we expect a rush of acceleration.

Fifth, all things are predictive. If we reduce a thing or system into ever-smaller constituent parts, and we do so in an objective manner, we should be able to arrive at a comprehensive understanding of the nature of the thing or system and, most importantly, we should then be able to predict how the thing or system will behave in the future. Thus, if we observe x , we should be able to predict that y will occur in the future. And if y does not occur, we have not reduced the thing or system to small enough parts or we have not been fully objective. If we push the accelerator down and we do not get any more speed, something is wrong with the car. We do not imagine that the laws of physics have been suspended or that our ability to predict the future is in jeopardy.

Finally, application of these principles results in a rational analysis of things or systems. Rationality, or the cool, purposeful application of pure reason, is the key to a comprehensive understanding of things or systems. In order to be rational, we must eliminate any semblance of emotion from the analysis. If we allow emotion to cloud our thinking, our analysis will not be valid, our analysis will not be robust, and our ability to predict the future and govern our conduct will be seriously compromised.

These principles form the foundation of the modern scientific method. More than that, though, they permeate our thinking in a manner that is unspoken and mostly unconscious. The application of these principles has given us a visit to the moon, computers, nanotechnology, and on a more mundane level, Velcro and Teflon, to name just a tiny fraction of the developments in the last half-century. Unfortunately, when it comes to understanding what it means to be human or, for our purposes, understanding humans in conflict, these principles constrain our thinking.

III. NEW SCIENTIFIC DEVELOPMENTS

Developments in a wide array of scientific endeavors promise to shake the very core of Western thought and provide intriguing insights for our inquiry. Work in the diverse fields listed above has created opportunities to explore and develop our understanding in two areas. First, scientists in physics, mathematics, and microbiology have developed a field labeled “complex

adaptive systems” (“CAS”), and second, scientists in the neurosciences, linguistics, and cognitive psychology have been working with the most complex of all complex adaptive systems, the human mind.

Let us start with the human mind. As Wendell Jones and I noted,¹ work by Lakoff and Johnson² provides us with three very important principles. First, the mind is essentially embodied. We cannot observe reality from an objective point of view, but only from a viewpoint lodged within a history of life experiences and the resulting values, beliefs, understandings, and expectations of how things work. It is these assumptions that shade everything we observe.

Second, thinking is overwhelmingly subconscious; the vast work of the mind is beyond immediate access. When we see a friend approaching from afar, we have no idea about how we recognized her face; it just happens. When we look about, our brain is receiving only a tiny fraction of the millions of pixels of information generated by our retina, but we do not have to perform the work of choosing the nerve impulses necessary to construct a picture in our mind. We see a seamless image in our mind and are not conscious of this process. In all things, our mind is tending to the myriad chores from moment to moment in observing its environment, monitoring its bodily state, and preparing it for action without our conscious involvement.

Third, our thinking about abstract concepts is largely metaphorical. Metaphors are not just the tools of poets and novelists, but are used by all in everyday conversation to communicate. But metaphors are more than just tools of communication; we create meaning through the use of metaphors. Metaphor is meaning, not the result of a need to convey meaning. We do not create meaning and then choose an appropriate metaphor to convey the chosen meaning; the metaphor and meaning arise simultaneously.

And, for a fourth principle, based upon the work of Antonio Damasio,³ I believe that there is no thought without emotion, no memory without emotion, and, therefore, no decision without emotion. Emotion is a necessary concomitant of decision-making. Without emotions, we are left to reason alone, which is not sufficient.

For the second area of examination, we need to move to complex adaptive systems. By their very nature, CAS are nonlinear, subjective,

1. Wendell Jones & Scott H. Hughes, *Complexity, Conflict Resolution, and How the Mind Works*, 20 CONFLICT RESOL. Q. 485, 487-88 (2003).

2. GEORGE LAKOFF & MARK JOHNSON, *PHILOSOPHY IN THE FLESH: THE EMBODIED MIND AND ITS CHALLENGE TO WESTERN THOUGHT* (1999).

3. ANTONIO R. DAMASIO, *THE FEELING OF WHAT HAPPENS: BODY AND EMOTION IN THE MAKING OF CONSCIOUSNESS* (1999).

nondeterminative, nonpredictive, and emergent. With a nonlinear system, huge inputs may mean little or no output. On the other hand, an extremely small input may mean a huge output. This idea has given rise to a principle from chaos theory known as the butterfly effect,⁴ which I have humorously renamed the butterfly sneeze theory. If a butterfly sneezes in the Himalayas, it may cause a hurricane in the Gulf of Mexico. But, being nondeterminative, the butterfly sneeze may or may not have a causal relationship with the hurricane. It may not be the x from which we get y . And, being nonpredictive, if the sneeze is the x , it is impossible to predict that we will get the hurricane y . Our understanding of CAS cannot be aided by reducing the systems to their individual parts. Examination of the piece parts will not aid us in our understanding of the whole system. This is because the system demonstrates emergent behavior, behavior that resides only in the system as a whole and not in any of the constituent pieces.

All of this is complicated by our inability to develop an objective view of things or systems. If our mind is embodied, and our thinking largely unconscious, metaphorical, and inextricably linked with our emotions, our views of things or systems are fundamentally subjective. The rational, objective thinker and actor does not exist. We are each ultimately constrained by our individual perspectives that arise from a primordial and experience-laden soup, delimited by our emotions and metaphorically framed by our lived world.

Before proceeding, let me draw a distinction between complicated systems and complex adaptive systems. A Boeing 747 is a complicated system. An ant colony is a complex adaptive system. Although it is made up of millions of parts, we can understand the Boeing 747 by reducing it to its piece parts for study. Even with the huge number of parts, each piece has no freedom of individual action. If you push the yoke forward, the Boeing must descend. Every time. The behavior of the Boeing is complicated, but it is neither complex nor adaptive. On the other hand, the ant colony as a complex adaptive system is not susceptible to reduction into its pieces in order to understand its function. With a limited set of parts, each with a degree of freedom of conduct, but with each reacting only to local stimuli, the ant colony is capable of amazingly intricate, nondeterminative, and nonpredictive behavior. The behavior of the colony cannot be found residing within any single ant. However, the ants each behave based upon a simple set of rules, and when combined with the behavior of all of the other ants, produce complex, adaptive behavior.

4. For a fuller description, see *The Butterfly Effect*, at <http://www.fortunecity.com/emachines/e11/86/beffect.html> (last visited Jan. 26, 2004).

Taken as a whole, these ideas provide a stunning challenge to the foundational principles that have guided the scientific revolution for four hundred years. The work in CAS will not replace Newtonian physics. If you accidentally drop an anvil out of a window and there is a construction worker standing below, you probably need to call your insurance carrier. We can say that with a high degree of certainty. Even so, the work in these fields will supplement our understanding about how things work. It also provides very interesting challenges for the work we do in conflict transformation.

IV. IMPACT ON CONFLICT TRANSFORMATION

Some new theories about the nature and dynamics of human systems in conflict arise from the study of complex adaptive systems. For instance, harmony and consensus impede adaptation and creativity, which arise out of a tension between continuity and uncertainty. Just as life exists in an extremely thin layer of atmosphere surrounding the globe, life exists on the borderline between chaos and order. As humans, we cannot exist where there is unmitigated randomness, nor where there is stifling sameness and predictability. Human systems do not progress where there is anarchy, nor where there is absolute dictatorship. Systems in conflict tend toward flux or solidity; they tend toward a state where each actor makes random and uncoordinated decisions or where no decisions are made, except by one person or a select few. To transform conflict, we must help human systems return to a path of tension between chaos and order, a place where both chaos and order exist simultaneously. It is on this path that emergent behavior arises.

However, our efforts to aid systems in the search for this path between order and chaos are hobbled by our own lack of objectivity and the nondeterminative and nonpredictive nature of complex adaptive systems. As much as we like to deceive ourselves, as conflict transformers we cannot achieve an objective view of the system. No one has an objective view of the system. In fact, all actors act upon local information. Further, if systems are nondeterminative and nonpredictive, how is it possible to help systems to this path between chaos and order? We cannot direct the system. We cannot say if we do x , the system will end up at y . Much like the butterfly sneeze theory, we can only disturb the system and then watch to see if and how the system reacts.

If we cannot be objective in our work and we cannot predict how systems will behave, how can we avoid the ultimate slide into uncertainty and relativism? Even though we cannot predict with absolute certainty the path of a hurricane, all hurricanes share similar characteristics. For instance, they all

rotate counterclockwise in the northern hemisphere. The idea that a small number of rules or principles exist is also true for human systems in conflict. First, emergence in human systems arises from the strength of the connections between humans and a balance of the redundancy of the relationships. Because all actors act on local information, the connections between humans must be strong and there must be redundant connections. Communication must flow in all directions and not just down. Second, for a system to adapt successfully, there must be a balance between competition and cooperation, between chaos and order.

These ideas present both opportunities and challenges for our understanding of human systems in conflict and about our ability to transform conflict. Linearity, objectivity, rationality, and the like represent the organizing principles of the model of mediation that we often teach. Even so, we know that the “art” of mediation does not follow this model and that our intuitive practice more closely mirrors the ideas of complex adaptive systems.

However, the ideas arising from these fields pose a number of questions and challenges that we must confront. For example, should we reject the idea of neutrality and impartiality and move toward a model that sees a neutral in conflict as a respectful participant? Because our minds are embodied and we (along with all others) lack an objective view of matters, neutrality and impartiality are fictions.⁵ They are not even theoretical goals to which we can all strive. They just do not exist. What then, are mediators attempting to accomplish during mediation when they think about being neutral or impartial?

Because most of our thinking is subconscious and laden with emotions, should we abandon the notion that we can achieve non-normative conflict transformation? Non-normativity exists only in a worldview that assumes both rationality and objectivity. Since neither exists, non-normative methods of conflict resolution do not exist either. Can we accept the idea that non-normative forms of mediation are merely covers for cultural hegemony by the dominant culture? We profess that our systems of mediation are non-normative, but they are not so. If we abandon the idea of non-normativeness, what model do we put in its place? If ancient and traditional forms of mediation are normative, can we adapt normative models to diverse cultures such as our own? And, if we can adapt normative models, should we? How do we?

If we create meaning and communicate about abstract ideas through the

5. See, e.g., Christopher Honeyman, *Patterns of Bias in Mediation*, 1985 J. DISP. RESOL. 141, §§ II & III (1985), available at <http://www.convenor.com/madison/patterns.htm> (last visited Jan. 26, 2004); BERNARD MAYER, BEYOND NEUTRALITY (forthcoming 2004).

use of metaphors, when we talk about “managing” conflict, which model are we invoking? Are we restricting our meaning to a mechanistic model in which systems are rational, deterministic machines in which conflict represents friction and consensus and harmony represent grease to make things work? If we are not invoking a machine model, are we creating meaning around a top-down managerial model with the mediator as supervisor and the parties as supervisees? Should we manage conflict? What happens and what is the goal when we view conflict as something to be managed? When we teach mediation, we often talk about the necessary skills as “tools.” By doing so, do we play into the machine metaphor? Do we create meaning in which conflict represents a malfunction of the machine? Further, since for every job there is a tool, do we imply that the mediator merely needs to determine the correct tool to fix the problem? This certainly cannot apply for complex adaptive human systems, which are nondeterminative, nonlinear, and nonpredictive. Finally, if conflict is everywhere and is a natural part of life, should we attempt to “resolve” it?

Should we begin with new metaphors? Instead of conflict resolution, should we refer to conflict transformation? Instead of managing conflict, would it be more productive to talk about cultivating organic change? Instead of a mediator’s toolkit, might we refer to a mediator’s palette with its myriad colors? Will using an art metaphor only create different problems? Is the mediator as artist a creator with the parties the raw materials out of which the mediator creates? We should not automatically value one metaphor over another, but should be mindful of their potential for creating new meaning within conflict.

The challenge, then, is to develop a postmodern model for conflict transformation based upon our expanding knowledge of what it means to be human. The model must incorporate the ideas developed from complex adaptive systems, the neurosciences, linguistics, cognitive psychology, and postmodern philosophy. Development of a new model presents us with both a daunting challenge and an inspiring opportunity.

V. ADDITIONAL RESOURCES

If you are interested in beginning to explore this new and expanding field, what follows are some suggested readings that I have found accessible and helpful. First, to begin your reading in linguistics and metaphor, the ground-breaking work is Lakoff and Johnson’s *Philosophy in the Flesh*.⁶ In this expansive volume, the authors provide a detailed explanation of the workings

6. LAKOFF & JOHNSON, *supra* note 2.

of metaphor. They then proceed to disassemble Western philosophy by showing its metaphorical underpinnings. For an application of this work to politics, try Lakoff's *Moral Politics*.⁷ In this work, Lakoff synthesizes seemingly disparate political philosophies based upon different metaphors for the family adopted by liberals and conservatives.⁸ For an application of the theory of metaphor, try *Where Mathematics Comes From*.⁹ In this work, Lakoff and Núñez posit the theory that mathematics is not based upon truth, because truth does not exist, but upon the metaphors chosen. This book is not for the faint of heart when it comes to math. Another very accessible work from Oxford University Press is simply entitled *Metaphor: A Practical Introduction*.¹⁰ For a view from cognitive psychology, pick up the much larger volume from Cambridge University Press *Metaphor and Thought*.¹¹

When it comes to the exciting developments in the neurosciences, I strongly recommend a trio of works by Damasio. The first work in the series, *Descartes' Error*¹² is probably the most accessible and, I believe, the most important. In it, he explains the relationship between emotions and rational decision-making.¹³ His next work, *The Feeling of What Happens*,¹⁴ extends his work into a greater understanding of human emotions and the creation of self. It contains rather lengthy explanations of his work with brain damaged patients to discover the seat of consciousness.¹⁵ In the newest work in his series, *Looking for Spinoza*,¹⁶ Damasio has rediscovered the seventeenth century philosopher and uses his work as a foundation for emotions and their role in survival. Unlike the philosophers surrounding him, Spinoza refused to separate mind and body, a central tenant to Damasio's work.

For a wonderful book that bridges from the neurosciences to complex adaptive systems, see *Liars, Lovers, and Heroes*.¹⁷ This cleverly written book

7. GEORGE LAKOFF, *MORAL POLITICS: HOW LIBERALS AND CONSERVATIVES THINK* (2d ed. 2002).

8. *Id.*

9. GEORGE LAKOFF & RAFAEL E. NÚÑEZ, *WHERE MATHEMATICS COMES FROM: HOW THE EMBODIED MIND BRINGS MATHEMATICS INTO BEING* (2000).

10. ZOLTÁN KÖVECSES, *METAPHOR: A PRACTICAL INTRODUCTION* (2002).

11. *METAPHOR AND THOUGHT* (Andrew Ortony ed., 2d ed. 1993).

12. ANTONIO R. DAMASIO, *DESCARTES' ERROR: EMOTION, REASON, AND THE HUMAN BRAIN* (1994); see also RICHARD RESTAK, *THE SECRET LIFE OF THE BRAIN 145-50* (2001) (containing a brief description of Damasio's work from the PBS series of the same name).

13. DAMASIO, *supra* note 12.

14. DAMASIO, *supra*, note 3.

15. *Id.*

16. ANTONIO R. DAMASIO, *LOOKING FOR SPINOZA: JOY, SORROW, AND THE FEELING BRAIN* (2003).

17. STEVEN R. QUARTZ & TERRENCE J. SEJNOWSKI, *LIARS, LOVERS, AND HEROES: WHAT THE NEW BRAIN SCIENCE REVEALS ABOUT HOW WE BECOME WHO WE ARE* (2002).

reads like a novel, while still containing an incredible scope of ideas. For a quick introduction to the field of CAS, I recommend *Complexity: The Emerging Science at the Edge of Order and Chaos*¹⁸ and *Complexity and Postmodernism*.¹⁹ Both are very readable and provide a great foundation for further thinking in this field. The former is a bit older (1992), but still gives the reader a lot to chew on. As you may be able to tell from its title, the latter approaches the field with a philosophical point of view. That point of view, and some math, complicates the book a bit for those not so inclined. Even with this, though, I found the book very informative. The work in these fields tends to confirm much of what postmodern philosophers were thinking several decades before.

For the work in complex adaptive systems that comes the closest to conflict transformation, I strongly recommend a series of books in which Ralph Stacey plays an important role. He has been applying the ideas in CAS to organizational development and management. He is currently a co-editor of a series entitled, "Complexity and Emergence in Organizations" by Routledge and a co-author of some of these books. Specifically, I direct your attention to *Complexity and Management*,²⁰ *Complex Responsive Processes in Organizations*,²¹ and *The Paradox of Control in Organizations*.²² Stacey's most recent effort, *Complexity and Group Processes*,²³ provides an intriguing look at therapeutic group processes through the lens of CAS. He analyzes the psychoanalytic theories of Freud, and the later relational and intersubjective theories, and finds them related to the early philosophy of Kant, and limited by the metaphors that support these theories.²⁴ Even for those who are not intrigued by this philosophical inquiry, the early chapters (1–8) provide a stunning application of CAS to interpersonal and group dynamics.

18. M. MITCHELL WALDROP, *COMPLEXITY: THE EMERGING SCIENCE AT THE EDGE OF ORDER AND CHAOS* (1992).

19. PAUL CILLIERS, *COMPLEXITY AND POSTMODERNISM: UNDERSTANDING COMPLEX SYSTEMS* (1998).

20. RALPH D. STACEY ET AL., *COMPLEXITY AND MANAGEMENT: FAD OR RADICAL CHALLENGE TO SYSTEMS THINKING?* (2000).

21. RALPH D. STACEY, *COMPLEX RESPONSIVE PROCESSES IN ORGANIZATIONS: LEARNING AND KNOWLEDGE CREATION* (2001).

22. PHILIP J. STREATFIELD, *THE PARADOX OF CONTROL IN ORGANIZATIONS* (2001).

23. RALPH D. STACEY, *COMPLEXITY AND GROUP PROCESSES: A RADICALLY SOCIAL UNDERSTANDING OF INDIVIDUALS* (2003).

24. *Id.*