Addressing Protracted Ethnopolitical Conflicts: Moving Beyond Description to Basic Dynamics

The International Center for Cooperation and Conflict Resolution (ICCCR)
Teachers College, Columbia University

Florida Atlantic University

The Institute for Conflict Analysis and Resolution (ICAR)
George Mason University

Authors:
Dr. Peter T. Coleman, ICCCR, Teachers College, Columbia University
Dr. Robin Vallacher, Florida Atlantic University
Dr. Andrzej Nowak, Florida Atlantic University
Dr Andrea Bartoli, George Mason University
Dr. Larry Liebovitch, Florida Atlantic University
Abstract
Protracted ethnopolitical conflicts continue to undermine the security, stability and well being of societies worldwide. Today, there are over 30 wars and armed conflicts being waged around the globe, with approximately 40% of intra-state armed conflicts lasting for 10 years or more and 25% of wars lasting for more than 25 years. In these settings, generations of youth are socialized into conflict, a condition we know to perpetuate violence in many forms. In fact, scholars have linked the attacks of September 11th to the socio-political conditions that were festering in hot zones of protracted conflict.

A defining feature of protracted conflicts is that they display remarkable resistance to intervention even in the face of rational considerations that would seemingly defuse the animosities at work. This suggests that the problem of intractability says more about psychology than it does about objective reality. Numerous psychological, social, and political mechanisms relevant to conflict intractability have been identified. Indeed, the challenge of achieving clarity on this problem does not reflect a lack of identifiable factors, but rather an over-abundance. The task before us is to integrate these diverse factors into an account that provides a coherent perspective, yet allows for prediction and a basis for conflict resolution in specific settings.

Dynamical-systems Research on Intractable Conflicts.
In 2006, our international team of scholar-practitioners was funded by the James S. McDonnell Foundation to develop a theory of enduring conflicts from the perspective of complex systems. The project applies the principles and methods of dynamical systems theory to what is arguably the most complex and dynamic of all social phenomena: protracted social conflict. The project is being conducted by a multidisciplinary research team consisting of 1) a specialist in the study of intractable conflict (Peter T. Coleman); 2) two social psychologists with expertise in the application of dynamical systems to cognitive, interpersonal, group, and societal phenomena (Andrzej Nowak and Robin Vallacher); 3) a physicist with expertise in formal descriptions and the modeling of system dynamics (Larry Liebovitch); and 4) a social anthropologist (and practitioner) who specializes in international conflict and genocide prevention (Andrea Bartoli).

Our approach to understanding and addressing protracted ethnopolitical conflict is informed by our research on dynamical-systems theory and conflict. This research has found that qualitative differences in the dominant patterns of social behavior (such as those found in peaceful societies versus hostile or warring societies) can be accounted for by a few basic factors. Accordingly, our research attempts to identify, from scholarship and practice, the fundamental factors which determine and sustain destructive or violent conflict.

Our basic model centers on the concept of attractor. In a dynamical system composed of many parts or “elements,” an attractor is a relatively stable state or pattern of behavior that coordinates or integrates the elements. In a mental system, an attitude or a belief functions as an attractor if it integrates and provides common meaning for different events, memories, and pieces of information, even if these mental “elements” by themselves might be interpreted in very different ways. In a social system (e.g., a group or society), an ideology functions as an attractor if it provides a shared reality and frame of reference for collective action, even if the members of the group or society each have divergent needs and interests. Metaphorically, an attractor “attracts” the system’s elements to a common state or pattern,
providing coherence and stability in the face of new and confusing experiences (e.g., ambiguous information, unexpected events). Once a system is governed by an attractor, it actively resists threats that would change the way the elements (e.g., thoughts, individuals) are organized. From a dynamical perspective, then, attempts to challenge a person’s firmly held attitude or a group’s ideology are likely to backfire, strengthening rather than weakening the attractor, and thus may intensify rather than reduce antagonism and violence in a situation characterized by conflict.

We have found that groups (e.g., communities, gangs, societies) typically have more than one attractor governing the way they think about and behave toward other groups (see Figure 1). This means that hostile and destructive interaction patterns between groups may co-exist with the potential for peaceful interactions between such groups. At any one time, however, only one attractor (e.g., negative) is likely to be manifest, with the other attractors (e.g., positive) virtually invisible to observers, or even to the participants themselves. The existence of latent attractors suggests that under the right conditions, the groups may demonstrate a sudden and dramatic change in their thoughts, feelings, and actions vis a vis one another. Thus, the interactions within a community can move from one manifest attractor (such as peace) to another previously latent attractor (such as war), sometimes even in response to a rather minor incident that triggers the latent pattern of thought, feeling, and action. This scenario of nonlinear change is evident both in sudden outbreaks of group violence in situations of relative peace (such as occurring in Northern Ireland at the time of this writing) as well as in sudden outbreaks of peace in situations of protracted conflict (such as occurred in the 1990s in Mozambique after 16 years of civil war).
Recognition that the current state of communal life can co-exist with other potential but latent patterns of interaction (each with differing degrees of “attracting” power) underlies our research agenda and provides the foundation for the following set of recommendations for promoting sustainable peace.

**Recommendations**

The following recommendations have been generated by our multidisciplinary team of scientists (psychologists, anthropologists, complexity scientists, and physicists) and derive from years of scholarship, practical experience, theory development, and empirical testing, including case-based and laboratory research. This research, funded by the James S. McDonnell Foundation, aims to apply new insights from complexity science to working constructively with conflicts that endure and that resist more standard approaches to resolution.

1. **Understand that peace and conflict are not opposites.** Most of us operate under the basic assumption that a thorough understanding of a conflict and its sources will lead us logically to a strategy for addressing it and bringing about peace. However, research on attitudes and emotions has taught us that positive and negative feelings, attitudes, and behaviors are not merely the opposite of each other, but rather are *independent dimensions*. This means that understanding the key conditions and variables that led a conflict to escalation and stalemate does not necessarily tell us much about what is required for peace. Certainly, a thorough understanding of the problem is required if we hope to contain or reduce the potential for destructive acts in a system. However, this is a necessary but insufficient condition for peace. We also must realize that destructive dynamics have a very different impact on systems than do constructive dynamics;
they have different degrees of stability, varied temporal rates of diffusion, and are associated with a distinct set of pre-existing conditions.

2. **Take time seriously.** The recognition that conflict and peace arise and develop within complex, non-linear systems suggests that we learn to attend to temporal patterns and trends, not specific outcomes. This has two major implications for conflict transformation and peacebuilding. First, it is important to recognize that a system’s state (the current situation) and its attractors (potential stable patterns in a system) change on different time scales. Manifest conflicts can evidence dramatic changes in their states – from relatively peaceful states to violent ones, or from intensely destructive states to peaceful. However, such changes in the current state of the conflict should not be confused with changes in the underlying attractor landscape. Attractors tend to develop slowly, incrementally over time as a result of a host of relevant activities. It is critical that we appreciate and take into account these time-scale differences. Second, the effects of different interventions are likely to have different temporal patterns. For example, Table 1 provides an overview of different initiatives for mobilizing constructive change in situations of protracted conflict, organized around two dimensions: type of change initiated and level of intervention. Each initiative is associated with a distinct temporal pattern. We need to be cognizant of this when designing and implementing such initiatives.

![Systemic Change Initiatives Table](image)

3. **Employ feedback loop analysis to identify energy flow in a dynamical-system of conflict.** It can be useful to represent the dynamics of a conflict – in the form of a dynamical network – through feedback loop analysis. Loop analysis is useful for mapping how different events or elements of a conflict relate to one another in terms of the positive and negative feedback loops that can escalate, de-escalate, and stabilize destructive conflicts (See Figure 2 for a depiction of the Mozambique civil war and peace process). Positive feedback occurs when one element (such as a hostile act) stimulates another element (a retaliatory act) along its current trajectory (fueling an escalatory spiral and resulting in a strong attractor for destructive conflict).
Negative feedback occurs when an element inhibits or reverses the direction of another element (such as when the presence of peacekeeping troops decreases hostilities). This method of conflict analysis not only captures the multiple sources, consequences, and temporal dynamics of such systems, but it can also help identify central nodes and patterns in the conflict that are unrecognizable by other means. This method works best when mapping more structured elements of communities (such as relational networks or information flow) but can also work well as a collaborative process involving various stakeholder groups negotiating their respective subjective views of the conflict. Once the system is mapped, you can employ basic measures of network analysis and centrality to locate hubs, energy centers, gateways and leverage points. This can help to both contextualize conflicts, and provide specific insights for intervention.

**Figure 2: Feedback Loop Analysis of Mozambique Conflict and Peace**

4. **Create conditions for positive latent attractors to emerge and be sustained internally.** Finding and implementing a solution to a protracted conflict is tantamount to changing the system’s *attractor landscape*. The idea of *latent attractors* provides an important new perspective on conflict intervention. In this view, the malignant thoughts, feelings, and actions characterizing a group’s dynamics may represent only the most salient and visible attractor for the group. Particularly if there is a long history of interaction with the out-group, there may be other potential patterns of mental, affective, and behavioral engagement *vis a vis* members of the out-group, including those that foster positive inter-group relations. With this in mind, identifying and reinforcing latent (positive) attractors, not simply disassembling the manifest (negative)
Support existing networks of effective action: Virtually every conflict system, even the most dire, will contain people and groups who, despite the dangers, may be able to reach out across the divides and work to foster dialogue and peace but are constrained by the dynamics of the conflict. During times of intense escalation, these people and groups may become temporarily inactive - even going underground - but are often willing to re-emerge when conditions allow, becoming fundamental players in the transformation of the system.

Consider employing weak power tactics to avoid strong resistance: Strong enmity systems, which evidence strong attractors for destructiveness and weak attractors for peace, will often reject out-of-hand most strong-arm attempts to force peace. History has provided countless examples of the failure of strong outside parties to forge a peace in such systems. Nevertheless, sometimes, peace does emerge. Weak power third parties may be able to carefully introduce a sense of doubt or dissonance in an otherwise coherent “us versus them” meaning system. For example, the events involving the NGO The Community of St. Agidio in Mozambique in the 1990s provide us with an excellent example of the utility of “weak power” in creating a sense of possibility for peace in a strong enmity system.

Employ discreet negotiation chains: An increasingly popular tactic employed to initiate peace talks in protracted conflicts is the use of negotiation chains. This is the practice of involving a sequence of actors in the exploration of more formal talks, by allowing each actor to speak directly with another actor with whom they are not constrained politically against speaking, but who has contacts further down the chain with the other side. Thus, talks transpire through a series of encounters, which allow for communications between parties who 1) need to be able to maintain deniability in the talks, and 2) who would otherwise not be able to communicate.

Work on increasing positivity away from the pull of conflict attractors: Recognizing that systems with strong, negative conflict attractors often construct peace-makers as part of the conflict system and position them in one camp or another, some interveners attempt to work constructively by circumventing the conflict. This is an approach employed in some of the work by Ashoka Fellows working in conflict zones, who are typically local people working in innovative ways to help build social capital and provide a sense of efficacy by addressing basic needs in their communities (such as building community latrines in slums, organizing dances for idol youth, etc.).

Acknowledge or establish superordinate identities and goals: This is a classic approach to intergroup conflict that involves the identification or development of joint goals and identities in an attempt to establish a foundation of cooperation and eventually trust between parties (Sherif, et. al, 1961; Deutsch, 1973; Worschel, 1987). Even if peacekeeping missions, reconciliation processes, trust-building activities, and cooperative conflict resolution initiatives appear to be largely ineffective in situations locked in an ongoing protracted struggle, they may very well be acting indirectly to establish a sufficiently wide and deep attractor basin for moral, humane forms of intergroup interactions that provide the foundation for a stable, peaceful future.

5. “Reverse engineer” negative, destructive attractors. Of course, establishing latent attractors for peaceful relations is only part of the story. The most obvious need in protracted conflict is to quell the current state of
violence and contain actively destructive processes. This is often done by introducing peacekeeping troops or other forms of regional or international military or police support. However, even when systems de-escalate and appear to move into a state of peace, it is critical that we recognize that the potential for destructive interactions (destructive conflict attractors) still exists. It is important, then, that we work actively to deconstruct and dismantle the negative attractors. This can be done through a variety of initiatives, including:

- decoupling positive feedback loops that feed destructive conflicts;
- introducing negative feedback loops (early-warning systems, cross-cutting structures, international monitoring, etc.) that interrupt escalatory spirals;
- institutionalizing more nuanced, alternative conflict narratives (through media, textbooks, official accounts, etc.); and
- limiting the pervasive spread of conflict by allowing movement of the parties (hostilities are more likely to fester when groups are constrained in one location).

Discussion of the Problem
A study of international conflicts between 1945 and 1995 identified 18 cases of intractable interstate relationships that produced 75 militarized and violent conflicts which resisted hundreds of attempts at resolution and posed serious threats to regional or international security (Bercovitch, 2005). Indeed, enduring conflicts have been linked to one half of the interstate wars since 1816, with 10 out of 12 of the most severe international wars emerging from protracted destructive relations (Bennett, 1996). The seeming immunity to resolution has led many scholars to label such conflicts intractable (cf. Coleman, 2003).

Several lines of research are devoted to conflict intractability. Such labels as deeply-rooted conflict (Burton, 1987), protracted social conflict (Azar, 1986, 1990), moral conflict (Pearce & Littlejohn, 1997), and enduring rivalries (Goertz & Diehl, 1993) have been used to depict conflicts of this nature. Kriesberg (2005) stresses three dimensions that distinguish intractable from tractable conflicts: their persistence, destructiveness, and resistance to resolution. Most conflicts don’t begin as intractable, but become so as escalation, negative sentiment, and hostile cognitions and interactions change the quality of the conflict. They can be triggered by a wide variety of factors and events, but often involve such issues as moral and identity differences, high-stakes resources, and/or struggles for power and self-determination (Kriesberg, 2005; Coleman, 2003, 2006). Not surprisingly, these circumstances often lead to incalculable human suffering, including destruction of vital infrastructure, division of families and communities, extreme violence, dislocation, and trauma (see Cairns & Darby, 1998; Coleman, 2000).

Call to Action and Conclusion
The problems associated with protracted ethnopolitical conflicts are currently salient as special representatives, diplomats, the US Military, the C.I.A. and policy makers work to address the volatile situations in Afghanistan, Iraq, Iran, Israel-Palestine, Sri Lanka, Cyprus, the Republic of Congo, and other states and regions struggling with ongoing violence and instability. This work is complex, dangerous, daunting and critically important, and should benefit from any available models or tools at their disposal. The research findings from our labs, and
from those of others working in complexity science, are beginning to offer promising insights and tools for constructive approaches to these intractable problems. This work holds great potential, but must go further.

What is required at this stage is an investment in a concerted effort to bring together scholars, practitioners, and policy-makers from a variety of disciplines to work to understand such conflicts beyond the level of case-based descriptions, to get at the essence of their underlying dynamics. This level of understanding is critical for bringing about fundamental change in such “frozen” systems of conflict. Collaborative, multidisciplinary work of this nature requires a common language or integrative platform to facilitate communication and coordination across the legendary disciplinary and theory-practice divides. Dynamical-systems theory, a scientific paradigm employed from cellular research to astrophysics, provides such a platform.

About the Authors

This paper was written by Dr. Peter T. Coleman, PhD, Director of the International Center for Cooperation and Conflict Resolution and Associate Professor of Psychology and Education at Teachers College, Columbia University. Dr. Coleman was the first recipient of the Early Career Award from the American Psychological Association, Division 48: Society for the Study of Peace, Conflict, and Violence, co-edits The Handbook of Conflict Resolution: Theory and Practice (2000; 2006), and has authored over fifty journal articles and chapters. Dr. Robin R. Vallacher, PhD, Professor of Psychology, Florida Atlantic University and Research Affiliate at the Center for Complex Systems, Warsaw University. Dr. Vallacher has published 5 books and uses experimentation and computer simulations (cellular automata, attractor neural networks, coupled dynamical systems) to investigate the dynamism and complexity associated with such phenomena as self-regulation, social judgment, close relations, inter-group conflict, and the emergence of personality from social interaction. Dr. Andrzej Nowak, PhD is Professor of Psychology at the Warsaw School for Social Psychology, where he is Director of the Institute of Social Psychology of Informatics and Communications. He is also Professor of Psychology at University of Warsaw, where he directs the Center for Complex Systems at Institute for Social Studies, and Associate Professor of Psychology, Florida Atlantic University. Dr. Nowak has published five books, and his primary focus is on the dynamical approach to social psychology. Dr. Andrea Bartoli, PhD is currently Director of the Institute for Conflict Analysis and Resolution at George Mason and was the founding director of the Center for International Conflict Resolution at Columbia University. He is the coeditor of Somalia, Rawanda, and Beyond: The Role of International Media in Wars and International Crisis (Italian Academy for Advanced Studies 1995). Dr. Larry Liebovitch, PhD is a Professor at Florida Atlantic University in the Center for Complex Systems and Brain Sciences, the Center for Molecular Biology and Biotechnology and the Departments of Psychology and Biomedical Science. Over the last 25 years he has used complex systems, including fractals, chaos, neural networks, and other nonlinear methods to study molecular, cellular, physiological and psychological systems which have provided insights into the structure and motion of ion channel proteins in the cell membrane, the timing of heart attacks, the spread of electronic and biological infections, the spatial pattern of artifacts found in archeological sites, the network of gene regulation mediated by protein transcription factors, and mathematical models of the conflict between people.
About the ICCCR

The International Center for Cooperation and Conflict Resolution (ICCCR) at Teachers College, Columbia University is an innovative center committed to developing knowledge and practice to promote constructive conflict resolution, effective cooperation, and social justice. We partner with individuals, groups, organizations, and communities to learn to resolve conflicts constructively so they may develop just and peaceful relationships. We work with sensitivity to cultural differences and emphasize the links between theory, research, and practice. More information at:

International Center for Cooperation and Conflict Resolution
Teachers College, Columbia University
Box 53, 525 W 120th Street
New York, New York 10027-6696
Location: I.C.C.C.R., Box 53,
Teachers College, Columbia University,
New York, NY 10027
Phone: (212) 678-3402
Email: ICCCRDB@tc.edu

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