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Perspective

Conservation's blind spot: The case for conflict transformation in wildlife conservation

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ABSTRACT

Unaddressed or poorly addressed conflicts present increasingly difficult obstacles to effective conservation and management of many wildlife species around the world. The material, visible manifestations of such conflicts are often rooted in less visible, more complex social conflicts between people and groups. Current efforts to incorporate stakeholder engagement typically do not fully acknowledge or address the social conflicts that lie beneath the surface of conservation issues, nor do they consistently create the necessary conditions for productive transformation of the root causes of conflict. Yet, the ultimate level of social carrying capacity for many species will depend on the extent to which conservation can reconcile these social conflicts, thereby increasing social receptivity to conservation goals. To this end, conservation conflict transformation (CCT) offers a new perspective on, and approach to, how conservationists identify, understand, prevent, and reconcile conflict. Principles and processes from the peacebuilding field inform CCT and offer useful guidance for revealing and addressing social conflicts to improve the effectiveness of conservation efforts. The Human-Wildlife Conflict Collaboration (HWCC) has adapted and demonstrated these principles for application in conservation through capacity building and conflict interventions, transforming how many practitioners in the conservation field address conflict. In this article, we discuss current limitations of practice when addressing conflict in conservation, define conflict transformation, illustrate two analytical models to orient the reader to the benefits of CCT, and present two case studies where CCT was applied usefully to a conservation-related conflict.

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1. Introduction

Conflict "is a difference within a person or between two or more people [or between groups of people] that touches them in a significant way" (LeBaron and Pillay, 2006: 12). Conflict often manifests itself in "expressed disagreements among people who see incompatible goals and potential interference in achieving these goals" (Peterson et al., 2013: 94). Yet, the expressed disagreements and perceived incompatibility may be become more entrenched due to a deeper-rooted social conflict that may have little to do with the expressed disagreement (Coleman, 2011; Jeong, 2008). When such conflict is present, the dialogue and decision-making processes need to account for it if the parties are to develop mutually supported solutions that can be sustained (Lederach, 2003). If not, any solution will be temporary, at best (Rothman, 1997).

Yet, even as the conservation field moves toward more collaborative governance models of engagement (Ansell and Gash, 2008; Leong et al., 2011; Reid et al., 2009), too often the processes used (or the individuals or organizations driving the process) fail to recognize or reconcile the deep-rooted conflict among stakeholders, and as a result, conservation goals are hindered (Balint et al., 2011; Clark and Slocombe, 2011; Dickman, 2010; Doucey, 2011; Peterson et al., 2013). This happens for two reasons: first, analysis is limited to the presenting disputes (and potentially common interests), and takes incomplete account of the deeper social conflicts often entangled in these disputes (Coleman, 2011; Deutsch and Coleman, 2012; Dickman, 2010; Jeong, 2008; Peterson et al., 2013). Without thorough analysis of these deeper social conflicts, stakeholder engagement processes often overlook (or exacerbate) this hidden dimension of conflict that, if accounted for, would help create the conditions for more sustainable long-term agreements (Jeong, 2008; Lederach, 1998; Levinger, 2013; Rothman, 1997). Second, there is a tendency to negotiate short-term, superficial solutions to these complex conflicts (Balint et al., 2011; Coleman, 2011; Dickman, 2010; Doucey, 2011; Fisher et al., 1991; Leong et al., 2009). In many cases, this tendency is due to a lack of capacity for employing more comprehensive approaches, a lack of mandate or willingness to change existing methods, or a desire to avoid the messy complexity of conflict that, on the surface, may seem tangential or irrelevant to the conservation mandate (Ansell and Gash, 2008; Coleman, 2011; DeCaro and Stokes, 2008; Leong et al., 2011; Manolis et al., 2009; Messmer, 2009).

Indeed, unmanaged or poorly managed conflict, including so-called human-wildlife conflict, represents an increasingly difficult obstacle to the effective management and conservation of many species of wildlife around the world (Madden, 2004; Michalski et al., 2006; Peterson et al., 2013; Redpath et al., 2013). In most cases, such conflicts stem from (or are exacerbated by) a deeper conflict between people and groups, not solely a conflict between people and wildlife—or even a conflict between people about wildlife. Yet, in many cases, the conflict with wildlife has become a symbolic manifestation of this deeper social conflict (Dickman, 2010). Conversely, despite the inherent complexity and depth of conflicts in most wildlife conservation and management contexts, they are often approached as transactional disputes that can be negotiated or resolved once common interests are established. Such limited approaches fail to acknowledge, engage, and respond to the deeper social and psychological dynamics between individuals and groups (hereinafter referred to as "social conflict") of which the immediate wildlife-related dispute represents only a surface manifestation (Burton, 1990; Dickman, 2010; Lederach, 2003; Rothman, 1997).

We argue that long-term conservation success requires deepening conservationists' capacity and strategies to include responses that seek to understand and address these more elusive social conflicts (Deutsch et al., 2006; Dickman, 2010; Peterson et al., 2013; Madden, 2004; Manolis et al., 2009). To do so, we propose a re-orientation of conservation's understanding of and approaches for addressing conflict through conservation conflict transformation (CCT). CCT principles and processes are adapted from the field of peacebuilding to the needs of conservation. CCT strives to positively transform often unseen and destructive social conflicts that underlie many conservation efforts but have, heretofore, largely remained blind spots undermining long-term conservation progress (HWCC, 2008).

This article begins by outlining the limitations of current conservation approaches and then highlights how CCT provides a more comprehensive means to analyze and address conflict. At its core, CCT is not just an approach and set of techniques, but a way of thinking about, understanding, and relating to conflict. This article provides an introduction to this alternate approach, including discussion of two models for analyzing conflict and framing interventions, and case studies that illustrate the impact of CCT in conservation initiatives.

2. Limitations of current conservation approaches

The field of conservation is rooted in biology. Conservation professionals typically enter the field because of an interest in understanding, protecting, or managing the needs of wildlife and wild nature—not humans. And, while the field is evolving, conservation efforts still tend to be focused on physical and spatial measures (e.g. use of fences or bee hives), economic fixes (e.g. incentives or payment of compensation for losses due to wildlife depredation or alternative livelihoods), technical solutions (e.g. changes in livestock husbandry or farming practices), legal actions (e.g. more stringent punishment and other stricter enforcement measures for laws prohibiting harm to wildlife), and biological methods (e.g. impacts on wildlife populations of lethal control) (Breck, 2004; Breitenmoser et al., 2005; King et al., 2011; Nyhus et al., 2005; Packer et al., 2013; Woodroffe et al., 2005). While these considerations are necessary for the success of conservation, we suggest they are insufficient when taken alone without addressing the psychological values and needs that drive social conflict (Balint et al., 2011, 2007; Dukes, 1999; Lederach, 2003; Leong et al., 2011, 2009; Peterson et al., 2013; Reed, 2008).

Conservation conflicts often serve as proxies for conflicts over more fundamental, non-material social and psychological unmet needs—including status and recognition, dignity and respect, empowerment, freedom, voice and control, meaning and personal fulfillment, identity (one's sense of self in relation to the outside world), belonging and connectedness, social, emotional, cultural, and spiritual security (Burton, 1990; Marker, 2003; Satterfield, 2002)—which are not addressed by the technical fixes or approaches described above. Indeed, conservation efforts often falter because they fail to fully account for the history, diversity and multiple levels of social conflict influencing conservation actions (Burton, 1990; Lederach, 2003; Madden, 2004; Marker, 2003).

Even when more effective stakeholder engagement is suggested or conducted, as in Barlow et al., 2010; Redpath et al., 2013; Treves et al., 2009, conservation practitioners may not have the skills or capacity to design and lead effective processes that transform destructive conflict into productive conflict (Leong et al., 2011, 2009; Manolis et al., 2009). Well-intentioned but poorly designed efforts may only address superficial aspects of the conflict and thus limit stakeholder receptivity to change and commitment to conservation goals (Leong et al., 2009; Reed, 2008). Without attention to the history of how previous decisions were made and implemented and the influence of deeper-rooted social and psychological factors in the conflict, the overall conflict may move further toward intractability, despite interventions that address the immediate or

material issues at hand (Coleman, 2011; Deutsch and Coleman, 2012; Lederach, 2003, 1997; Naughton-Treves et al., 2003). The following case studies examining the conflicts with gray wolves in the United States (U.S.) and elephants in southern Africa illustrate how conventional conservation solutions fail to address the drivers of conflict and may result in the continuation and escalation of conflict (DeCaro and Stokes, 2008; Nie, 2004).

Eliminated from Montana, Idaho, and Wyoming by the 1930s, gray wolves began recovering in the 1980s (Bangs et al., 1998). Despite efforts to address livestock depredation by wolves through compensation programs, innovations in depredation deterrents, and many other conservation efforts, antagonism between pro-wolf and anti-wolf constituencies remained intense (Bangs et al., 2005; Chadwick, 2010; Nie, 2004, 2002).

Naughton-Treves et al. (2003: 1500) assessed the factors that influence tolerance of wolves and found that 'deep-rooted social identity' was among the most powerful predictors, while compensation for livestock losses had no influence on tolerance levels. Nevertheless, conservation and management have continued to focus on compensating losses, educating livestock owners in preventive measures, providing technical support to implement such measures, and using lethal control (Bangs et al., 2005; Breck, 2004; Musiani et al., 2004). If the physical threat to and economic value of the livestock were the only concerns, affected livestock ranchers' concerns would be sufficiently addressed by these material and economic solutions. Unfortunately, technical assistance and compensation have remained ineffective (Naughton-Treves et al., 2003; Nyhus et al., 2005); as one Idaho rancher commented, "compensation does not equal reconciliation" (Ellis et al., 2005). This rancher's comment hints at the social, psychological, cultural, political, and legal history and sentiment shaping his attitudes and understanding of the conflict (Nie, 2003). Ed Bangs, the wildlife biologist who led the U.S. federal government's northern Rockies wolf recovery effort from 1988 until 2011, stated that wolf management is "all about humans and their values, and how we use symbols to discuss our values with other people" (Ring, 2011: 2). Bangs further asserted: "We've done way too much wolf-handling and radio-collaring. In [addressing the conflict], there's a predictable pattern people go through: They become distracted from real issues and problems... and the use of technology is seen as the fix for everything" (Ring, 2011: 2).

Another set of examples illustrate how conservation outcomes can depend on whether or not the social-psychological needs and conflicts of a community are addressed as part of the development and implementation of conservation solutions. In successful efforts to secure community commitment to implement and maintain various fencing solutions to prevent human-elephant conflict, conservationists report spending more time asking questions of and listening to the community members, building trusting relationships, supporting creative and positive identity-building events within the community, and not only regularly engaging with communities, but empowering them in a leadership role during the decision-making and implementation process (Osborn and Parker, 2003; Zimmermann et al., 2009). Thus, before a solution was arrived at, it is likely that enough of the social-psychological drivers of conflict were understood and addressed, so that when solutions were decided upon, there was greater motivation and commitment by the community to maintain these solutions (DeCaro and Stokes, 2008; Engelberg and Kirby, 2001). Not surprisingly, as these 'ready-made' technical solutions were rapidly deployed to other communities experiencing human-elephant conflict (often with short funding cycles pushing for early implementation and testing of tactical solutions), there was less time and attention given to the relationship and process components that would help transform the social conflict. As a result, in many cases, because the communities' social-psychological needs were ignored, these communities resented the imposed solution, and failed to implement or maintain the chili peppers or tore down wire from fences to use for other purposes, including illegal snaring (Bird, pers. comm., 2013; Sitati and Walpole, 2006; Songhurst, 2010).

In such cases, we argue, conservation setbacks often stem from a lack of consideration of the full spectrum of the conflict and an over-emphasis on the immediate material and economic factors impacting conservation. This emphasis relies, implicitly, on Abraham Maslow's "hierarchy of needs" (Maslow, 1954). Maslow's theory posits that until one's basic physiological (food, water, shelter, sleep) and security (physical, employment, health, property) needs are met, humans are less concerned with or do not seek out the 'higher level' social and psychological needs. However, despite its popularity, Maslow's framework has been repeatedly refuted by scholars from a variety of disciplines and fields, including sociology, psychology, peacebuilding, and economics (Burton, 1990; Clark, 1990; Coate and Rosati, 1988; Galtung, 1990; Max-Neef et al., 1989).

Beyond the narrow focus on addressing the material losses, analyzing the conflict dynamics and developing appropriate decision-making processes that address these deeper drivers of conflict would build genuine community receptivity to, commitment in, and ownership of the solutions (Frahm and Brown, 2007; Lachapelle, 2008; Senge, 1997). Better understanding and accounting for the social conflicts as part of conservation efforts would likely prevent or overcome obstacles and help create conditions for greater receptivity and ownership by the very group who must be responsible for maintaining solutions (Jackson et al., 2001; Smith and Torppa, 2010). From a conservationist's point of view, the seemingly self-destructive behavior of communities that do not take action to help themselves alleviate wildlife damage to their property is frustrating and disheartening. Yet, a closer examination of the social conflicts underpinning conservation offers explanations for seemingly enigmatic behavior, providing the practitioner with a starting point to either prevent such incidents, or if they have already occurred, to use them as opportunities to intervene more effectively in the future (Lachapelle, 2008; Lederach et al., 2007; Lederach, 2003).

3. Conservation conflict transformation

3.1. What is conflict transformation?

Conflict transformation (CT) is

> "a capacity to envision ...[and] a willingness to respond [to]...conflict positively, as a natural phenomenon that creates potential for constructive growth. Change is understood both at the level of immediate presenting issues and that of broader patterns and issues... Conflict transformation focuses on the dynamic aspects of social conflict. At the hub of the transformational approach is a convergence of the relational context, a view of conflict-as-opportunity, and the encouragement of creative change processes."
>
> [Lederach, 2003: 15.]

Conflict is an inevitable outcome of human interaction (Burton, 1987). It is the consequences of conflict that determine whether it is constructive or injurious (Lederach, 1997). CT offers a distinct theory and approach to conflict that evolved out of a re-conceptualization of traditional theories and approaches in order to be more applicable to today's conflicts (Miall, 2004). Contemporary conflicts are often deep-rooted, protracted, interconnected at micro and macro scales of conflict, and characterized by power and status asymmetries (Miall, 2004). Conflict transformation approaches

conceptualize immediate problems as opportunities to understand and positively change the causal relationships, decision-making processes, and systems shaping the conflicts (Lederach et al., 2007). In this way, conflict transformation addresses both the presenting problem and the deeper social conflicts with the goal of establishing sustainable conflict transformation mechanisms to address future conflicts.

Many conservation conflicts involve deep-rooted conflict. Such conflicts include deeply held values, high stakes, power imbalances, complexity, and a sense of moral superiority that may drive parties to perpetuate the fight, even when they cannot win in the short term (Burgess, 2004; Clark, 2002; Pearce and Littlejohn, 1997). Non-negotiable social and psychological needs are often at the root of conflicts that may appear on the surface to be negotiable (Burton, 1993, 1990). When threatened, identity needs, in particular, produce significant negative reactions (Lederach, 1998; Rothman, 1997). Deep-rooted conflicts often have conflict both within groups (intragroup) and between groups (intergroup), where the internal conflict actually perpetuates the external conflict, as leaders are compelled to maintain the conflict in order to protect their identity and promote group cohesiveness (Deutsch and Coleman, 2012; Deutsch, 1973).

Like other deep-rooted conflicts, many conservation conflicts often have a contentious history that adds meaning and emotion to each new dispute, deepening both sides' positions against, and negative views of, each other. Within this history, there is also often long-standing inequity where low-power groups have traditionally been disadvantaged by the basic social structure of society (Coleman, 2006). Deep-rooted conflicts are perceived by disputants to be seemingly intractable and hopeless, presenting no way out. This perception is significant because it informs action. Negative perceptions lead to negative actions, thus perpetuating conflict (Deutsch and Coleman, 2012; Deutsch et al., 2006). Paradoxically, deep-rooted conflicts often cause disputants to harm themselves and the things they value in an effort to ensure their opponent does not win (Atran and Axelrod, 2008).

Unlike many traditional conflict management approaches, CT approaches strive to move beyond the obvious dispute, focusing on the social, psychological, and systemic root causes of conflict. Further, CT advocates long-term and sustained engagement with the parties in conflict—a contrast to many conflict resolution and stakeholder engagement approaches, which typically engage in episodic periods of engagement around solving a specific and limited problem (Lederach, 2003).

Another unique aspect of CT is that it starts with a focus on the relationships and the relational context (Lederach, 2003). By designing and sustaining processes that aim to reconcile negative relationships, CT approaches seek to create conditions where actors can humanize their view of and relationships with "the other" to create the space and opportunity to move from an "us" versus "them" mentality to a more inclusive and genuine "we". By empowering diverse participation, including actors and groups usually marginalized or minimalized in such deliberations, unilateral agenda-setting or decision-making are replaced by a collaborative environment that addresses many of the power inequalities that underpin broader social conflicts and provides the space and opportunity for risk-taking and creativity (GCCT, 2014; Lederach, 2010; Lederach, 2003; Ramsbotham et al., 2011).

Conflict is a fundamental part of society's continual progression, not an isolated incident (GCCT, 2014; Lederach, 2003). Complex, deep-rooted conflicts are often defined and reinforced by the connectivity between micro-conflicts, at the individual or local scale, to macro-conflicts, at the systemic, regional, or global level (Hendrick, 2009). As such, CT embraces the unique complexity of each conflict context and so relies on an adaptable and replicable set of theories, principles, processes, and skills, rather than a highly prescriptive, step-by-step formula for stakeholder engagement. We argue that these conditions for engagement are essential if conservationists are to adapt and evolve with the inevitable changes in the socio-political and ecological systems in which they work. We further suggest that conflict transformation's long-term, systemic approach is better suited to conservation as both are engaged in multi-level, long-term strategic change.

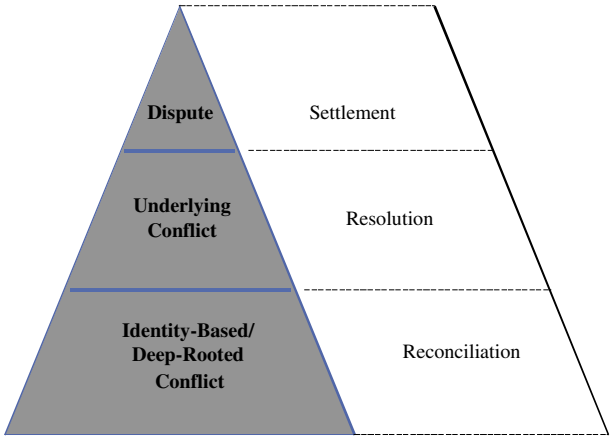

Fig. 1. The three levels of conflict that may exist in the conflict context (and the corresponding process used to address conflict at that level). Source: Adapted from Canadian Institute for Conflict Resolution (2000, 73).

3.2. Conservation conflict transformation

Conservation conflict transformation (CCT) applies CT to conservation contexts. Two models provide useful frameworks to identify and orient the practitioner to how they might address the drivers of social conflicts that CCT seeks to transform. The Levels of Conflict model (CICR, 2000) is an analytical tool we use to explore the severity and types of conflict present in a conservation conflict context. This model helps the practitioner analyze and describe the root causes of a conflict so that the subsequent intervention can address both the visible and deeper, less visible sources of conflict. The Conflict Intervention Triangle is a practical adaptation of earlier models by Moore (1986) and Walker and Daniels (1997). This model provides an orientation for planning to ensure consideration of the full range of potential sources of conflict and points of intervention.

3.2.1. Levels of conflict: An analytical model

The Levels of Conflict model enables analysis of the complexity, scope, and depth of conflict in a given setting. This model classifies three levels of conflict: disputes, underlying, and identity-based (CICR, 2000).

The first level of conflict—the dispute—is the obvious, tangible manifestation of a conflict (see Fig. 1). It is the immediate (usually material) issue seemingly at the 'center' of the conflict. For instance, a dispute could center on a disagreement over cattle grazing rights on public land; a conservation proposal for invasive species eradication that is rejected by the community; or a disagreement over preferred solutions to address livestock depredation by endangered predators.

To illustrate conflict at the dispute level, imagine a car accident between two strangers who find themselves in a minor fender-bender.[1] Addressing this dispute is relatively straightforward:

[1] This analogy was first developed by Dr. Vern Redekop in a seminar entitled, 'Deep-Rooted Conflict Theory.'

repairing the damaged vehicles and determining who is going to pay. (We will return to this analogy below).

Conflicts can exist solely at the dispute level, but more typically a dispute is also the surface expression of deeper levels of conflict. A narrow focus on the 'dispute' level explains, in part, why conservation practitioners are sometimes surprised that conflict remains or even escalates after the problem appears to have been 'settled.'

The second level of conflict that may exist in a specific conflict context is underlying conflict. Underlying conflict is a history of unresolved disputes. Its existence in a conflict context would imbue any current or recent dispute with added significance that is not necessarily obvious from the bare 'facts' of the current incident alone. Underlying conflict results from past interactions between, or decisions made by, the same parties that intensify or aggravate the present situation. The importance of this history may be further obscured because the participants themselves may find it easier to focus on and articulate a specific, concrete, economic, or physical loss, than to express more complex social or psychological issues (e.g. resentment about how past decisions by authorities were made that may exacerbate the meaning of a new incident).

To illustrate underlying conflict, imagine a similar car collision. But, in this case, the drivers are not strangers; they are a couple who recently finalized an acrimonious divorce. When they get out of the car and recognize each other, we probably understand that the conflict dynamic is very different from what played out between the two strangers. Since there is underlying conflict between this couple, the car accident is likely no longer just about a bent fender. The car repairs (and who is to blame for it) may become an opportunity to 'right' past perceived injustices. While the drivers in the first example might typically exchange information about damage and insurance, we can expect a wider range of possible reactions from our divorced couple, with a greater potential for escalation or repercussions.

In disputes with underlying conflicts, each new incident carries with it meanings derived from past interactions. These meanings are not necessarily the same for all parties. As long as one person in the dispute feels that previous disputes remained unsatisfactorily resolved, underlying conflicts distort the dynamics around the incident. In conservation, it is nearly impossible to avoid some element of underlying conflict since conservation efforts typically involve years, if not decades, of decisions and actions to study or conserve wildlife within or near human communities.

The third level of the model—identity conflict—involves values, beliefs, or social-psychological needs that are central to the identity of at least one of the parties involved in the conflict. Burton (1984: 212) explains it this way: "when the non-material identity needs of a people are threatened, they will fight." In these cases, the disputant(s) feel that the stakes are so high that they are willing to take extraordinary measures to 'win.'

Let us return to our car collision analogy to explore the implications of identity-based conflict. In this scenario, the car accident takes place in Bosnia and Herzegovina during the aftermath of the war in 1996. By the conclusion of the fighting, authorities of the three communities ensnared in the civil war—Serbs, Croats, and Bosniaks—issued their own car license plates to distinguish between the different groups. Imagine our car accident again, except this time when the drivers scramble out of their vehicles, each finds that the other car has the 'wrong' license plate on it. The tension will, most likely, far exceed either of the previous examples. Our drivers may never have met each other or have personal history. Yet, they are likely to make prejudicial assumptions and judgments based on the other's group affiliation and may ascribe responsibility to the other individual for past actions taken by other members of their group (sometimes generations before). This additional layer of conflict contributes greater intensity and complexity to the presenting situation.

Intense animosity between individuals based on group or social identity is not unique to civil war. Many conflicts in conservation also involve deeply rooted values, needs, and beliefs, in which one group's identity may actually be defined in opposition to another's because of perceived threats to their identity or way of life. For example, a conservation organization's presence and resources devoted to wildlife needs may be perceived as ignoring or slighting the physical and social needs of the local community (Madden, 2004). Ranchers or hunters may experience national wildlife protection laws as an infringement upon their sense of autonomy (Clark et al., 2010; Simon, 2013). For conservation professionals whose identity is focused on the conservation of wildlife, actions that threaten to extirpate a species may be considered a profound moral violation.

The above examples illustrate intergroup identity conflict, but intragroup conflict also offers examples of identity conflict. Conservation organizations and professionals may perceive others within their field, or even within their organization, as a threat to their ability to realize their potential or attain recognition for their work. Hunters, while often lumped together as single group, often contain conflicting sub-groups, including members who divide themselves along pro- or anti-predator conservation lines or define themselves as anti-government and pro-government advocates. As diverse as human nature is, so are the possible manifestations of identity conflict.

Analyzing wildlife conservation conflicts with the Levels of Conflict model might reveal, for example, that a dispute about livestock depredation, crop damage, or the legal determinants for wildlife management is fueled by underlying and identity issues. Or it may suggest that a conflict that began as a material dispute has evolved into an identity conflict over time, as those involved invest themselves more in the dispute and come to identify themselves and their group with their positions in the dispute (Lederach, 1997). Eventually, these identity conflicts become so deep-rooted that they become an integral part of a person's or group's identity. This identity-based level of conflict is intense and complex, and may appear 'irrational' compared to the specific current conditions or material issues in question.

The energy, effort and processes needed to address these different levels of conflict differ greatly. Dispute level conflicts, if that is all that exists, can be solved relatively simply once the isolated incident is rectified. The model employs the term 'settlement' to describe efforts to solve the problem at the dispute level. Disputes in society are often settled in courts using a rights-based system with legal codes for determining responsibilities, evidence, and outcomes. Conservation groups use lawsuits tactically, for example, to stimulate or halt government management actions. (Yet these lawsuits are often both a symptom and cause of deepening conflict.) Similarly, governments use existing laws as a means to ensure compliance. Compliance with a 'settlement' by a stakeholder may settle the immediate dispute; but, if deeper levels of social conflict exist and are not addressed, settlements are only temporary and those involved will likely use (or create) another opportunity to redress perceived injustices.

The levels of conflict model uses the term 'resolution' to describe efforts to solve underlying conflicts, while 'reconciliation' is used to reflect the shift in identities of the disputants necessary to address identity-based conflicts. The temptation is often to ignore or disregard these social conflicts in stakeholder decision-making processes as they do not appear to be directly related to, or are believed to be outside the purview of, conservation (Dickman, 2010).

Even new actors, stakeholder groups, approaches and tools are likely to be affected by the deep-rooted conflicts associated with previous or related people, groups or efforts, with the result that new disputes may be articulated in the familiar vocabulary of

preexisting conflicts, and new actors may be subject to the same reactions and prejudices of their predecessor. Research suggests that when deeply-held core values are involved, the intensity of opposition can actually increase rather than diminish when the deeper-rooted conflicts are ignored and material incentives (dispute level tactics) are offered as a compromise (Ginges et al., 2007).

While disputes tend to be tangible, material, and easily identifiable, underlying and identity-based levels of conflict are often ambiguous, intangible, and either unspoken or responded to ineffectively. Underlying and identity-based conflicts may find expression as a dispute because expressing these deeper-rooted conflicts as a dispute gives tangible focus and clarity to a group's concern (Rothman, 1997). It may also be easier or more socially acceptable to speak of, or respond to, material losses or a specific incident, rather than deeper emotional or psychological needs or injuries (Sites, 1990). Finally, the inherent focus of conservationists tends to steer dialogue toward the wildlife itself (or ecosystems) and away from the impact that conservation decisions and actions may have on a person's psychology, culture, beliefs, values, or history (Clark, 2002; Dickman, 2010; Madden, 2004; Redpath et al., 2013).

3.2.2. The conflict intervention triangle: Planning interventions

The Conflict Intervention Triangle model provides a conceptual orientation to conflict intervention planning. Our adaptation of the Conflict Intervention Triangle provides a useful framework for relating three dimensions of conflict: process, relationships, and substance (Moore, 1986; Walker and Daniels, 1997). Moore's original version of this triangle and Walkers and Daniels' adaptation both use the term "procedural" instead of "process." By definition, 'procedure' suggests there is an official or established way of doing something. 'Process,' on the other hand, implies a series of actions to achieve a goal, and we believe this term more accurately captures the flexibility and adaptability needed to navigate the complexity of conflict. Moore originally used the term "psychological" instead of "relationships," yet given the numerous psychological needs that can be addressed through a good process and recognizing the significance of individual and group relationships in shaping a conflict outcome, we prefer to use "relationships," consistent with the Walker and Daniels model.

By visualizing the three aspects of conflict intervention in this model, one can more easily resist the impulse to focus only on dispute level solutions, recognizing that the processes and relationships of any intervention require equal attention (see Fig. 2). In fact, while all three aspects of conflict are important, the process and relationship dimensions of a conflict intervention offer a greater opportunity to address underlying and identity-based conflicts.

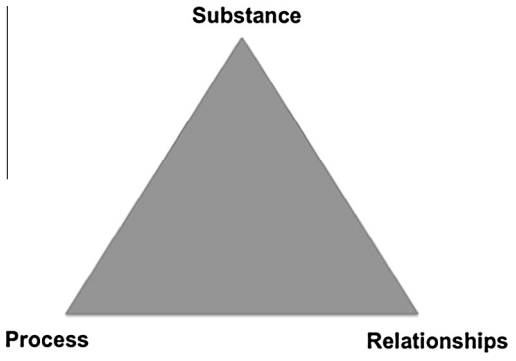

Fig. 2. Conflict intervention triangle model showing the three potential sources for conflict and three dimensions of conflict intervention essential for the transformation of conflict. Adapted from Moore (1986) and Walker and Daniels (1997: 22).

Of the three sets of factors aligned with the points of the triangle in Fig. 2, 'substance' is the most straightforward and largely corresponds to the dispute level conflict in the Levels of Conflict model.

Process factors relate to decision-making design, equity and authority, and how (and by whom) these are exercised. For instance, parties might agree with the merits of a particular solution, but if they do not feel their concerns or input were sufficiently recognized in the process, they may reject any decision reached, even a decision to employ a solution that addresses their substantive concerns. Conversely, parties are more likely to accept decisions not fully in line with their views or values if they felt genuinely respected and invested in a decision-making process (Fisher et al., 1991; Reed, 2008; Leong et al., 2009).

Recent research findings from the business sector support the claim that the quality of the decision-making process influences the durability and success of solutions (Lovallo and Sibony, 2010). Researchers reviewed 1,048 critical business decisions over five years, and found that "process mattered more than analysis [of potential solutions] in determining the quality of outcomes, by a factor of six" (Lovallo and Sibony, 2010: 6).

Effective decision-making processes not only increase the innovation and durability of solutions, but they also strengthen relationships between participants. Improved communication and trust in relationships increases the likelihood that future problems will be addressed more effectively, and that previous solutions can be more easily adapted to changed circumstances (Ansell and Gash, 2007; Reed, 2008).

In designing processes, conservationists and governments often resist giving up decision-making control, because they already have the law on their side or they may fear what will happen when stakeholders who seem less committed, or even antagonistic to conservation objectives, are given a legitimate voice in decision-making. They understandably fear that involving other stakeholders in decision-making around wildlife risks unacceptable compromise or loss of control in conserving species and spaces (Leong et al., 2009; Rudolph et al., 2012). Yet, anecdotal reports from conservationists and government leaders that use CCT approaches suggest that instead of having to live with less than desirable trade-offs, they can actually expand the range of win–win solutions by addressing these deeper-rooted social conflicts (Beggs, 2012; Booker and Maycock, in press; Cullens pers. comm., 2013; Gotliffe pers. comm., 2013; Kenyon pers. comm., 2013; Lewandowski, 2015; Mupunga pers. comm., 2012; Odorkot pers. comm., 2012; Tembo pers. comm., 2013). More rigorously assessed, longer-term application of conflict transformation principles in other fields support these anecdotal findings (Anderson and Olson, 2003; Hendrick, 2009; Lederach et al., 2007; Lederach, 2003, 1997; Smock and Serwer, 2012).

The third side of the conflict intervention triangle is 'relationships.' The relationship factor of conflict interventions is most easily illustrated in personal conflicts between individuals where the quality of a relationship or the level of respect and trust that exists between two people can itself become a source of contention. A lack of trust can be extended to include group relations as well. Identity-based conflicts find their expression in the relationship among communities, between a community and conservation authorities or the state, or even between conservation groups competing with one another toward the same conservation goals. In our experience, the relationship basis for conflict is too often ignored, avoided, or treated too lightly by conservation and government authorities who label other groups as 'partners in conservation' when that relationship is still wrought with distrust. Experience suggests that stakeholders will undervalue or even sabotage conservation solutions offered to solve immediate conservation issues if they do not also meet deeper social and psychological

needs, including those met through relationships (Satterfield, 2002). Yet, by the same token, the time and effort spent developing individual relationships, particularly across the lines of conflict, can help catalyze broader, positive social change (Lederach, 2005; Wheatley, 1998).

Conserving wildlife today requires a change in orientation to and understanding of conflict, as well as the capacities and approaches needed to achieve long-lasting success. A good process gives attention to the dialogue and relationship-building needed to foster dignity, respect, and trust among stakeholders, as well as to support more effective decision-making around and commitment to tangible solutions. A good process will create the space and opportunity for a reconciliation of deep-rooted social conflicts that make reaching and sticking to a decision about a dispute more viable. Too often in the urgency to save imperiled species, we rush to create solutions through processes that fail to transform the roots of social conflict and thus fail to shape the relationships necessary for long-term success. By contrast, the CCT approach advocates 'going slow to go fast' (Ury, 1991). To that end, giving attention to the decision-making process and relationship components of a conservation conflict is as important as attending to the substance of the conservation solution and improves the chances of long-term success. (Hicks, 2001; Lederach et al., 2007; Lederach, 2005; Walker and Daniels, 1997).

3.3. Conservation conflict transformation in action: Two case studies

The following two cases demonstrate both the versatility and replicability of conflict transformation in different contexts. The first case involves a multi-stakeholder intervention that included capacity building in conflict transformation. The second case illustrates conflict transformation led by a conservation leadership team after participating in a capacity building workshop. Although CT relies on a replicable set of principles, skills, theories, and processes rather than a formulaic process, we believe that one of the best practices in transforming conflict involves building the capacity of conservation teams and diverse stakeholders (Lederach, 1997; Manolis et al., 2009). First, capacity building in conflict transformation imbeds and sustains a suite of capacities within the people, institutions, and groups engaged in a conflict and responsible for its continual transformation. Second, capacity building builds awareness among stakeholders of their role in creating or perpetuating conflict, as well as their power to transform it. And finally, capacity building provides a safe and neutral setting in which to create 'small wins,' build trust, and foster a greater motivation to work constructively together (Ansell and Gash, 2007; Brown, 2003). The following cases offer only a partial exploration and explanation of the complexity, challenges, and positive changes that resulted.

The first case involved a state-level stakeholder conflict in a western U.S. state over mountain lion management and public safety. The conflict was largely between a state government agency and several wildlife conservation non-governmental organizations (NGOs). At the dispute level, the groups disagreed over how public safety incidents were being handled and whether a "shall kill" designation (which mandated lethal control as the only option) was appropriate in all cases of public safety. Beyond this dispute the NGOs felt marginalized from decisions around mountain lion management and the government agency felt unfairly and negatively targeted by some NGOs' use of legal action and the media. In sum, the stakeholders did not trust one another, and became suspicious of and isolated from each other. Poor communication and very limited information sharing characterized their relationship. Any action or communication by one group toward the other, even well-intentioned, was easily misconstrued and mistrusted. Although the necessary science of mountain lion behavior and biology was available, there was little social capacity to use and apply that information to collaboratively improve current wildlife responses to public safety incidents. As a result, when a new public safety incident with mountain lions occurred, the management response improved little and stakeholder relationships continued to degrade. And, while the stakeholders focused their reactions on the new incident, the history of unresolved disputes influenced their reactions. The identity-based conflict manifested itself as an "us versus them" stance with parties making prejudicial assumptions about members of the other group simply based on their institutional affiliations.

Following a particularly controversial public safety incident at the end of 2012, a state legislator proposed new legislation to add flexibility in the use of non-lethal control in response to public safety incidents. Further, the proposed legislation mandated that the government agency would now share responsibility with other wildlife experts within the state when responding to these difficult situations. To be clear, the government staff involved in the 2012 incident wanted assistance and additional flexibility in handling the situation, but believed their hands were tied by existing rules that prevented them from seeking assistance or using any means other than lethal control. That said, once the new legislation was proposed, staff from the government agency felt "punched in the gut" (Kenyon, pers comm, 2013). Although the legislation would give them greater flexibility and access to resources, agency personnel opposed the proposed law due to the "us versus them" depth of social conflict that existed (Riske, pers comm, 2013).

Within three months of the precipitating crisis, in early 2013, government and NGO stakeholders in the conflict participated in a five day capacity building conflict intervention and planning process facilitated by HWCC. What resulted was a humanizing of "the other" and reconciliation of relationships that were previously undermined by underlying and identity conflict. This enabled the development of productive, trust-based relationships among the stakeholders. In turn, those relationships helped foster the creation of a new problem-solving method designed to generate and implement wildlife response solutions; formally sustain and nurture stakeholder relationships; and institutionalize a creative, equitable, and transparent decision-making process. Within four months of the workshop, a senior scientist for the government agency reported that "lion management is now moving forward after decades of stalemates because of our implementation of CCT principles and practices. We're now getting to a point where we've wanted to be for over 40 years. . .and on an easier road." The other stakeholders agreed (Madden et al., 2013). A six month evaluation of their progress found that a significant indicator of success was that when successive challenges arose, the trust and capacity of these individuals and groups to work together grew and deepened. Indeed, in a short period of time, this group transformed a decades-long cycle of entrenched conflict into effective shared problem-solving and mutual trust and respect.

The second case took place in an area of Africa that has experienced dramatic increases in elephant poaching and trafficking partly due to porous and corrupt borders, extreme poverty and isolation, and increased access following establishment of a foreign timber concession in the area. A team from a small conservation organization manages a 600 square kilometer concession within the larger reserve. Despite the organization's good relationships with the communities and dedication to developing alternative livelihoods, providing education, and improving law enforcement, poaching continued to increase. The leadership team participated in a conflict transformation capacity building workshop in 2012 and immediately put their skills and capacities to the test.

At the time of the conflict transformation capacity building workshop, the conservation organization was training community members to become anti-poaching scouts in the concession. A few

weeks after the CCT workshop, the scouts were ready to graduate and the conservation organization held a graduation ceremony and party, and invited all the villagers and their chiefs. One chief spoke eloquently about the need for conservation and the importance of putting an end to poaching and snaring. The next day the scouts went out on their first anti-poaching patrol and they found snares. The evidence led them back to the same chief who made the eloquent pro-conservation speech the day before. When they went to the chief, who is a powerful shaman for a community that believes strongly in the spirit world, he threatened to put a curse on them that would result in death to them and their families if the scouts arrested him. Word spread quickly, and other villages and chiefs were angry and emotional about this incident. Suddenly, the entire project reached a crisis. If the scouts arrested the chief, they and their families might be killed. If they didn't, it would undermine the credibility of the project and the organization. The conservation team recognized that the anti-poaching project could only succeed if the entire community was fully behind all decisions. So, instead of providing solutions, the conservation team developed a process to bring the communities together and empowered them to make the decision. Having the community develop the solution gave them ownership over it. Eventually, another village chief suggested an amnesty in which all the villagers and chiefs would turn in their snares over the next two weeks and after that time anyone caught snaring or poaching would be arrested, chiefs and villagers alike. Everyone agreed. Over the next two weeks, for the first time in the history of the reserve, villagers and chiefs—including the previously-caught chief—turned in their snares voluntarily (Beggs, 2012).

In the following months, the conservation team applied CCT principles in other projects, including using an education center to train the community in skills they wanted to learn. The community asked to learn construction skills because they wanted to build a mosque. A narrow, linear view of conservation might suggest that building a mosque is a waste of conservation resources. Yet, building the mosque brought the community together and it met and strengthened their non-material needs for spiritual security, meaningful engagement, and connectedness. In supporting these social, spiritual, and psychological needs of the community, the conservation team gave dignity and respect to the deepest values and beliefs of the community. In turn, the conservation team earned the community's respect, trust, and allegiance. The social cohesion that resulted translated into a desire and strength to resist negative outside influences that would corrupt the integrity of their community, such as pressure to poach elephants.

As a result, during a period of time where elephant poaching and trafficking skyrocketed in the surrounding reserve (with 2–3 elephants killed per day), this 600 square kilometer concession lost only 8 elephants total in the same year, due to poachers from outside the community. This represented a significant reduction in poaching from the year before and a significant contrast to the area outside this project's jurisdiction. In addition, the villagers started actively pursuing suspected poachers and ensuring their arrest, while simultaneously treating the suspect in a dignified and respectful way. In the rest of the reserve, poachers are still rarely, if ever, turned into the police (Beggs, pers comm, 2013).

4. Conclusion

Conservation conflict transformation (CCT) enables the development of innovative, durable solutions through analyses and processes that simultaneously help reconcile negative relationships and transform the political, social, or economic structures and systems—the enabling environment—impacting conservation efforts. CCT recognizes the natural ebb and flow of conflict, and as such, is a dynamic, continually evolving opportunity for creativity through and evolution of relationships (Lederach, 2005, 2003). The continual engagement that maintains constructive and positive relationships and decision-making processes allows conservation efforts to adapt more effectively to ongoing changes in social and ecological systems.

Successful integration of conflict transformation into conservation requires analysis of all levels and sources of conflict within the social system in which conservation is embedded. Such a thorough analysis is an essential first step to avoid unintended consequences and foster social conditions that support decision-making directed toward sustainable conservation (Hendrick, 2009; Lederach, 1997; Lederach et al., 2007).

We argue that conservation efforts would benefit from improved capacity and resources for understanding and transforming the complex drivers of deep-rooted social conflicts impacting wildlife conservation and management actions. HWCC is currently leading efforts to integrate CCT in wildlife conservation efforts, and is being joined by a growing list of organizations whose staff and leadership have developed their capacity for and moved to embed CCT principles in the operation of their organization and projects. Moreover, as recognition of the interactions between conservation and social conflict (including warfare and organized crime) grows, more governments, peacebuilding institutions, universities, wildlife conservation organizations, sustainable development institutions, and others are moving to better understand and respond to the challenges, opportunities, and systemic connections present in these complex conflicts (Dudley et al., 2002; Gibbs et al., 2010; Hanson et al., 2009; Wellsmith, 2011). As our community of practice grows, we look forward to learning from and supporting one another in advancing the field.

To that end, a more systematic assessment of CCT's merits and impacts is needed. Nevertheless, the last few years of anecdotal evidence suggest that integrating CCT into conservation efforts can make a significant, positive difference. As our society's social carrying capacity for wildlife depends on conservation's ability to reconcile social conflicts impacting wildlife conservation, we hope that these tools and approaches can continue to contribute to innovative solutions to long-standing conservation challenges.

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