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Conservation leadership must account for cultural differences

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Abstract

Effective leaders are critical in determining successful outcomes of conservation programs. As the business and economic leadership literature shows, awareness around cultural differences in leadership attributes is important for positive project outcomes set in inter-cultural contexts. We conducted a systematic review of the literature to understand whether, and how, the influence of cultural context was acknowledged when describing successful leadership attributes of conservation leadership. We found fifteen papers from different geographical regions (Africa, Asia, Europe, North America and South America) explicitly addressing conservation leadership attributes. We further explored how characteristics of four key attributes (i.e. motivating others, establishing a shared vision, effective communication and partnership building) were addressed within these different cultural settings. Our review shows that the discourse on how culture influences attributes of a conservation leader and its implications for conservation outcomes is very limited. Awareness and sensitivity around this influence is important as cultural differences may either facilitate or hinder conservation project outcomes, particularly when people from different cultural backgrounds work together.

Keywords

Capacity-building, conservation, cultural diversity, effectiveness, leadership attributes, leadership.

Introduction

Biodiversity conservation is a global concern and the field of conservation science has grown rapidly since the mid-1980s (Meine et al., 2006). Despite the critical need for competent leaders in conservation (Baral, 2013), conservation scientists have only recently started to systematically document the key attributes of successful leadership and its role in more effective conservation actions (Black et al., 2011; Black, 2015; Bruyere, 2015; Dietz et al., 2004; Martin et al., 2012). By comparison, leadership qualities and techniques have been thoroughly researched within the fields of business and politics (e.g. Day & Antonakis, 2012; Den Hartog & Dickson, 2012). Conservation leadership, as with leadership in any other field, is complex as it must take account of aspects relating to gender, ethnicity, geography, development, culture and politics (Game et al., 2014; Gordon & Berry, 2006). Furthermore, conservation or environmental problems are typically ‘wicked’ problems (Game et al., 2014), owing to the long lead times to solutions, complex interactions between people and issues, the need for multi-disciplinary integration, and confrontational settings (Gordon & Berry, 2006). Tackling such problems often require competent conservation leaders to work across different geographical, ethnic or disciplinary bounds. Examples of successful leadership in conservation or environmental issues within the literature include wildlife reintroduction programs (e.g., Sutton, 2015), environmental governance programs (e.g., Evans et al., 2015), and community management of culturally-important natural resources (e.g., Housty et al., 2014). Nevertheless, we cannot ignore the fact that what leaders do and why they do it is influenced by their specific culture, which is defined by their industry, organization or country (Den Hartog & Dickson, 2012).

Historically, the ways in which researchers study and think about leadership have been strongly influenced by Western-led studies (i.e. originating, or associated, with Europe and Christian religion; Kurth, 2003) (Day & Antonakis, 2012). However, as our society becomes increasingly globalized, international leaders and managers are encouraged to develop a wider set of ‘culturally intelligent’ leadership skills and knowledge (Beer, 2012). For instance, these skills can help leaders advance their international (business) relations (Beer, 2012), communicate the organization’s vision (Den Hartog & Dickson, 2012) or account for different sensibilities (Dietz et al., 2004) when working with a

culturally diverse workforce. Research in social psychology shows that while assertive and tough leaders may be more desired in certain societies (e.g. Austria, Germany, Italy, Japan, Mexico, the United Kingdom and the United States), leaders who seek consensus and are intuitive may be more desirable in others (e.g. Costa Rica, Sweden, Norway and the Netherlands; Hofstede, 1980, 2001). Thus, having the knowledge and skills to act and make decisions in a culturally sensitive manner has been shown to be more effective when leading multicultural teams, as well as managing projects within an international context (Mendonca & Kanungo, 2007).

Attributes (i.e. qualities or characteristics of a person) are often used to describe effective leaders. The Global Leadership & Organizational Behavior Effectiveness (GLOBE) project identified that although some leadership attributes are considered to be universally endorsed (such as being trustworthy) or universally rejected (such as being egotistical), the majority of leadership attributes were actually found to be culturally contingent (Chhokar et al., 2007; House et al., 2004). Moreover, the behavior of a leader can be governed by what is expected or desired from the society within which they are operating, and successful leaders were found to be those who aligned their behavior with the desired societal leadership style (Chhokar et al., 2007; House et al., 2004). The recent literature on conservation leadership identifies key attributes that are necessary for conservation leaders, as well as for those teaching conservation leadership. These include: effectively developing a vision and establishing values (Black et al., 2011; Bruyere, 2015), clearly identifying a sense of purpose (Black, 2015) and being able to foster pluralistic viewpoints and approaches (Green et al., 2015). However, given the importance of being cognizant of, and sensitive to, different societal leadership styles within the large number of ongoing international conservation projects (Wilson et al., 2016), we sought to understand whether and how cultural differences were acknowledged in relation to conservation leadership attributes in the existing literature. We acknowledge that culture is a set of distinctive features of society or a social group (e.g. spiritual, material and intellectual), and includes ways of living together, value systems, traditions and beliefs (Matsuura, 2001). We further recognize that a number of factors can influence culture, such as a person's educational, professional, and organizational characteristics (Beer, 2012). Therefore, large cultural differences can exist within a

society (Koch & Koch, 2007). For the purpose of this study, we use the geographical area of the world in which a study was set as a proxy for culture. We undertook a systematic review of the literature to address two specific questions:

- (1) Which leadership attributes were most prominent in the current conservation and environmental literature?
- (2) How does culture (as represented by country or nationality) influence conservation leadership attributes in the literature?

Following a recent comprehensive study on international conservation leaders (Bruyere, 2015), we examined whether attributes listed in this study were, among others, mentioned in the papers of our review. We also discuss a subset of these attributes to evaluate the importance of ‘cultural competency’, which we define as the ability to account for cultural differences, in leadership. Our review aims to provide novel insights regarding cultural differences in conservation and environmental leadership, and raise awareness about the issues that may arise when people with different cultural backgrounds work together. We hope these insights can encourage more effective collaborations to help improve conservation outcomes in the long run and build a more robust understanding of what it means to be an effective leader in international conservation projects.

Methods

Following the methodology outlined by Pullin and Stewart (2006), we searched for journal articles published in English between 1990 and 2015 using the keywords ‘sustainability leadership’ OR ‘conservation leadership’ OR ‘conservation leader’ OR ‘environmental leadership’ OR ‘environmental leader’ under TOPIC in the database of ISI Web of Science (n=135). We included 25 additional studies from an accompanying search using the search terms ‘conservation’ AND ‘leadership’ AND ‘culture’. We reviewed titles and abstracts of all the 160 studies and selected a study for analysis if it: (1) addressed leadership or leadership attributes, (2) addressed biodiversity

conservation or environmental management, and (3) mentioned or discussed leadership or leadership attributes in relation to country or nationality. For each of the final selected studies (n=15), we then recorded whether any of the 19 leadership attributes identified by Bruyere (2015) (see Fig. A1), was mentioned in the study. Any additional leadership attributes mentioned in the selected studies were recorded in an 'others' category. A subset of the studies was independently re-assessed by all authors to check for consistencies in study selection and data extraction. See Appendix A1 in supporting material for detailed literature search protocol and the data extraction sheet. Finally, we investigated known cultural differences for these attributes in the current business leadership literature to identify potential strategies for conservation leaders and to encourage greater cultural competency within conservation leadership.

Results

We found 15 papers describing conservation activities in five continents (Africa: 1, Asia: 5, Europe: 3, North America: 4, South America: 2), and 13 countries or groups of countries (Brazil, Canada, China, Japan, Latin America, Romania, South Africa, Sweden, Taiwan, Thailand, United Kingdom, United States and Vietnam) to be relevant for our review. Most studies (60%; 9 papers) did not mention the influence of culture on conservation leadership attributes but it was possible to infer cultural influence. For example, when a leadership attribute was mentioned in a study, we extracted any relevant information and description of this attribute and allocated it to the geographical area in which the study was set. The remaining 40% (6 papers) of the studies mentioned or discussed the role of culture explicitly.

Leadership attributes in the current conservation and environmental leadership literature

We identified all of the 19 leadership attributes that were listed by Bruyere (2015), plus one additional attribute ('communication', defined as verbal communication in our analysis; Fig. A1) within these 15 studies. The three most frequently reported leadership attributes were: 'motivating others', 'establishing a vision' and 'communication' (in 80%, 67% and 60 % of the studies, respectively). The

least frequently mentioned attributes in our literature review (i.e. those that were mentioned only once) were ‘research skills’, ‘risk assessment’ and ‘development and fundraising’. While ‘partnership-building’ (47%) was the seventh most frequently mentioned attribute in our review, it was rated as the top priority in Bruyere’s survey (2015). We therefore include it in the discussion provided below.

Influence of culture on conservation leadership attributes

Motivating others: Motivating others was mentioned most often and included examples of community outreach and engagement (e.g. Housty et al., 2014; Schelly et al., 2012; Takaki & Maezawa, 2005). Two papers referred to motivating others through role models. The first study describes how ‘leading by example’ resulted in behavioral change, reducing by half the total energy consumption of one large public high school in the United States (Schelly et al., 2012). In this case, the leader, an environmental science teacher at the school, educated as well as inspired students and colleagues to take action by making them feel that they could make a positive difference in the world. The second study, describing a tiger reintroduction project in India, illustrates the importance of ‘conservation champions’ (i.e. individuals that support their idea through confidence, enthusiasm and persistence) in motivating people and changing their behaviors (Post & Pandav, 2013). Here, people were motivated by witnessing the actions of a ‘conservation champion’ including the strong, personal relationship of this leader with the tigers. The study found that tiger reintroductions in reserves were more successful, despite considerable odds, when led by a ‘conservation champion’. Saenmi & Tillman (2006) referred to a program in Thailand that focusses on empowering tribal and indigenous groups to regain their cultural knowledge. Here, the involvement of community members and community groups was found to be crucial to maintain and sustain motivation of the people involved in a project. In all of these cases, the importance of key individuals who can engender support for action with personal confidence, enthusiasm and persistence, was critical.

Establishing a shared vision: This was the second most frequently mentioned attribute in the reviewed studies. We found evidence that establishing a shared vision brought together people from

different backgrounds in conservation related scenarios. For example, German researchers identified that creating a shared vision among participants in their citizen science butterfly monitoring program in Romania helped overcome cultural barriers, as it enabled a shared sense of belonging among the participants, and potentially motivated communication and understanding between participants (Loos et al., 2015). Similarly, leaders within the Kaiabi indigenous culture in the Brazilian Amazon were successful in garnering the support from the non-indigenous people against the Belo Monte Dam in the Xingu River by persistently using their historical experiences and knowledge to share their vision for safeguarding their livelihoods (Athayde & Schmink, 2014). Another article targeting concepts on long-term strategies for large carnivore management in Scandinavia emphasized the necessity of government agencies involving different groups of stakeholder (including non-governmental organizations and the public) in environmental planning strategies in order to develop a shared vision (Sjölander-Lindqvist et al., 2015). Stakeholders that effectively contribute their 'stake' to this vision have also been referred to as 'stakesharers' given that they share their ideas, solutions, threats and opportunities (Torkar & McGregor, 2012). The involvement of different stakeholders with varying power and competencies is considered crucial, not only for building integrative, mutually-shared visions, but also to avoid local criticism of the value of top-down state-mandated action.

Communication: In addition to the conservation attributes listed by Bruyere (2015), we found that communication was frequently mentioned in the literature. While communication can be verbal (e.g. sharing information, providing feedback) and non-verbal (e.g. body language), we focused on verbal communication for the purpose of our review. We found that verbal communication was emphasised when groups with different educational or technical experience, knowledge and motivations worked together (Housty et al., 2014; Sutton, 2015). For the Sea Eagle Recovery Project in Scotland, communicating the purpose of the project as well as the contribution of each team member to the success of the project were found to be effective in gaining people's support (Sutton, 2015). This implies that inclusive and transparent communication is particularly important when scientists and the public work together, for example, in citizen science projects (Sutton, 2015). Communication training was also mentioned in a study on community-based ecotourism in Vietnam (Tran & Walter, 2014).

Here, local women were offered communication workshops to effectively deliver messages on environmental issues and conservation to community members. The challenge of communicating across cultures was illustrated by Athayde and Schmink (2014). They showed how lack of communication between political organisation in the Brazilian Amazon and indigenous groups was the challenge to effectively manage indigenous territories. This was attributed largely to the organisation's operation and communication strategies. Critically, these were based on Western models, and therefore unable to clearly convey in a culturally-appropriate way their message to the indigenous groups they wished to engage and to work with towards securing and managing indigenous territories in the Brazilian Amazon.

Partnership building: Being skilled at partnership-building was rated as the most important attribute for conservation leadership in Bruyere's (2015) study. In our review, the importance of building partnerships for successful outcomes was mentioned whenever a variety of stakeholders or groups were involved in conservation projects (Housty et al., 2014; Sutton, 2015), or when a cultural barrier had to be overcome (e.g., between German researchers and Romanian citizen scientists; Loos et al., 2015). For instance, First Nations people in Canada guided research and conservation planning based on their relationship with their environment and their traditional cultural values, and demonstrated that collaborative, culturally-appropriate conservation with different stakeholders leads to effective management of natural resources (Housty et al., 2014). Partnership building among experts who were able to provide strong political and scientific advocacy ('champions') for a project was also evident in Sutton (2015)'s example of the sea eagles reintroduction program in Scotland. Partnerships between culturally diverse local groups in the Brazilian Amazon led to the empowerment of indigenous groups in biodiversity conservation (Athayde & Schmink, 2014).

Besides conservation leadership attributes, we found some culture-specific examples that addressed conservation leadership in general. As in most spheres of governance, we found a gender imbalance in conservation-related leadership positions (Kiamba, 2008). In Northern Vietnam, which is a patriarchal society, a study investigating gender in ecotourism showed that although women were interested in

leadership roles and conservation, men were selected over women for these positions (Tran & Walter, 2014). Another study, addressing cultural influences on leadership in general, showed that a sympathetic personality and non-hierarchical leadership approach were considered to be beneficial for effective leadership in former communist countries such as Romania (Loos et al., 2015). This was attributed to the fact that personal interrelationships are highly valued in these countries (Sztompka, 1993). One common discussion point in studies addressing indigenous cultures was that leadership must interact with the traditions of a group's culture in order to be successful (Fabricius et al., 2007; Housty et al., 2014), thus requiring sensitivity towards cultural issues, and knowledge of cultural contexts.

Discussion

The small number of studies ($n = 15$) found in our review confirms that cultural aspects of conservation leadership is underrepresented in the literature and studies discussing leadership attributes are particularly limited. The selected studies spanned five continents, with most studies originating from Asia, indicating a lower North American bias than is generally present in the leadership literature (Hartog & Dickson, 2012). The cultural diversity across the reviewed studies indicates a great deal of scope for further exploration. Leaders need to have the skills to implement strategies that can effectively establish a shared vision or build partnerships in different cultures. These strategies need to be based on the local cultural context and values in order to be effective at improving conservation outcomes. Given the small number of studies identified in our review, we cannot draw broad scale generalizations about cultural differences of these attributes. The business and political literature, however, provides some guidance, as well as describing the challenges of adapting and working in different cultures

Influence of culture on conservation leadership attributes

Motivating others and empowering people by showing them that they can make a difference by acting as conservation champions or enabling leaders (Uhl-Bien et al., 2007) is a common message in

leadership texts and books from the United States (e.g. Maxwell, 2007). This has been described as an individualistic culture by House et al. (2004). A critical driver of motivation in individualistic cultures is to have the freedom to choose one's own actions (House et al., 2004). This means that people from strong individualistic backgrounds might be more willing 'to give their best' when given the chance of individual choices, compared to people from strong collectivistic backgrounds (House et al., 2004). Schelly et al. (2012) investigated the impact of a role model on high school students in the United States while Post & Panday's (2013) study focussed on the influence of conservation champions in India; a subcontinent with individualist and collectivist cultural traits (Hofstede et al., 2004). In both examples, people were motivated to change their behaviours by following an inspiring role model while their own actions were considered to be driven by individual choices. In contrast, people from collectivistic cultures, such as Thailand, may be motivated by external influences as long as this external driver is perceived as originating from an in-group member (Eisenberg 1999). Saenmi and Tillman (2006) provide an example from Thailand suggesting that the critical driver of motivation was to keep people involved. Collectivists' goals are not at the individual, but rather at the group level (Eisenberg, 1999).

Establishing a shared vision involves specifying and agreeing on a desirable outcome among the stakeholders (Bruyere, 2015). The case studies illustrating successful collaborations between stakeholders presented by Loos et al. (2015) and by Athayde and Schmink (2014) indicate mutual agreement on desirable outcomes between German and Romanian researchers for the butterfly monitoring program, and between indigenous and non-indigenous stakeholders in the Brazilian Amazon once indigenous perspectives were considered, respectively. Nevertheless, what is actually considered visionary varies from one culture to another (Den Hartog & Dickson, 2012) and this may be attributed to the values prevalent in that culture (Huffman, 2003). Values describe what is important to people, reflecting their most basic desires and goals, and help people justify their choices (Rokeach, 1973). However, some values are more strongly expressed in one culture than another (Inglehart & Welzel, 2005), and as a result the geographical location (used as a proxy for culture in this study) may influence leadership styles accordingly. For instance, Inglehart and Welzel (2005)

suggest that Islamic and African countries put more emphasis on traditional values (e.g. religion and deference to authority) and survival values (e.g. economic and physical security) compared to European countries that stress on secular values and self-expression (e.g. environmental protection and gender equality). The World Values Survey provides further guidance about the values predominantly expressed in one culture (Institute for Comparative Survey Research, 2017).

Communication was mentioned in most of the reviewed studies. This is not surprising, given that it is nearly impossible to be a successful leader and to influence others without being an effective communicator (Dietz et al., 2004). Working in different cultures and with different stakeholders, as in the reviewed studies, requires careful articulation of project goals and vision. This means adapting to different communication styles in addition to overcoming language (and other cultural) barriers. For example, in some western cultures, such as in the Netherlands, being direct and unambiguous in order to directly confront issues (referred to as ‘straight-shooting’) is acceptable and may even be expected of a leader (Chamorro-Premuzic & Sanger, 2016). Assertiveness in leaders is also desired in some predominant cultures within Germany, the United Kingdom and the United States (Hofstede, 1980, 2001). However, in other dominant cultures, particularly in Asia, as well as in New Zealand, Sweden, Canada and much of Latin America, a less direct approach is considered more appropriate and important in establishing relationships when working in a team (Chamorro-Premuzic & Sanger, 2016; Den Hartog & Dickson, 2012). In addition, being expressive of one’s emotions is acceptable and may even be considered important in Latin and Mediterranean cultures, while this is not the case for Asian cultures where being emotional may be taken as a lack of self-control, or a sign of weakness (Den Hartog & Dickson, 2012). Being an effective and clear communicator is found to be closely associated with the other leadership attributes identified in this review as it helps to successfully establish a shared vision (Farmer et al., 1998) and build partnerships by gaining mutual respect and trust among the team members (OECD, 2006).

Finally, successful *partnership building* begins with seeking areas of agreement rather than focusing on issues that create polarization within the group (Gordon & Berry, 2006). This implies a clear

purpose - the cornerstone of establishing a shared vision – and why particular actions have to be taken (Black, 2015). Priorities for environmental protection and management might differ, depending on the culture or country. For instance, while environmental activities in Germany may currently focus on creating alternative transportation, water conservation is a priority in the United Arab Emirates, species reintroduction in Mauritius, and water allocation to Montenegro and Albania (Bruyere, personal comments). Understanding differences of conservation priorities may be useful when aiming for partnerships and synergies in conservation efforts cross-culturally.

Recommendations for conservation leadership training

Based on the insights from our review, we propose that conservation leadership needs to focus on the following aspects:

1. Exploring the explicit relationship between conservation leadership attributes and cultural context, as this can help to understand the effectiveness of conservation actions.
2. Identifying the drivers of values, motivation, communication styles and group dynamics when working in a particular country, region or with a specific group of people.
3. Providing conservation leadership training and education that includes cultural awareness and opportunities to learn in situ.

Given the large mismatch between where conservation research is carried out and where it is most required (Wilson et al., 2016), we believe it could be beneficial for conservation leaders to account for cultural differences when designing and implementing conservation projects, particularly for developed versus developing countries (e.g., Aycan, 2002; Den Hartog & Dickson, 2012). Currently, many formal conservation leadership training programs, despite having international participation, are Western-led, held in the United States and Europe (Corrigan, 2014). Although some programs offer scholarships to students from developing countries, we believe that there is a need for leadership programs to ensure the integration of cross-cultural leadership skills, for example, with a local focus. We believe that conservation leadership concepts and theories developed in certain parts of the world

need to account for different cultures and adjusted according to where they may be applied (Boyacigiller & Adler, 1991). This means, more programs need to be based in developing countries, to make the training of future conservation leaders relevant to their cultural contexts as well as to make this training accessible to local conservation scientists and leaders from these areas.

Furthermore, we suggest that future research focuses on three important factors relating to conservation leadership attributes that, to our knowledge, have not been previously discussed. Firstly, the fact that, as is the case in business or economic leadership, some cultures are less accepting of women in environmental leadership roles than others (e.g., Kiamba, 2008; Tran & Walter, 2014). Secondly, how our relationship with the non-human natural world (i.e. the idea that nature can be controlled vs. thinking that humanity is part of nature) may also influence cultural attitudes towards nature and subsequently leadership behavior (Kluckhohn & Strodtbeck, 1961; Watson, 2014). Lastly, the need for greater elaboration of biodiversity programs carried out within indigenous cultures. Although programs exist that recognize the benefits of including values and knowledge of indigenous people in conservation programs (Saenmi & Tillman, 2006; Langton et al., 2014), this is a critical aspect of maintaining natural and cultural diversity.

We therefore urgently recommend that, in order to improve conservation leadership, especially in multi-national and cross-institutional project contexts, future research should encompass these three areas.

Conclusion

The complexity of environmental management requires a diversity of solutions (Gordon & Berry, 2006). Conservation science needs to be representative of our diverse global society (Hughes & Smith, 2016), and embracing the cultural context within the practice of conservation leadership can only lead to ecological and social gains. Although conservation and environmental leadership training is a growing area of conservation science (Dietz et al., 2004), our review shows that the influence of

culture on this type of leadership is underrepresented in the literature. Given the significance of the cultural dimension in leadership (Den Hartog & Dickson, 2012), it appears similarly important that training programs in conservation leadership and conservation science acknowledge, promote and use cultural diversity to inform effective leadership practices (Foster et al., 2011). An awareness of cultural differences between groups can trigger inspiration and understanding between the members of the group (Beer, 2012), and understanding these differences will be essential to effectively lead conservation projects to obtain the best outcomes.

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Figure legend

Figure A1: Frequency with which twenty different leadership attributes were addressed in the surveyed conservation literature (all except ‘communication’ were mentioned by Bruyere, 2015).

