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Living Institutions: Sharing and Sanctioning Water among Pastoralists in Namibia

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Summary. — Sanctions are often considered an important component of successful resource management. To govern water usage, pastoral communities in Namibia have specific sanctions at their disposal and yet these are almost never applied. Interestingly, this does not lead to a breakdown in water supply. To understand collective action in small communities it is important to take into account that people share multiple resources. Combining ethnography and network analysis we reveal that people cannot separate the sharing of water from the sharing of ancestries, food, and work. This discourages the application of formal sanctions while opening other means of maintaining institutional regimes.
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1. INTRODUCTION

Alfons is a respected, elderly man who owns more cattle than anyone else in Elandsput, a pastoral community in north-western Namibia.[1] One day, when we[2] passed through the community and stopped at Justus's house, he – the chairperson of the water committee – complained about his uncle Alfons. Again, his uncle had refused to pay the contributions each of them has to give to buy the diesel that is needed to pump the groundwater for their livestock. At the same time, his animals drank the largest share. We asked whether he had recently approached Alfons. He replied that he had, and that we would not believe what his uncle had told him. He said: "I never told my cattle to come to drink at that water point. How can you make me responsible for their behavior, and even ask me to pay for them?" Asked whether they had thought about applying the graduated sanctions the community had agreed upon (e.g., paying a fine) Justus replied: "No, we cannot do that." This article explores the reasons why. In doing so we examine how the sharing of water is embedded in other social forms and how this can prevent, adjust, and substitute the application of specific enforcement rules.[3]

In his classic theory of "The Tragedy of the Commons," Hardin (1968) had situations like the above in mind when he argued that the incentives for an individual to contribute to a common good are low, since s/he profits from the benefits no matter whether or not s/he contributed himself/herself. Alfons' cattle will drink, regardless of whether he contributes to the diesel fuel fund or not. And consequently, "Freedom in a commons brings ruin to all" (Hardin, 1968, p. 1244). Four decades of research have largely debunked Hardin's assumptions and have shown (1) that freedom does not necessarily lead to collapse (Moritz, Scholte, Hamilton, & Kari, 2013) and (2) that many communities have developed institutions to govern resources successfully over long periods of time (Acheson, 2011; Agrawal, 2001; Araral, 2009, 2013; Dolsak & Ostrom, 2003; Ostrom, 1990; Ostrom et al., 2002; Ratner, Meinzen-Dick, May, & Haglund, 2013; Ruttan, 2006).

In her pioneering work Elinor Ostrom identified eight principles that explain failure and success in shared resource management. And, although recent research assumes that more than eight variables are necessary for a complete explanation (Agrawal, 2002, 2003; Araral, 2009; Poteete, Janssen, & Ostrom, 2010), two of the original eight – graduated sanctioning, and monitoring (principles 4 and 5) – play a crucial role in practically all approaches (Anderies, Janssen, & Ostrom, 2004; Araral, 2011; Cox, Arnold, & Villamayor Tomás, 2010; Gibson, Williams, & Ostrom, 2005; Janssen, 2013; Janssen & Ostrom, 2014; Ostrom, Stern, & Dietz, 2003). Ostrom summarizes that institutions are sustainable if "appropriators who violate operational rules are likely to be assessed graduated sanctions" (1990, p. 90). Ostrom also points out that monitoring and sanctioning involve costs and become public goods themselves, which need to be maintained (1990, p. 43 f).

Fairly recent cross-cultural experiments have shown that people are often willing to pay these costs (Henrich et al., 2006). While some view evolutionary processes as the cause (Henrich et al., 2006), others have pointed out that sanctioning provides an information feedback loop in the social-ecological system that prevents its collapse (Anderies et al., 2004). Although sanctioning behavior is common practice, its likelihood varies between contexts and with the costs involved. The enforcement of rules is easier in groups with shared norms and a certain level of trust, while it is especially difficult in foot-loose populations; e.g., when actors have many exit options

(Araral, 2009, p. 691, 694, 695). At the same, when costs are low, sanctioning is more likely and vice versa (Anderson & Putterman, 2006, p. 11; Fehr & Fischbacher, 2004, p. 189).

In Elandsputs and other face-to-face communities in north-western Namibia, specific sanctions for breaking the rules of water management exist, yet they are almost never applied. At the same time, this does not result in a breakdown of water supply and the institutional regime. Against this background we ask: (1) Why specific sanctions are not applied, and (2) whether and how other forms of social control substitute specific sanctions to allow the governing of water usage successfully? We argue that social networks and the sharing of multiple resources, experiences, and spaces play a salient role in understanding both phenomena.

2. PASTORALISM AND SOCIAL NETWORKS

Many ethnographies have highlighted that among African pastoralists social networks play a key role in the sharing of land and water in a highly stochastic ecological environment (Behnke, Scoones, & Kerven, 1993; Bollig, 2006; Dyson-Hudson & Dyson-Hudson, 1980; McCabe, 2004). Social relations grant access to grazing and open emergency routes when the rains fail to come (Bollig, 2006; Gluckman, 1966, p. 5; McCabe, 1990, 2004; Moritz et al., 2013). While pastures were long held communally by kin-based groups, recent developments including privatization, migration, decentralization and conservation have led to more fragmented, pluralistic and conflict-laden governance regimes (Benjamin, 2008; Fratkin, 1997; Galvin, 2009; Haro, Doyo, & McPeak, 2005; Lesorogol, 2005; Schnegg, Pauli, & Greiner, 2013).

Until some 50 years ago, most pastoralists obtained water through natural springs, surface water, and hand-dug wells (Bollig, 2013; McCabe, 2004; Robinson, 2009). Again, social relationships are salient to securing access. The Nuer, for example, congregate during part of the year around dry-season homes where water is available in dried-up riverbeds. On their way to these seasonal residences, they have to move their cattle through the territories of other groups. Under these constraints, it is essentially necessary for them to maintain friendly terms with neighboring groups (Evans-Pritchard, 1940, 1951; Gluckman, 1966, pp. 5–6).

Since the middle of the 20th century, throughout Africa hundreds of boreholes have been drilled to make pastures available that were only rarely usable in the past. Permanent boreholes reduced the need for migration, and mobility decreased (Bollig, 2013; Picardi & Seifert, 1976; Sobania, 1988). In Namibia, the infrastructure to pump, store, and distribute water was maintained by the South West Africa administration under the jurisdiction of the colonial South African state. After independence, the Namibian state handed the responsibility of these boreholes over to local user association governments (Bollig & Menestrey Schwieger, 2014; Falk, Bock, & Kirk, 2009). Since then, local communities had to cover the costs of water and the administrative responsibility for its distribution. Through this process, water, like land, became a common-pool resource that had to be managed at the community level. It is subtractive (e.g., water consumed by one farmer reduces the amount of water available for others) while at the same time it is hard to exclude anyone from using it. [4] In Namibia, with the localization of water management, the role of networks changed. While social networks guaranteed access to distant resources in the past, they have now become salient for sharing a common good at home.

3. SOCIAL NETWORKS AND INSTITUTIONS

Common-pool resource theory typically considers shared norms, trust, communication, and information as beneficial for collective action (Janssen, 2013; Janssen & Ostrom, 2014; Poteete et al., 2010, p. 227). In turn, it is generally assumed that these properties go hand in hand with *small, socially dense connected groups* (Araral, 2009; Beitl, 2014; Olsson, Folke, & Berkes, 2004; Ostrom, 2005; Pretty, 2003; Pretty & Smith, 2004; Pretty & Ward, 2001).

Early on, Ostrom argued that if people interact *intensely* they can (1) control or obtain information about the actions of others and (2) are also likely to "develop strong norms of acceptable behavior and to convey their mutual expectations to one another in many reinforcing encounters" (Ostrom, 1990, p. 206). Strong norms, again, facilitate collective action as they make social behavior more predictable (Lesorogol, 2005; Moritz et al., 2013; Poteete et al., 2010). [5] In relation to information, Janssen further elaborated that the visibility of actions does not necessary lead to better performance. However, in combination with communication it does. Communication, typically more intense in small, dense, and connected networks, allows participants to make commitments to cooperation, which in turn can be monitored by gaining sufficient information on the actions of others (Janssen, 2013; Janssen & Ostrom, 2014).

Beyond social cohesion, some authors have pointed out that a certain level of leadership and heterogeneity can be beneficial, as long as the leaders are integrated into the group and trusted (Kurian & Dietz, 2013, p. 1533). Sandström and Rova (2010) found that communities which are both densely knit and centrally integrated do better in managing resources. Heterogeneity is theorized to be supportive, because it integrates different social actors and provides – in the sense of bridging social capital – linkages to different contexts and resources (Sandström & Rova, 2010).

While social cohesion and dense networks are usually regarded as supportive for institutional performance, a few studies indicate that these links may be less clear. Most importantly, Bodin and Crona (2008) find that high levels of social capital (measured by network density and connectivity, among other variables) do not always predict sustainable resource management practices. In this study, although networks were dense and connected, the willingness to report rule-breaking was low (2008, p. 2774). The authors propose that this might have to do with the social costs involved for those about to report (2008, p. 2776) and/or with norms and patterns of behavior which oppose the reporting of rule-breaking (2008, p. 2775). At the same time, they do not present qualitative data to establish this causal relationship in detail. In the same vein, Langfred (2004) and Horne (2001) show experimentally that trust induces reluctance to monitor and to sanction in highly cohesive groups.

In this article we argue that we need to understand the quality and the interpersonal dynamics of social relationships in much greater detail to grasp the complex interrelationship between sanctioning, social networks and the functioning of institutional regimes. This includes looking beyond density and cohesion of social configurations. To explore the properties of social ties we draw on the concept of *multiplexity*, developed in the 1950s by the anthropologist Max Gluckman (Gluckman, 1955, p. 19). A relationship is multiplex if it encompasses many dimensions, including economic, procreative, political, religious, and educational (Gluckman, 1955, p. 19). Gluckman argued that the diversity of relationships is