

RESEARCH ARTICLE

Fighting on Christmas: brawling as self-governance in rural Peru

Edwar E. Escalante¹ and Raymond J. March^{2*}

¹Free Market Institute, Texas Tech University, Angelo State University, San Angelo, Texas and ²Center for the Study of Public Choice and Private Enterprise, North Dakota State University, Fargo, North Dakota

*Corresponding author. Email: raymond.j.march@ndsu.edu

(Received 13 February 2019; revised 13 August 2019; accepted 14 August 2019; first published online 19 September 2019)

Abstract

This paper analyzes the Peruvian highland tradition of Takanakuy, a public brawling ritual occurring each Christmas to resolve conflicts between local community members. We argue that Takanakuy provides an effective way for locals to resolve disputes that Peru's formal judicial system is unable or unwilling to settle. Using insights from ethnographic fieldwork, journalistic articles, reports, and academic sources, we find that brawling during Takanakuy encourages social cooperation by preventing potential violence and offering community members a credible mechanism of law enforcement in an orderly fashion with social acceptance.

Keywords: Brawling; conflict resolution; self-governance; institutional analysis

1. Introduction

Each Christmas, citizens of Chumbivilcas Province in the Peruvian highlands gather to watch their contemporaries physically fight each other in their town commons.¹ This ritual is called Takanakuy, a Quechua term meaning “to hit each other.” Takanakuy typically involves dozens of consecutive brawls between parties looking to settle conflicts. Participants fight each other for a variety of reasons. Some fight to resolve grievances between friends and families, while others also brawl to resolve higher-grade disputes that emerge from violations of contracts and property-related issues (Cama, 2013; Trelles, 2010).

Although Takanakuy originates in conflict and involves significant violence, it is a highly regarded ritual that is considered a joyous occasion. Anthropologists examining the ritual find residents of Chumbivilcas Province revere this ritual as a tradition and as a means to settle unresolved conflict (Cama, 2013; Laime, 2003; Poole, 1987). The event draws a large, enthusiastic audience. Although the brawlers are on unfavorable terms, they begin and end their fight with an embrace. When the brawling ends, the entire village feasts together. Further, previous attempts to prevent brawling and suppress Takanakuy have been unsuccessful and met with considerable hostility (Laime, 2003). These factors suggest that Takanakuy plays a respected, robust, and effective role in resolving a variety of local disputes that could potentially hinder cooperation and collective action.

Although fighting seems like an impractical, even paradoxical, method to resolve conflict, informal institutions such as Takanakuy can supersede formal institutions when the latter are difficult to access or are ineffective (North, 1990; Ostrom, 1990). Informal institutions can provide effective order and governance by better utilizing local knowledge to resolve collective action problems (Ostrom, 1990,

¹Fights are also organized the day after Christmas and on other major holidays (Laime, 2003; Poole, 1994). However, the largest celebration of Takanakuy occurs at Christmas.

2005). For instance, a large body of literature emphasizes the provision of justice, security, and basic services, and alternative informal methods to resolve disputes in both historical and contemporary settings (Anderson and Hill, 2004; Benson, 1989; Friedman *et al.*, 2019; Kostelnik and Skarbek, 2013; Leeson, 2007a, 2007b, 2009a, 2013a, 2015; Skarbek, 2010; Stringham, 2002, 2015). This literature includes discussions of mitigating disputes over property use and ownership (Leeson, 2012a; Leeson and Coyne, 2012). Most of this literature emphasizes the ability of informal institutions to prevent or deter violence. However, only a small fraction of it examines the informal use of violence to effectively resolve conflict and secure social order (Friedman, 1979; Leeson, 2011).

Another literature examines the economics of dueling as a means of conflict resolution. Through historical analysis, much of this literature emphasizes the role that honor and social prestige play in incentivizing participants to duel. This historical research describes how ritualistic dueling has a rational basis (Ahn *et al.*, 2015; Allen, 2009; Allen and Reed, 2006; Kingston and Wright, 2010; Posner, 1996; Schwartz *et al.*, 1984). The literature places fighting within an equilibrium framework rather than utilizing institutional analysis to examine the social benefits or costs associated with violence.

Takanakuy's ability to resolve a variety of conflicts provides a rare opportunity to examine how a contemporary dueling ritual can achieve this end between brawling parties and reduce the social costs of enduring disputes within small communities. Because Takanakuy is both an informal institution and a ritual revolving around dueling, examining it contributes to the literatures on the informal provision of dispute resolution methods and on the economics of dueling. By examining a unique case study through the lens of institutional analysis, we contribute to the informal governance literature. We contribute to the literature on the economics of dueling by examining the broader institutional effects of dueling on local communities (rather than strictly on the duelers). Although brawling is typically an individual affair, Takanakuy's impact extends to Chumbivilcas Province more broadly.²

Building on these literatures, we argue that Takanakuy provides an effective conflict resolution mechanism specifically tailored to address local disputes within Chumbivilcas Province. By ensuring that brawling happens publicly, Takanakuy operates as a credible mechanism of law enforcement, resolves emerging conflicts between brawling parties, and reduces the risk of violence stemming from unresolved conflict. Further, resolving disputes through customary violent activity helps the citizens of Chumbivilcas Province because it creates individual and social benefits that are unlikely to arise from Peru's formal judicial system.

We rely primarily on qualitative sources for our analysis because the scarce literature examining Takanakuy is almost entirely descriptive. Our paper draws mainly on the fieldwork of several scholars who examined the ritual and its effects on local communities. We also draw on evidence from academic sources, documentaries, newspapers, and journalistic articles analyzing the festival.³ In our analysis, we portray Takanakuy participants as rational actors considering brawling as an option to solve conflicts in the context of local institutions. Within this rational-choice framework, we find that Takanakuy minimizes the costs of longstanding disputes by providing contesting parties with a mechanism to resolve disputes without resorting to mostly unavailable and less effective formal methods.

This paper proceeds as follows: the next section reviews previous literature examining informal institutions' effectiveness in resolving conflict and personal disputes. Section 3 reviews the historical development and current institutional structure of Takanakuy. Section 4 develops a game to examine the response of villagers given the option to use Takanakuy to coordinate efficient violence among its participants. Section 5 examines Takanakuy's arrangement to explain how the festival could function as an incentive-compatible means by which villagers could put an end to conflicts. Section 6 concludes.

²Previous economic literature models brawling as an investment in or signal of social capital (Posner, 1996; Schwartz *et al.*, 1984; Vahabi and Hassani-Mahmoei, 2016). Other authors use the term "honor" to represent the same concepts (Kingston and Wright, 2010). We use the term "honor" to avoid translational and cross-disciplinary jargon issues.

³We translated many of the sources into English. Most of the information examining Takanakuy is in Spanish.

2. Informal institutions, conflict resolution, and brawling

Economists have long recognized that a well-functioning judicial system is critical to securing property rights and promoting economic development (Acemoglu and Johnson, 2005; Acemoglu, Johnson, and Robinson, 2001, 2002; Easterly, 2006; Glaeser and Shleifer, 2002; Hayek, 1960; La Porta *et al.*, 2002; Smith, 1776 [2005]; Williamson and Kerekes, 2012). For Leeson and Coyne (2012), judicial services, even if informal, must be accessible, align incentives to pursue justice instead of private ends, and provide fruitful information regarding the guilt or innocence of the accused. Where these attributes are present, they make informal institutions effective mechanisms of justice provision.

Judicial systems that secure property rights are commonly thought of as formal, or centrally enforced, institutions. However, centralized institutions, including governments, sometimes fail to provide effective judicial services to mitigate conflict (Leeson, 2015). Several studies find that informal institutional mechanisms provide effective ways to adjudicate disputes when government methods fail or are unavailable. Ellickson (1991) and Anderson and Hill (2004) chronicle numerous informally developed institutions that address land disputes without appealing to formal legal institutions. Leeson (2007a; 2009b) finds that Caribbean pirates, unable to use formal institutional mechanisms to settle disputes, effectively developed constitutions to prevent predatory behavior between crew members. Skarbek (2011, 2012, 2014) finds that inmates in US prisons can resolve disputes between gang members in the absence of formal rule enforcement. Leeson (2007c) and Powell, Ford, and Nowrasteh (2008) note that clerical courts and the traditions associated with Xeer common law (Somalia's traditional legal system) provided self-governing tribes with legal counsel and functioning courts after Somalia's formal government collapsed.

Many informal mechanisms to resolve disputes involve rituals. As Leeson and Suarez (2017) note, many rituals and superstitions bolster informal institutions by coordinating around a common belief system. Leeson's extensive work on the law and economics of superstitions finds that hot and cold ordeals (2012b), oracles (2014), monastic maledictions (2012a), vermin trials (2013a), and blood feuding (2013b) provided effective judicial services for recurring social issues. While the previous literature consistently finds that informal institutions provide practical methods of resolving conflict, few of the institutions involve violence. Friedman (1979) notes that medieval Icelandic law would allow public brawling when private courts were unable to render a verdict. Leeson's (2011) work examining the tradition of trial by battle finds that dueling champions resolved complex disputes over landownership effectively in 19th-century England. A few other historical feud systems are documented in detail by Friedman, Leeson, and Skarbek (2019).

Other economists directly examine the efficiency, or inefficiency, of dueling as an atypical legal institution employed to solve conflicts (Ahn *et al.*, 2015; Allen, 2009; Posner, 1996; Schwartz *et al.*, 1984). Holland (2003) investigates the institutional evolution of dueling from medieval trial by combat to the colonial dueling system involving swords and pistols. Kingston and Wright (2010) document the emergence of dueling centered on "honor" as a social signal of creditworthiness. The duel of honor also functioned as a screen for unobservable investments in social capital (Allen, 2009; Allen and Reed, 2006; Vahabi and Hassani-Mahmooei, 2016). However, the literature does not consider whether dueling effectively resolves conflict or provides a means for broader social coordination.⁴

3. Institutional background

Historical origins

Self-governance and physical fighting are longstanding traditions in Peru.⁵ Various arrangements of self-governance to provide security, school facilities, the administration of justice, and the

⁴Vahabi and Hassani-Mahmooei (2016) model dueling as an emergent social institution from a state of anarchy. However, their formal model does not provide institutional context.

⁵For instance, De Orellana (2008) and Leon (2014) note that Takanakuy could have its origin in the rise of the Inca Empire.

administration of collective resources have been historically prevalent in the rural indigenous villages of Peru (Degregori *et al.*, 1996; Starn, 1999). The organization of public fights was mostly for entertainment during the beginning of the republic (Cama and Ttito, 2001; Laime, 2003). Cama and Ttito (2001: 154) note that landlords sometimes organized fights between slaves in rural areas. Historians generally agree that dueling to settle conflicts first emerged in Peru during the Spanish conquest in the mid-sixteenth century. During the Spanish occupation, the crown transferred previously communal lands in southern Peru from indigenous dwellers to more politically connected individuals (Poole, 1987, 1994). Leon (2014: 155) describes a prevailing story of the origin of the Takanakuy that involves families with these privileges:

During the XVIII century, two rich landlord families, Oblitas and De la Cuba had irreconcilable differences. It was a matter of domination and leadership. One day the De la Cuba family brought black slaves from Lima, under the presumption these strong men will be lethal against the Oblitas family ... when this family discovered the strategy, they did the same ... apparently, at Christmas, there was a large brawl that eliminated the Oblitas family. This fact – a mixture of myth and reality – was represented in Santo Tomas and gave birth to the date, expectation, and arrival of Takanakuy.

After Peru won its independence, more efforts to transfer properties to political authorities continued through the 19th century (Gootenberg, 2014). Similar state-led efforts continued through the 20th century. In 1969 the military regime of Juan Alvarado started an ambitious land reform program. The government reassigned ownership of significant portions of land from landowning families to deter violence between wealthy landowning families and corrupt local political figures (termed *gamonales*). Despite these efforts, insurgent violence emerged in the countryside and threatened the incipient democracy during the 1980s and 1990s (Palmer, 1994). The Peruvian government stepped in to resolve the violence in the area in 1990 when Peruvian army personnel shot and killed numerous Chumbivilcas peasants to curb civil unrest (Poole, 1994).

Research on Andean Peru's current economic and social indicators demonstrates that the region's institutional legacy from the colonial era hampered its development. Dell (2015) uses a regression discontinuity design and finds portions of southern Peru and western Bolivia are less educated, less able to transfer land, and provided with fewer public goods. This resulted from Spain's imposed forced-mining labor systems from 1573 to 1812. De Soto, Ghersi, and Gibellini (1987) and De Soto (2000) similarly find that weak enforcement of property rights in rural Peru resulted in informal mechanisms being developed to define and defend property rights.

For most of its history, southern Peru remained isolated from the Peruvian state (Poole, 1994). Although detrimental, violence historically played a critical role in maintaining and transferring property rights in the region (Poole, 1987, 1994). Consequently, the area devolved into warring factions of peasants and wealthy landowners for much of its history. Poole (1994: 97) notes Chumbivilcas region is often called *tierra brava* (brave and untamed), and natives are "considered to be independent, strong-willed, erratic, and incorrigibly unruly."

Some authors have explained that Takanakuy, like other violent rituals in the Andes, is grounded in the religious belief that the blood of fighters will bless the harvest of these mostly agricultural communities (Barrionuevo, 1971; Gorbak *et al.*, 1962; Hartmann, 1972; Hopkins, 1982). Based on ethnographic evidence, Remy (1991) criticizes this view, which gives a mystical meaning to the fighting. Instead, engaging in violence that is socially controlled through ritualistic practices protects the group from the explosive possibilities of their own violence, which is particularly important in societies that lack a legitimate administration of justice (Girard, 1972; Remy, 1991).

Although the largest and most recognized, Takanakuy is not the only violent ritual in the Andes (Arce, 2008; Calero del Mar, 2002; *El Peruano*, 2008). Each year in Cusco, a collective fight called Chiaraje occurs, in which villagers from two neighboring rural communities use their fists, stones, bolas, and slings to turn their lands into a battlefield. Like Takanakuy, the ritualistic battle is

acompanied by celebration after its completion (Arce, 2008; Frisancho and Pain, 2012).⁶ Although violent, Chiaraje and other traditional rituals remain sources of entertainment, and they are perceived as games and happy occasions for locals (Arce, 2008; *El Peruano*, 2008). Rituals using brawling for the specific purpose of resolving disputes are rarer, though they appear throughout Peruvian history in similar geographical areas. This historical use of violence and a tradition of self-governance resulted in the current use of Takanakuy to resolve disputes in the absence of formal judicial services. The brawling in Chumbivilcas is the largest and longest-lived instance of Takanakuy.

Takanakuy: the festival

The largest gathering for Takanakuy takes place on Christmas morning in Santo Tomas, the district capital of Chumbivilcas Province.⁷ All fighting in Santo Tomas occurs in the town's municipal coliseum, which usually features bullfights during the year. The arena typically hosts between 80 and 150 fights (Laime, 2003). Hundreds of villagers attend the event. Takanakuy festivals held in smaller hamlets are similarly well attended (Leon, 2014) and they usually take place in a simple ground with villagers forming a circle (*El Peruano*, 2008).

The ritual is typically organized by volunteering families called *karguyoc*, who organize a mass, arrange the logistics of the postritual feast, and raise funds as needed (Laime, 2003; Leon, 2014). Opponents most often agree to fight in advance. However, some fights emerge during the festival. Brawlers can punch and kick but are not allowed to use weapons, pull hair, bite, or strike their opponent on the ground. Each fight lasts between five and ten minutes (Trelles, 2010). Every match ends with an embrace to signal to the spectators and community that the dispute has been resolved. Brawlers, and their supporting group, typically wear masks when waiting to brawl. The masks serve to conceal their identities from others who might attack or sabotage them before the fight (Laime, 2003).

The fights are refereed and actively supervised. Each fight is policed by two or three referees, who use whips to be sure brawlers adhere to the rules. Referees are also expected to end fights if they become one-sided, and they maintain crowd control (Laime, 2003). Referees are typically local authorities whom villagers consider impartial (Enriquez, 2017). While interviewing brawlers and villagers in his research, Trelles (2010) found that most referees served as representatives or provided security services in their communities.

Although brawls and similar rituals in the Peruvian Andes that engage people in brutal combat with one another are "bloody – and even sometimes deadly – the participants view them as a means of releasing tension between community members, and through this release of tension, they achieve harmony" (Webb, 2013: 68). Laime (2003: 59) similarly notes participants "are much more satisfied with what they identify as a tradition that comes from their ancestors and that they bring to their children." We argue that this is because Takanakuy provides greater access to conflict resolution, contains unorganized violence, and provides villagers with a more robust method to prevent conflicts from affecting third parties or going unsettled.

Thus Takanakuy is ultimately a feud system established to prevent violence through broadly respected mechanisms to solve disputes. We argue that the brawling festival persists because it restricts feuding parties from engaging in socially costly violence and requires them to fight publicly in an organized setting, turning a potential social cost into a social benefit by providing a source of entertainment for locals and visitors (Huamani and Quispe, 2017; Leon, 2014; Molleapaza, 2018). To further illustrate why brawling prevails in Chumbivilcas, we develop a simple game to demonstrate each party's strategy, the resulting social cost, and the rational basis for the organization of the festival.

⁶Arce (2008) describes a nearby province's precedent called Sunqunakuy, which functioned much the same as Takanakuy but was reserved for romantic disputes.

⁷Chumbivilcas Province contains approximately 66,000 inhabitants across 77 indigenous communities and eight districts. Takanakuy occurs in each of the eight districts, but its largest gathering is in Santo Tomas, which encompasses approximately 5.5% of the region's population as of 2017. See https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1559/ (accessed 27 August 2019).

4. Fighting solves everything?

There is a rationale for organizing multiple brawlings and restraining unorganized violence in conflicts. In the absence of Takanakuy, mere private action would be the only enforcer of the community norms of behavior; in many cases, this action rests on the threat of retaliation with possible violence. Carrying out the threat of physical fighting is neither desired by two parties to a dispute nor beneficial since if the victim kills the offender (or vice versa), the offender's kin would take revenge by killing the killer. In this simple conflict, we observe a bilateral monopoly in which both sides have a motivation to solve their conflict but a disagreement over the terms. To prevent a conflict of this sort, the potential wrongdoer has to be deterred. The potential aggressor must consider that someone or something will act against those who might wrong the potential victim.

Most formal and effective systems deliver this enforcement through the state, but the villagers of the Peruvian Andes use Takanakuy instead of this unavailable option. This means that an offense against even the most impoverished victim could lead to eventual punishment. With no government to enforce the rules, the victim's threat is the private use of force, which is socially constrained by the festival's rules and rewarded by the audience with reputational gains. It is as if the victim says: "Apologize, or I will fight you at the Takanakuy."

Takanakuy operates as a commitment mechanism to prevent multiple conflicts and resolve in an orderly fashion those that emerge. A villager will retaliate against anyone who wrongs him. With no Takanakuy, that retaliation entails high risks; with Takanakuy those risks decrease, and as that villager's commitment becomes apparent, it becomes the interest of the potential offender not to wrong anybody unless he is willing to be publicly challenged at the Takanakuy. The commitment also works in a different direction. A villager who apologizes or fails to follow through on their threat to retaliate against the one who wronged him is marked as a wimp. Being considered a wimp damages their reputation, and consequently, it marks the villager as an easy target in the future.

Writing on Andean communities, Theidon (2013) points out that "restorative justice presumes the presence of a community and a relationship worthy of repair" (Tello, 2018: 71). Though two-sided conflicts should not impose significant costs on large societies, they can potentially entail retaliation, hinder cooperation, and impose high costs on close-knit societies that rely on the production, cooperation, and collective administration of their resources. Mundane acts of vengeance that could potentially occur in the absence of fighting rituals create a social cost and pose a higher risk of conflict going unresolved. Takanakuy provides a means to reduce the potential costs of violence. Laime (2003: 116) reports as the goal of the festival that "any friction ... finds a solution this day ... through fist fighting and under fair conditions. This way, with no hypocrisy, fighters eliminate tensions and initiate the next year free from resentment."

The easiest way to solve a conflict when it emerges is for one side to pay compensation or apologize to the other for the damage done; preferably, this should be done immediately. The problem is that an individual might refuse to provide compensation if he believes he is in the right; apologizing in this case would mark him as a wimp, a safe target for abuse and violence. Instead, failing to avenge wrongs on yourself has reputational costs. This creates the incentive to force the person responsible for a wrong to provide compensation in which case it will offer status gains. Though we see that a mutual apology would solve the conflict, it looks more convenient to respond to force with force and hope the opposite side will back down instead.

The role of feuding as a conflict resolution mechanism has historical precedents in different contexts, from Somali law and the legal systems of the Plains Indians in North America to England's 18th century and the saga period in Iceland (Friedman *et al.*, 2019). In general, brawling is more costly to society than an effective formal administration of justice or a mutual apology after a conflict has emerged (*ex post*). The risk of injury or death is a high potential cost that a peaceful resolution does not impose. However, we have shown that brawling is the prevalent equilibrium given the reputational gains. It is also less costly than the ineffective formal institution before the conflict emerges (*ex ante*). Villagers who rely on Takanakuy do not need to look for unbiased and omniscient judges,

establish mechanisms for enforcement, or risk their physical integrity or life, which they would if they took their fight outside the ritual. Unlike, for instance, the Finnish Roma (Leeson, 2013b), who rely on blood feuding and expect relatively few social conflicts because of the infrequency of economic relationships, Takanakuy copes with several conflicts by settling them all using one unique structure and restoring the feuding parties' relationships immediately.

5. Takanakuy as an effective conflict resolution mechanism

To test our theory that Takanakuy provides villagers with an effective means to resolve conflict, we offer and test three hypotheses.

H1: Villagers rely on Takanakuy when methods to resolve conflict through formal mechanisms are unavailable or insufficient.

Hypothesis 1 predicts that villagers will rely on Takanakuy when the government provides low-quality governance and administers justice inefficiently, and when formal institutions are perceived as corrupt or biased. Residents of Chumbivilcas Province face geographical and other difficulties accessing the formal conflict resolution procedures offered in more urban and developed regions. Poole's (1987) research shows that traveling from Santo Tomas to Cusco or to Arequipa (the closest urban areas) to access legal services requires a considerable amount of time. The trip requires taking multiple buses and riding in trucks that "make the trip, at best, once a week" (Poole, 1987: 98). There are also long waiting periods to see a judge (Djankov *et al.*, 2002), making the journey too costly for many with limited means. As a result, Cama (2013: 407) observes, "many villagers do not report infringements because of the distance between the capital and the communities." In contrast, Takanakuy is made available to all parties to resolve a variety of grievances. Participants are only required to agree to fight and to attend the festival.

Formal judicial services are also largely only accessible by men. Peruvian women have faced a long history of discrimination in the formal judicial process (Human Rights Watch, 2017). Children under 16 years old cannot utilize the court system without a legal representative (White & Case LLP, 2014). Takanakuy allows women and children to participate. Cama and Ttito (2001: 54) report, "Women fight when they see their children fighting ... they also wear masks, they also fight for romantic reasons or land disputes ... women also encourage the fighting." Regarding the fights between children, Cama (2013: 302) finds they "fight for different reasons, they have disputes in the school, or they just do not get along. When they perform well, their parents congratulate them ... parents and children are satisfied and proud; it is a way to prepare for life in the future."

Andean communities "do not completely reject the formal arrangements of the modern state, but rather practice multiple legal strategies" (Theidon, 2013: 229). They do so because many of those formal procedures do not offer satisfactory results for justice and reconciliation (Tello, 2018). Allegations of corruption have plagued Peru's judicial system: "the courts frequently reach surprising verdicts that favor apparent criminals" (Tegel, 2018: 4). Related, Burt (2009: 385) finds that "the judiciary historically has been held in low esteem by Peruvian citizens" because of various corrupting political interference. This is also the case for citizens of Chumbivilcas Province who, according to Laime (2003: 60), regard the formal judicial system as "problematic or biased in the administration of conflict resolution."

Corrupt judicial processes have impacted Chumbivilcas Providence at every level of formal administration of justice. A local villager Cama (2013: 363) interviewed notes that "sometimes authorities are corrupt, they may receive a couple of cows or lamps. The cattle rustler corrupts authorities that way. Then, what can the affected party do? He has to look for revenge." Instead of appealing to the untrustworthy judicial process or corrupt local law enforcement, villagers turn to Takanakuy (Cama, 2013). Laime (2003: 47) writes that locals

attend the festival to publicly solve inter-family and interpersonal conflicts which were caused by agricultural land disputes, cattle rustling, discussions, casual events during drunkenness during

celebrations, and another sort of abuses in the community. It is considered as a public justice administration to some degree by the locals.

Although the actual brawls are relatively short, Tello (2018: 75) notes, “the peace that emerges from the festival is long-lasting, and it is what makes life in community possible.” Whatever the injuries from the fights, individuals know they are not allowed to complain to the police or formal authorities as this is the implicit rule of the Takanakuy (Enriquez, 2017) unless those injuries result from rule violation (Laime, 2003). As Arias (2003: 100) describes in detail:

These manifestations of power [brawls] are appreciated and consented to by the locals, and it is from there that emerges an acceptance with the production of different kinds of injuries within the participants ... This is one of the reasons not to have formal reports to the judicial authorities or police. The repetitive mutism of the agents involved is the factual proof there is acceptance of the effects of Takanakuy.

A few available testimonies and surveys also provide evidence. Trelles (2010) finds that 98% of fighters declared they did not appeal to any sort of formal process after the fight (regardless of the outcome). The same survey finds that, although some participants brawl for fun, many of them brawl to resolve property-related issues, especially those related to land or cattle (Molleapaza, 2018). This acceptance extends to cases where brawling results in significant injuries. Laime (2003) and Enriquez (2017) note that participants readily accept that they are expected not to report injuries from brawling to formal authorities.⁸

Government officials in Cusco acknowledge that conflict resolution is the primary motive behind Takanakuy. In the same way, the local government of Chumbivilcas Province formally advertises the tradition: “Several district holidays present events that are typical of the area such as bullfighting and horse racing. Takanakuy takes place at Christmas; this event is traditionally organized each year. Its purpose is conflict resolution, and in some other cases people participate to show courage, bravery and physical strength ... it is an opportunity to reach prestige on these values acknowledged by society” (Laime, 2003: 105).

H2: Takanakuy will prevail as a mechanism to enforce the law if it terminates a feud, preventing violence outside the ritual and removing obstacles to social cooperation.

In resolving disputes between feuding parties, Takanakuy also reduces the risk of violence outside the ritual, which would constitute an externality on the broader community. Unresolved disputes, even low-grade ones, can have widespread disadvantages in small communities (Fukuyama, 1995; La Porta *et al.*, 1997; Putnam, 1993; *et al.*). This is especially true in communities with collective ownership of their resources (Ellickson, 1991; North, 2005; Ostrom, 1990). Typically, small homogeneous communities rely on ostracism (Greif, 1994; Leeson, 2013a) or strategies for multilateral punishment (Leeson, 2015) to provide law and order privately. The small number of members and the homogeneous composition within these communities allow the communities to identify uncooperative agents and punish them effectively. While villages in southern Peru are homogeneous on many margins, expelling members or ceasing multilateral exchange with an uncooperative villager is costly for the community, as it reduces much-needed agricultural production and labor capacity.

Ostracism or multilateral punishments could also increase the costs of administering resources through collective ownership as the tasks related to the administration may be carried out with fewer individuals. Furthermore, correctly identifying who is the aggrieved party in a petty disagreement may take too much time and effort. Though these minor grievances have the potential to hinder cooperation by exerting high social costs, severe penalties or expelling members would be a

⁸However, fights are heavily monitored by referees, and serious injuries are uncommon.

disproportionate punishment for the villagers also. Cama (2013: 400) documents an instance in which one party decided to fight outside the Takanakuy and the norms associated with the ritual:

Recently, one of the Mendoza brothers was heavily hit. They finally got their revenge. His nose got broken, and now his wife is complaining. The aggressor – who pretends to know nothing – should have fought him at the Takanakuy festival. Now he will have to pay the healing and spend a lot of time and money. If he would have hit him in the Takanakuy, everything would be fine.

Another villager commented that “if there would not be regulations [Takanakuy], as it happened on some occasions, it can end up in a general brawl all against all. The locals call it waykilla. It has resulted in deaths in previous years as a consequence of the stones thrown in different directions” (Cama, 2013: 27). Takanakuy, unlike sporadic and uncontrolled violence to exact revenge, provides a way to end conflicts by allowing parties the option to settle their differences through fighting in a structured, culturally accepted, and voluntary arrangement. Poole (1994: 118) writes, “Unlike the ritual battles performed in other regions, where distinct communities face off against each other ... the Chumbivilcano Takanakuy is strictly an individual [physical fight] and internal affair: the point being to collect revenge from individuals who have harmed you during the year.” Tello (2018: 72) notes that the ritual aims to achieve “the social containment of vengeance.”

The ritual also reduces the risk that lingering disagreements will resurface because of dissatisfaction among the feuding parties. Quoting a local, Laime (2003: 61) notes the friendliness between fighters and their former opponents: “Since the day we fought, now he respects me, now we greet each other with no problems, now he is good people, and we go along peacefully.” In contrast, efforts to prevent the ritual have resulted in prolonged conflict and more harmful violence. Laime (2003) notes an occasion when the police banned the ritual and more unsupervised fighting occurred. Locals move the fighting to the streets. The result was an increase in the number of fights, injuries, and deaths.⁹

While the ritual provides greater access for resolving conflict and effectively restricts villagers from violently resolving their disputes outside the ritual, it is still necessary to explain what motivates feuding parties to participate and what makes Takanakuy a credible mechanism to enforce the law in Chumbivilcas.

H3: If a villager has wronged another, the reputational gains from Takanakuy make it likely that the latter will carry out her threat to initiate a feud despite the risks.

The final way villagers leverage the fighting that underpins Takanakuy in order to enforce desirable conduct is through the reputational system that the festival provides. Successful fighting produces high status. On some occasions, the incentive to fight is less about solving a conflict than outdoing a fellow villager. Laime (2003) notes that local recognition results in an improved social standing with influential community figures for fighters and their families. A trustworthy reputation is, therefore, an appreciated asset and well worth defending as it increases access to positions bringing social recognition. Participants also commonly enough earn political standing to represent the peasant organizations. Within the hierarchies of the communities, those who show exceptional ability as fighters tend to become the leaders of the self-governance arrangements to provide security against rustlers, and they represent the peasant organizations.

⁹The local Catholic Church also attempted to end the ritual by organizing alternative events that took place during Takanakuy and threatened excommunication for Takanakuy’s organizers, participants, and spectators (Trelles, 2010). According to Laime (2003: 156), Father Geremias Pashbi Collins described Takanakuy as “insulting God on his birthday, and the devil’s work.” Most recently, in 2014 the Peruvian government’s television channel decided to censor a documentary on the festival after promoting it. Though the Peruvian government denied any intention of censorship, it issued a statement in which it condemned the participation of children in the Takanakuy. But according to the filmmaker of the documentary (and researchers), the adults make sure children do not harm themselves when they fight (*La Republica*, 2014).

Perhaps one of the greatest sources of prestige earned by brawlers is their designation as *qorizalos*. The term refers to the skillful and strong ranch hand, a status that “carries the potential to level and even invert the ethnic and class hierarchies that have historically characterized the province” (Huamani and Quispe, 2017: 494). Being considered a *qorilazo* allows individuals and families to increase their social status within their communities. We see “the mythical figure of the *qorilazo* survives and thrives because it serves important social ... functions” (Pettersson, 2010: 492). The rural society of Chumbivilcas has had a social class system in which access to property rights, entertainment, and artistic expression tends to belong to groups of higher status. This order still permeates the province and the fighting (Pettersson, 2010: 509).¹⁰

When resentment emerges between two parties and they agree to brawl, the brawlers also elicit support from friends and family members – friends who are skillful at fighting – to participate in subsequent fights on their behalf (Laime, 2003). The friends and family become allies. As Tello (2018: 68) notes:

The conflicts at the core of the fights often go beyond the strictly personal. Furthermore, ... both the family and the *ayllu* of the fighter experience the fight as their own. Families attend the fights and root for their own. ... When a fighter wins a battle, the victory extends to all his/her family. In the case of the *ayllu*, the winner fighter becomes the favorite son/daughter of the community and the chosen one to hold a local position since it is believed that he/she will be able to defend the *ayllu* and to maintain order.¹¹

The role of relatives and other kin to support a fighter operates as a deterrent to potential offenders. It is unlikely that a fighter whom everybody sees as being on the wrong side of the law will be able to find other villagers willing to fight on their behalf. Therefore it is possible this fighter will be challenged to fight more than once during the festival. These groups of friends and family also provide an enforcement mechanism to ensure that feuding parties do not back out of their agreements, as doing so would impose reputational costs on group members. Aviles (2015: 12) describes a common situation that many families face when a member has to brawl:

Guillermo Ayma has returned to town after ten years. His younger brother is fighting in the Takanakuy. He got a call from his brother and could not say no to his relative. This afternoon he will fight next to his brother ... Ayma traveled by bus during Christmas Eve; his brother is accused of being a womanizer. One night his three brothers in law looked for him outside a bar, they hit him. The unfaithful husband was alone and drunk. It was an unequal fight, and he demanded revenge. His in-law accepted.

Once the fighters and villagers arrive in the arena:

He calls the name of his adversary. Someone named Quispe ... Both greet each other before to fight. None of them intended to fight. One is supporting the abandoned wife, and the other supports the husband that left her. They do it because this is what family does in the Takanakuy and the rest of the world. They support each other. (*El Pais*, 2015: 12)

Less skilled fighters also have reason to participate regardless of their potential to win. Weaker fighters, who would face social repercussions for declining a challenge to brawl, often accept challenges to brawl even when their opponent may seem stronger. Although outmatched, noticeably weaker fighters secure reputational gains by fighting stronger opponents. One’s perception as being “fearless,” even

¹⁰After examining several poems, Espinoza (2015) describes the struggles of villagers in a hierarchical society in which Takanakuy becomes a means to join the local elite.

¹¹*Ayllu* is a Quechua term that refers to the social circle closer to the individual. This may include relatives and friends.

when defeated, also improves social standing and brings favorable treatment from villagers (Burga, 2014: 62). Referees can also face reputational losses for letting one-sided fights get out of hand. Thus, commitments to brawling, even when the fight is lopsided, are very likely to be fulfilled.¹² It is also possible that a strong fighter willing to violate the rights of weaker men will confront someone still more remarkable seeking to establish his own status.¹³

With poor formal mechanisms to defend and define property rights, villagers have strong incentives to obtain information about the reputational status of a fighter – to bear the high costs of seeking information from others with direct knowledge of the individual's status. Public brawling provides locals with critical information regarding how villagers honor their word and resolve conflicts. Choosing to participate or not to participate in a ritual with social significance provides valuable information for close-knit communities (Leeson, 2015; Posner, 1996). The public display in an arena during a major holiday allows this information to spread quickly to large audiences (Cama and Ttito, 2001). Takanakuy can “draw hundreds of members of the old [neighboring] families[.] [S]uddenly, the resident[s] ... are once again surrounded by men and women whom they consider their peers” (Pettersson, 2010: 476).

6. Conclusion

The public brawling ritual, Takanakuy, occurs each Christmas in Chumbivilcas Province, southern Peru. Despite consisting of violent actions between two disputing parties, the ritual plays a prominent role in the region, providing participants with an alternative method to resolve conflicts and create a peaceful society. We engaged in an institutional analysis of Takanakuy to determine whether the ritualized violence provides an effective mechanism to solve conflicts. The result is an efficient, unique method to resolve disputes in rural communities without access to (or trust in) formal conflict resolution methods and a device through which villagers can demonstrate their good faith and fair dealing.¹⁴

Although brawling to resolve conflict seems strange and ineffective, our analysis suggests otherwise. By examining the ethnographic research on Takanakuy, we find that the brawling ritual provides an accessible, valuable, and robust mechanism of conflict resolution to the citizens of Chumbivilcas Province in the Peruvian highlands. These benefits may explain the persistence of the ritual and the high respect it garners.

Formal courts and legal services to resolve disputes require considerable time and resources for many in southern Peru. In contrast, Takanakuy provides cheaper and easier access to a structured and longstanding method for two parties to settle disputes and move beyond resentment. The ritual also includes conflicts between women and between children and minor grievances regarding which the formal judicial system provides little or no assistance.

By providing an organized environment with public sanction and strict rules to avoid excessive physical harm, Takanakuy also provides a more effective means to resolve conflict than the frequently corruptible formal judicial system has addressed unsatisfactorily or simply failed to address. In general, most Peruvian citizens do not trust their court system. Chumbivilcas Province's citizens prefer their own ritual. By providing set rules and effective oversight of each brawl, Takanakuy provides a predictable way to resolve conflict. It is an effective mechanism to prevent actions from escalating in violence and uncertainty.

Lastly, we find that the way Takanakuy is organized allows it to provide reputational gains that make the threat of feud credible. Choosing to participate in a public brawl surrounded by locals

¹²Trelles (2010) finds that only 9 out of 134 brawlers were severely injured participating in Santo Tomas's 2006 Takanakuy. One of the severely injured brawlers died.

¹³Laime (2003: 103) provides a table of “outstanding” champions of Takanakuy from 1950 to 1995 across 15 districts. The list contains 53 names. Though the fights are mainly intended to resolve conflicts, the social recognition encourages fighters to use the festival as a sport and to fight more than once.

¹⁴Our findings are also consistent with Girard's (1972) argument on violence and sacrifice, where ritual battles are identified as the underlying mechanisms for limiting and controlling violence.

provides critical information regarding the individual's willingness to honor their commitments, increases their status, and contains the risks of random violence. The failure of attempts to eliminate or replace Takanakuy with other conflict resolution mechanisms or alternative forms of entertainment bolsters the claim that its supporters gain useful knowledge, social rewards, and peace from the ritual.

Our study provides valuable contributions to the economics literature examining informal institutional mechanisms to resolve disputes. Unlike much of the previous literature, which examines mechanisms designed to prevent violence, our study examines a conflict resolution mechanism that uses violence to resolve conflict. We also contribute to the economics of dueling literature by examining an atypical dueling ritual in South America and its capacity to provide social coordination. Takanakuy's uniqueness provides an opportunity to merge both bodies of literature.

Acknowledgements. We are grateful for the feedback of Glenn Furton, Michael Makovi, Alex Salter, and two anonymous referees for their excellent comments.

References

- Acemoglu, D. and S. Johnson (2005), 'Unbundling Institutions', *Journal of Political Economy*, **113**(5): 949–995.
- Acemoglu, D., S. Johnson and J. Robinson (2001), 'The Colonial Origins of Comparative Development: An Empirical Investigation', *American Economic Review*, **91**(5): 1369–1401.
- Acemoglu, D., S. Johnson and J. Robinson (2002), 'Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution', *Quarterly Journal of Economics*, **117**(4): 1231–1294.
- Ahn, T., J. Sandford and P. Shea (2015), 'Mend it, Don't End it: Optimal Mortality in Affairs of Honor', Working Paper, available at <http://paulshea.com/wp-content/uploads/2013/06/Affairs-of-Honor.pdf> (accessed 28 July 2019).
- Allen, D. W. (2009), 'A Theory of the Pre-modern British Aristocracy', *Explorations in Economic History*, **46**(3): 299–313.
- Allen, D. W. and C. G. Reed (2006), 'The Duel of Honor: Screening for Unobservable Social Capital', *American Law and Economics Review*, **8**(1): 81–115.
- Anderson, T. L. and P. J. Hill (2004), *The Not So Wild, Wild West: Property Rights on the Frontier*, Stanford, CA: Stanford Economics and Finance.
- Arce, M. (2008), 'Batallas Rituales, Juegos Rituales', *Perspectivas Latinoamericanas*, **5**: 241–257.
- Arias, G. (2003), *Poder y Violencia en los Andes: a Propósito de la Costumbre del Takanakuy en la Comunidad Campesina de Ccoyo*, CBC Colegio Andino.
- Aviles, M. (2015), 'Tortazos por Navidad', *El País*, 25 December, available at https://elpais.com/elpais/2015/12/17/eps/1450368677_181457.html (accessed 28 July 2019).
- Barriónuevo, A. (1971), 'Chiaraje', in *Allpanchis*, Cuzco, PE: Instituto de Pastoral Andino.
- Benson, B. L. (1989), 'The Spontaneous Evolution of Commercial Law', *Southern Economic Journal*, **55**(3): 644–661.
- Burga, M. (2014), *Takanakuy: Los Límites de la Cultura y lo Jurídico*, Revista de Investigación de la Universidad Norbert Wiener.
- Burt, J. (2009), 'Guilty as Charged: The Trial of Former Peruvian President Alberto Fujimori for Human Rights Violations', *International Journal of Transitional Justice*, **3**(3): 384–405.
- Calero del Mar, E. (2002), 'Dualismo Estructural Andino y Espacio Novelesco Arguediano', *Bulletin de l'Institut Français d'études Andines*, **31**(2): 153–181.
- Cama, M. (2013), *Sangre Para la Hambrienta Tierra. Resolución de Conflictos a Traves del Takanakuy en los Andes del Sur: El caso de la comunidad campesina de Ccoyo*, Departamento de Cusco-Peru, Madrid, ES: Universidad Autónoma de Madrid.
- Cama, M. and A. Ttito (2001), 'Peñas Rituales: La Waylia Takanakuy de Santo Tomas', *Anthropologica*, **17**, 151–185.
- Degregori, C. I., J. Coronel, P. Del Pino and O. Starn (1996), *Las Rondas Campesinas y la Derrota de Sendero Luminoso*, Lima, PE: IEP Ediciones.
- Dell, M. (2015), 'Trafficking Networks and the Mexican Drug War', *American Economic Review*, **105**(6): 1738–1779.
- De Orellana Sanchez, S. (2008), 'Interculturalidad Entre Culturas Asimétricas', *Revista de Arquitectura UNIFE*, **3**(1): 19–34.
- De Soto, H. (2000), *El Misterio del Capital: Por Que el Capitalism Triunfa en Occidente y Fracasa en el Resto del Mundo*, Lima, PE: Editorial La Oveja Negra.
- De Soto, H., E. Ghersi and M. Gibellini (1987), *El Otro Sendero: la Revolución Informal*, Editorial Sudamericana, Lima, PE: Instituto Libertad y Democracia.
- Djankov, S., R. La Porta, F. Lopez-de-Salines and A. Schleifer (2002), 'Courts: The Lex Mundi Project', NBER Working Paper 8890 [online] Available: www.lexmundi.com/images/lexmundi/PDF/courts_nber1.pdf?SnID=2 (accessed 28 July 2019).
- Easterly, W. (2006), *The White Man's Burden: Why the West's Efforts to Aid the Rest have Done so Much Ill and so Little Good*, New York, NY: Penguin Press.
- Elickson, R. C. (1991), *Order Without Law: How Neighbors Settle Disputes*, Cambridge, MA: Harvard University Press.

- El Peruano (2008), 'Takanakuy: Lucha Ritual', *Varietades Semanario*, Lima, PE: Diario El Peruano.
- Enriquez, U. (2017), *Concepciones de Justicia Legal*, Universidad Nacional de San Agustín de Arequipa.
- Espinoza, C. (2015), *Culpa, Tinkuy y Pachakuti En Cuatro Cantos de la Huayllá de Antabamba, Apurímac*, Universidad Nacional Mayor de San Marcos.
- Friedman, D. (1979), 'Private Creation and Enforcement of Law: A Historical Case', *Journal of Legal Studies*, **8**(2): 399–415.
- Friedman, D., P. T. Leeson and D. Skarbek (2019), *Legal Systems Very Different from Ours*, Independently Published.
- Frisancho, S. and O. Pain (2012), 'Identidad Moral y Justicia en Personas con Compromisos Sociales y Morales Extraordinarios', *Revista de Psicología*, **21**(2): 109–132.
- Fukuyama, F. (1995), *Trust: The Social Virtues and Reation of Prosperity*, New York, NY: Penguin Putnam.
- Girard, R. (1972), *Violence and the Sacred*, Paris, FR: Editions Bernard Grasset.
- Glaeser, E. L. and A. Shleifer (2002), 'Legal Origins', *Quarterly Journal of Economics*, **114**(4): 1193–1229.
- Gootenberg, P. (2014), *Between Silver and Guano: Commercial Policy and the State in Postindependence Peru*, Princeton, NJ: Princeton University Press.
- Gorbak, C., M. Lischetti and C. P. Munoz (1962), 'Batallas Rituales del Chiaraje y del Tocto de la Provincia de Kanas Cuzco', *Revista del Museo Nacional*, Tuscon, AZ: University of Arizona Press.
- Greif, A. (1994), 'Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies', *Journal of Political Economy*, **102**(5): 912–950.
- Hartmann, M. (1972), 'Otros Datos sobre las llamadas Batallas Rituales', *Actas del XXXIX Congreso Internacional de Americanistas*. Lima, Peru.
- Hayek, F. A. (1960), *The Constitution or Liberty*, Chicago, IL: University of Chicago Press.
- Holland, B. (2003), *Gentlemen's Blood: a History of Dueling from Swords at Dawn to Pistols at Dusk*, London, UK: Bloomsbury.
- Hopkins, D. (1982), 'Juego de Enemigos', *Allpanchis*, **17**(2): 167–189.
- Huamani, L. and C. L. Quispe (2017), *Potencial Turístico de la Festividades Navidena Autoctona del Distrito de Santo Tomas, Provincia de Chumbivilcas, Cusco en el 2016*, Universidad Nacional de San Agustín.
- Human Rights Watch (2017), 'World Report 2017', available at https://www.hrw.org/sites/default/files/world_report_download/wr2017-web.pdf (accessed 28 July 2019).
- Kingston, C. G. and R. Wright (2010), 'The Deadliest of Games: The Institution of Dueling', *Southern Economic Journal*, **76**(4): 1094–1106.
- Kostelnik, J. and D. Skarbek (2013), 'The Governance Institutions of a Drug Trafficking Organization', *Public Choice*, **156**(1–2): 95–103.
- Laime, V. (2003), *Takanakuy: Cuando la Sangre Hierve*, Cusco, Peru: Wilkar.
- La Porta, R., F. Lopez-de-Silanes, C. Pop-Eleches and A. Schleifer (2002), 'The Guarantees of Freedom', NBER Working Paper 8759 Available at <https://www.nber.org/papers/w8759.pdf> (accessed 28 July 2019).
- La Porta, R., F. Lopez-de-Silanes, A. Schleifer and R. W. Vishny (1997), 'Trust in Large Organizations', *American Economic Review*, **87**(2): 333–338.
- La Republica (2014), 'Rechazan la Participacion de Menores en Tradicional Festival del Takanakuy', 26 December, available at <https://larepublica.pe/sociedad/844197-rechazan-la-participacion-de-menores-en-TheDuel:CanTheseGentlementradicional-festival-del-takanakuy/> (accessed 28 July 2019).
- Leeson, P. T. (2007a), 'An-arrrh-chy: The Law and Economics of Pirate Organization', *Journal of Political Economy*, **115**(6): 1049–1094.
- Leeson, P. T. (2007b), 'Trading with Bandits', *Journal of Law and Economics*, **50**(2): 303–321.
- Leeson, P. T. (2007c), 'Better off Stateless: Somalia Before and After Government Collapse', *Journal of Comparative Economics*, **35**(4): 689–710.
- Leeson, P. T. (2009a), 'The Laws of Lawlessness', *Journal of Legal Studies*, **38**(2): 471–503.
- Leeson, P. T. (2009b), 'The Calculus of Piratical Consent: the Myth of the Myth of Social Contract', *Public Choice*, **139**(3–4): 443–459.
- Leeson, P. T. (2011), 'Trial by Battle', *Journal of Legal Studies*, **3**(1): 341–375.
- Leeson, P. T. (2012a), 'God Damn: The Law and Economics of Monastic Malediction', *Journal of Law, Economics, and Organization*, **30**(1): 193–216.
- Leeson, P. T. (2012b), 'Ordeals', *Journal of Law and Economics*, **55**(3): 691–714.
- Leeson, Peter T (2013a), 'Vermin Trials', *Journal of Law and Economics*, **56**(3): 811–836.
- Leeson, P. T. (2013b), 'Gypsy Law', *Public Choice*, **155**(3–4): 273–292.
- Leeson, P. T. (2014), 'Oracles', *Rationality and Society*, **26**(2):141–169.
- Leeson, P. T. (2015), *Anarchy Unbound: Why Self-Governance Works Better Than you Think*, Cambridge, MA: Cambridge University Press.
- Leeson, P. T. and C. J. Coyne (2012), 'Sassywood', *Journal of Comparative Economics*, **40**(4): 608–620.
- Leeson, P. T. and P. A. Suarez (2017), 'Superstition and Self-Governance', *Advances in Austrian Economics*, **19**, 57–66.
- Leon, R. (2014), *Chumbivilcas Lazos de Oro*, Lima, PE: Hudbay Per.

- Molleapaza, Y. (2018), *Impacto Social y Economico con la Implementacion de los Programas Sociales 'Pension 65' y 'Juntos' en el Distrito de Santo Tomas, Provincia de Chumbivilcas, Cusco, Anos 2012 al 2016*, Arequipa: Universidad Nacional de San Agustin.
- North, D. C. (1990), *Institutions, Institutional Change, and Economic Performance*, Cambridge, MA: Cambridge University Press.
- North, D. C. (2005), *Understanding the Process of Economic Change*, Princeton, NJ: Princeton University Press.
- Ostrom, E. (1990), *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge, MA: Cambridge University Press.
- Ostrom, E. (2005), *Understanding Institutional Diversity*, Princeton, NJ: Princeton University Press.
- Palmer, D. S. (1994), *The Shining Path of Peru*, Basingstoke, UK: Palgrave Macmillan.
- Pettersson, J. C. (2010), *All This Dies with Us: The Decline and Revision of a Mestizo Gentry (Chumbivilcas, Cuzco, Peru)*, Dissertation, San Diego, CA: University of California.
- Poole, D. A. (1987), 'Landscapes of Power in a Cattle-Rustling Culture of Southern Andean Peru', *Dialectical Anthropology*, **12**(4): 367–398.
- Poole, D. A. (1994), *Unruly Order: Violence, Power, and Cultural Identity in the High Provinces of Southern Peru*, San Francisco, CA: Westview Press.
- Posner, E. A. (1996), 'Law, Economics and Inefficient Norms', *University of Pennsylvania Law Review*, **144**(5): 1697–1744.
- Powell, B., R. Ford and A. Nowrasteh (2008), 'Somalia After State Collapse: Chaos or Improvement?', *Journal of Economic Behavior and Organization*, **67**(3–4): 657–670.
- Putnam, R. (1993), 'What Makes Democracy Work?', *National Civic Review*, **82**(2): 101–107.
- Remy, M. I. (1991), *Los Discursos Sobre la Violencia en lLos Andes. Algunas Reflexiones a Propósito del Chiaraje*, CBC Centro Bartolome de las Casas.
- Schwartz, W. F., K. Baxter and D. Ryan (1984), 'Be Acting Efficiently?' *Journal of Legal Studies*, **13**(2): 321–355.
- Skarbek, D. (2010), 'Putting the 'Con' into Constitutions: The Economics of Prison Gangs', *Journal of Law, Economics, and Organization*, **26**(2): 183–211.
- Skarbek, D. (2011), 'Governance and Prison Gangs', *American Political Science Review*, **105**(4): 702–716.
- Skarbek, D. (2012), 'Prison Gangs, Norms, and Organizations', *Journal of Economic Behavior and Organization*, **82**(1): 96–109.
- Skarbek, D. (2014), *The Social Order of the Underworld: How Prison Gangs Govern the American Penal System*, Oxford, UK: Oxford University Press.
- Smith, A. (1776 [2005]), *An Inquiry into the Nature and Causes of the Wealth of Nations*, University Park, PA: Penn State University Press.
- Starn, O. (1999), *Nightwatch: The Politics of Protest in the Andes*, Durham, NC: Duke University Press.
- Stringham, E. (2002), 'The Emergence of the London Stock Exchange as a Self-Policing Club', *Journal of Private Enterprise*, **17**(2): 1–19.
- Stringham, E. (2015), *Private Governance: Creating Order in Economic and Social Life*, Oxford, UK: Oxford University Press.
- Tegel, S. (2018), 'Corruption Scandals have Ensnared 3 Peruvian Presidents. Now the Whole Political System Could Change', *Washington Post*, 18 August, available at https://www.washingtonpost.com/?utm_term=.c9e67da43507 [accessed 28 July 2019].
- Tello, A. L. (2018), 'The Takanaky: Performing Justice and Reconciliation in Cuzco, Peru', *Enfoques*, available at http://brujula.ucdavis.edu/uploads/8/1/9/3/81930408/4_tello_ana_lucia.pdf (accessed 28 July 2019).
- Theidon, K. S. (2013), *Intimate Enemies: Violence and Reconciliation in Peru*, Philadelphia, PA: University of Pennsylvania Press.
- Trelles, E. (2010), *Muerte y Lesiones Graves Producidas por la Practica del Takanaky en el Distrito de Santo Tomas y su Tratamiento Juridico por la Justicia Penal, Durante el Periodo 2006–2007*, Arequipa: Universidad Catolica de Santa Maria.
- Vahabi, M. and Hassani-Mahmooei, B. (2016), 'The Role of Identity and Authority from Anarchy to Order: Insights from Modeling the Trajectory of Dueling in Europe', *Economic Modelling*, **55**, 57–72.
- Webb, H. S. (2013), 'Expanding Western Definitions of Shamanism: A Conversation with Stephan Beyer, Stanley Krippner and Hillary S. Webb', *Anthropology of Consciousness*, **24**(1): 57–75.
- White & Case LLP (2014), *Access to Justice for Children: Peru*, available at https://archive.crin.org/sites/default/files/peru_access_to_justice_0.pdf (accessed 28 July 2019).
- Williamson, C. R. and Kerekes, C. B. (2012), 'Securing Private Property: Formal versus Informal Institutions', *Journal of Law and Economics*, **54**(3): 537–572.