

WHO BELIEVES IN WITCHES? INSTITUTIONAL FLUX IN SIERRA LEONE

HUIB VAN DE GRIJSPAARDE, MAARTEN VOORS, ERWIN BULTE, AND
PAUL RICHARDS*

ABSTRACT

Witchcraft has been documented across the globe. The widespread occurrence of such beliefs in modern Africa affects politics, economic development, and poverty alleviation. Anthropologists have analysed the semiotics of African witchcraft, but there is less information on distributional issues. An important question is which communities are most affected, and why? Using data from a survey of 182 villages and 2,443 household heads in the Gola Forest region of eastern Sierra Leone, we examine three manifestations of witchcraft – concerns, conflicts, and detection. We find that where patrimonial relations of agrarian production remain strong, and in settings where market forces are now well established, witchcraft is less of a concern. By contrast, witchcraft manifestations are higher in communities experiencing the competing pull of patrimonial and market norms. Witchcraft, we conclude, is a product of normative ambiguity.

WITCHES HAVE MANY HIDING PLACES. Ronald Hutton found documentation of occult theories of malevolent harm in all parts of the globe with the exception of Siberia.¹ Concern with witchcraft was a major aspect of

*Huib van de Grijspaarde (huib@koneksie.com) is with the Development Economics Group, Wageningen University; Maarten Voors (mjb32@cam.ac.uk) is with the Department of Land Economy, University of Cambridge; Erwin Bulte (erwin.bulte@wur.nl) is with the Development Economics Group, Wageningen University and the Department of Economics, Tilburg University; Paul Richards (paul.richards@wur.nl, corresponding author) is with the School of Environmental Sciences, Njala University, Sierra Leone. We are indebted to the UK's Royal Society for the Protection of Birds (RSPB), the Gola Forest Programme (supported by the European Union, Fonds Française pour l'Environnement Mondial and the Global Conservation Fund at Conservation International), BirdLife International, Esther Mokuwa (Njala University), Koen Leuvelde (Wageningen University), Dr Andreas Kontoleon (University of Cambridge) and Ty Turley (University of Chicago) for their collaboration in this project. We thank N.W.O. 452-04-333 for financial support. We acknowledge the loyalty and hard work of the team of field enumerators and the patience and cooperation of interviewees. The referees and editors are thanked for their very helpful interventions.

1. Ronald Hutton, 'Anthropological and historical approaches to witchcraft: potential for a new collaboration', *The Historical Journal* 47, 2 (2004), pp. 413–34. Examining literature from 1890 to 2002, Hutton found five universal aspects of witchcraft beliefs: a witch causes harm through non-physical means; is intimate with the victim; is socially disapproved; works

societal transitions associated with the rise of capitalism in early-modern Europe. Beliefs in witches were also widespread in colonial Africa.² The epidemiology of African witchcraft was once linked to the cohesion of tribal society, but sophisticated theories of societal imagination have been developed to account for newer, urbanized forms of African witch belief.³ Witch beliefs can lead to public disorder, and thus have implications for social policy, security, and poverty alleviation.⁴ What is lacking is reliable evidence of distributional features, and theory predicting when or where harmful episodes of witch finding might occur.⁵ The anthropologist Max Marwick was an early advocate of quantification,⁶ but, more typically, anthropologists accepted the argument of Michael Herzfeld that priority should be given to the semiotic properties of occult beliefs.⁷

Progress on the semiotics of witchcraft has been impressive.⁸ It might now be timely to reconsider quantitative options.⁹ In doing so, we bear in mind Herzfeld's warning that high levels of cross-cultural variation would invalidate quantitative analysis. The anthropologist Michael Jackson notes that the category 'witch' only takes on definite meaning within a specific

within a tradition; and can be defeated if special measures are taken. This list is perhaps best taken as a warning not to open the comparative net too wide (see footnote 10).

2. Siegfried Nadel, 'Witchcraft in four African societies: an essay in comparison', *American Anthropologist* 54, 1 (1952), pp. 18–29; Max Marwick, *Sorcery in Its Social Setting: A study of the Northern Rhodesian Cewa* (Manchester University Press, Manchester, 1965); Mary Douglas, *The Lele of the Kasai* (Oxford University Press for the International African Institute, London, 1964).

3. See, for example Peter Geschiere, *The Modernity of Witchcraft: Politics and the occult in postcolonial Africa* (University of Virginia Press, Charlottesville, VA, 1997).

4. See, for example, Catherine Dolan, 'Gender and witchcraft in agrarian transition: the case of Kenyan horticulture', *Development and Change* 33, 4 (2002), pp. 659–81; Cyprian Fisiy and Peter Geschiere, 'Witchcraft, development and paranoia in Cameroon' in Henrietta Moore and Todd Sanders (eds), *Magical Interpretations, Material Realities: Modernity, witchcraft and the occult in postcolonial Africa* (Routledge, London and New York, NY, 2001), pp. 226–46; Barbara Frank, 'Permitted and prohibited wealth: commodity-possessing spirits, economic morals, and the Goddess Mami Wata in West Africa', *Ethnology* 34, 4 (1995), pp. 331–46; and Frederick Golooba-Mutebi, 'Witchcraft, social cohesion and participation in a South African village', *Development and Change* 36, 5 (2005), pp. 937–58.

5. But see Mary Douglas, 'Sorcery accusations unleashed: the Lele revisited', *Africa* 69, 2 (1999), pp. 177–93; and Maia Green, 'Witchcraft suppression practices and movements', *Comparative Studies in Society and History* 39, 2 (1997), pp. 319–45.

6. Max Marwick, 'Anthropologists' declining productivity in the sociology of witchcraft', *American Anthropologist* 74, 3 (1972), pp. 378–85.

7. Michael Herzfeld, 'A semiotic approach to evil eye accusations in a Greek village', *American Ethnologist* 8, 3 (1981), pp. 560–74.

8. Jean and John Comaroff (eds), *Modernity and Its Malcontents: Ritual and power in post-colonial Africa* (University of Chicago Press, Chicago, IL, 1993); and 'Occult economies and the violence of abstraction, notes from the South African post-colony', *American Ethnologist* 26, 2 (1999), pp. 279–303; Harri Englund, 'Witchcraft and the limits of mass mediation in Malawi', *Journal of the Royal Anthropological Institute* 13, 2 (2007), pp. 295–311.

9. Hutton, 'Anthropological and historical approaches'.

context of localized practices of daily life.¹⁰ Our data are accordingly limited to a single region – villages recovering from armed conflict on the margins of the Gola Forest in eastern Sierra Leone. In addition to ideas about witches, communities in these seven chiefdoms also share forest-edge livelihoods, the Mende language, and a Gola cultural and institutional background.¹¹ We consider three dependent variables – perceived fear of witchcraft, involvement in witchcraft accusation, and activity of witch finders. We then test for the influence of a range of independent variables. Witchcraft beliefs can be explained by institutional flux. We find that where patrimonial relations of agrarian production remain strong, and in settings where market forces are now well established, witchcraft is less of a concern. By contrast, witchcraft manifestations are higher in communities experiencing the competing pull of patrimonial and market norms. Witchcraft, we conclude, is a product of normative ambiguity. Civil war, seemingly, has little explanatory relevance.

Witchcraft studies in anthropology, history, and economics

There is a universal human tendency to personalize misfortune. We know bad things happen, but still we want to know ‘Why me?’. We then fit our own case into a pattern of cases by ostension (pointing at something general by identifying specific examples). This results, typically, in a theory of insidious harm.¹² The purported forces will vary according to context. Sometimes suspicion turns upon a machine (maybe mobile phones cause cancer?). At other times the problem lies with authority (the government has a fleet of unmarked helicopters, and is out to get us). Very often (especially in societies with low reliance on machines) insidious harm is encountered in the outworking of anti-social forces among those upon whom we rely most. In peasant society the malice of family members or neighbours is often the domain of the witch.

Ostensive theories can have important economic and social consequences. Their inductive (and circumstantial) nature, however, makes them hard for social science to explain. The dissection of the witch was

10. See Michael Jackson, ‘The witch as a category and a person’ in Michael Jackson (ed.), *Paths towards a Clearing: Radical empiricism and ethnographic enquiry* (Indiana University Press, Bloomington, IN, 1989). As Jackson puts it, the important issue is not the category itself, but ‘what [the words ‘witch’ and ‘witchcraft’] are made to mean in the contexts of everyday life’ (p. 93).

11. The word ‘institution’ refers to the shared (and often tacit) rules and understandings through which collective action is ordered. See Mary Douglas, *How Institutions Think* (Routledge, London, 1986). The specific institutions commented upon include rotational farm labour clubs, bridewealth marriage, market trading activity, and gerontocracy (rule by elders). At times these institutions are referred to collectively as local value systems.

12. Mary Douglas, ‘Witchcraft and leprosy: two strategies for rejection’ in Mary Douglas, *Risk and Blame: Essays in cultural theory* (Routledge, London, 1992), pp. 83–101.

once a speciality of anthropologists, guided by a notable study of the Azande of southern Sudan by Edward Evans-Pritchard.¹³ Azande beliefs about witches, it was argued, served to preserve order and accountability among peasants in courts presided over by a ruling class who could not themselves be accused of witchcraft. The system was sustained by the possibility of detecting witches through a poison ordeal. To address colonial squeamishness, the Azande abandoned direct application of the ordeal to humans, and used it on chickens instead. Whether chickens lived or died, as probing questions were put, served to detect the witch.

Initially, anthropological theories of witchcraft rested on acceptance of social wholes. In an era in which Africa was seen as divided into tribes, witchcraft was seen as a means of ensuring accountability to the group. Anthropologists regarded witchcraft as an important emic element in explaining how tribes stayed together,¹⁴ or in some cases split apart.¹⁵ The group was strengthened, at the expense of those stigmatized and punished. But if witchcraft was part of the rural order it was presumed likely to disappear under post-colonial urbanization. Scholarly interest declined. Anthropologists only came back to the topic after it was discovered that witchcraft is, in fact, as strongly associated with city life as with life in the countryside.¹⁶

They were helped in this revised understanding by contributions from historians, some overtly inspired by anthropology.¹⁷ The historians often worked on European society, which usefully established that witchcraft had no special association with Africa. Nor were historians lumbered with ideas of rural monads. As they saw it, witch beliefs came and went in response to changing configurations of social and economic forces. For example, evil spirits were on the loose in late Roman times, as central authority weakened, and intellectuals who once served to reinforce the state now identified with new forces from below, especially Christianity.¹⁸ The doctors of the church specialized in protecting against misfortune by casting out demons. A later, more stable feudal order dampened 'witch finding', but accusations and executions rose again amidst religious and

13. Edward Evans-Pritchard, *Witchcraft, Oracles and Magic among the Azande* (Clarendon Press, Oxford, 1937).

14. An 'emic' distinction is one perceived by members of a cultural community, as distinct from an 'etic' distinction – one based on external observational criteria.

15. J. Clyde Mitchell, *The Yao Village* (Manchester University Press, Manchester, 1956); Victor Turner, 'Witchcraft and sorcery: taxonomy versus dynamics', *Africa* 34, 4 (1964), pp. 314–25.

16. Geschiere, *The Modernity of Witchcraft*.

17. Notably, Keith Thomas, 'The relevance of social anthropology to the historical study of English witchcraft' in Mary Douglas (ed.), *Witchcraft Confessions and Accusations* (Routledge, London, 1970), pp. 47–79.

18. Peter Brown, 'Sorcery, demons and the rise of Christianity from late antiquity into the middle ages' in Douglas, *Witchcraft Confessions and Accusations*, pp. 17–45.

economic turmoil in the sixteenth century.¹⁹ By the onset of the industrial revolution witches had once more disappeared, only to revive in the post-industrial age in, for instance, fears of Satanic child abuse fanned by Pentecostalism and popular media.²⁰

How were such fluctuations to be explained? Broad exogenous factors, such as the impact of the Reformation, or the climatic deterioration of the Little Ice Age, attracted attention. Disordered and dysfunctional polities were also offered as hypotheses. Alfred Soman commented that ‘prolonged witch hunting is as good a barometer as any for measuring weakness in a state’.²¹ Others, however, took a more fine-grained approach. Historian and anthropologist Alan Macfarlane analysed patterns of accusation in three manors in the County of Essex (in eastern England) and found that under a single climatic and religious dispensation witchcraft displayed considerable local variation.²² Accuser and accused came from different sides of an emerging institutional divide. The accuser might be a somewhat more prosperous peasant, benefiting from the market economy. The accused might be representative of the cooperative village economy (typically an older women, assiduous in church attendance and active in fulfilling neighbourly duties). Macfarlane hypothesized that witch accusations arose from an uneasy conscience. Pastors repeatedly warned of evils likely to befall those who broke the norms of cooperative village life. Peasants with one foot in the market half expected something bad to happen. Maybe the farmer then fell ill, or the best cow died. Could it be that the good-hearted woman was too intrusive in her neighbourly duties? Did she remind the victim of misfortune that greed came before a fall? The woman’s goodness was now a cause for suspicion. A witch might be excessively faithful in church attendance, because the devil’s servants need to study their enemy at close quarters. Specious legal arguments were built from such perverse reasoning in courts where even educated judges believed in witches. Macfarlane’s explanation is that, in effect, witchcraft accusation reflected a morally troublesome flux between communal and market values.

More recently, economists have joined anthropologists and historians in paying attention to the witch. Two notable papers address the challenge

19. Hugh Trevor-Roper, ‘The European witch craze of the sixteenth and seventeenth centuries’ in Hugh Trevor-Roper (ed.), *The Crisis of the Seventeenth Century: Religion, the Reformation and social change, and other essays* (Harper and Row, New York, NY, 1967), pp. 83–172.

20. Jean La Fontaine, *Speak of the Devil: Tales of satanic abuse in contemporary England* (Cambridge University Press, Cambridge, 1998).

21. Alfred Soman, ‘Decriminalizing witchcraft: does the French experience furnish a European model?’, *Criminal Justice History* 10 (1989), pp. 1–22, p. 17.

22. Alan Macfarlane, ‘Witchcraft in Tudor and Stuart Essex’ in Mary Douglas (ed.), *Witchcraft Confessions and Accusations* (Routledge, London, 1970), pp. 81–99.

to apply quantitative tools. Both focus on high-level exogenous causes. Edward Miguel analyses data from Tanzania, and finds robust statistical associations between witch murders among the Sukuma and income shocks triggered by climatic variations.²³ Emily Oster focuses on witch-finding episodes in sixteenth- and seventeenth-century Europe.²⁴ After offering documentary evidence of the widespread belief that witches controlled the weather, she tests whether witch hunting can be linked to poor harvests resulting from adverse climatic events. Other economists have pursued the micro-level institutional approach exemplified by Macfarlane. For instance, Noel Johnson and Mark Koyama have used witchcraft trials as a proxy for legal decentralization, in order to explore an association between fiscal and legal fragmentation in early modern France.²⁵

In this article we develop an analytical perspective informed by anthropological, historical, and economic literature, and pursue a micro-analytical path. We do not argue for this micro-level approach to the exclusion of other levels of analysis. Micro and macro approaches generate complementary hypotheses. First, at the aggregate level, adverse shocks may invite a search for witches, either as scapegoats or as a means to purge unproductive elements from society when competition for resources intensifies. Weather patterns and poor harvests feature prominently in this literature. Holding weather and ecological factors constant, however, throws the spotlight on clashes of institutional values. Where the impact of misfortune falls on familiar and trusted social institutions, defence involves not physical protection but the search for groups or persons to blame. This leads to two possible kinds of outcome. Jean-Philippe Platteau argues that proponents of traditional values seek to retain customary order and restrain their modernizing peers.²⁶ Alternatively, individuals torn between value systems may blame those most closely associated with one or other system for their bad fortune, as argued by Macfarlane.

Our empirical focus is on local institutional variables and witchcraft manifestations in seven chiefdoms sharing a boundary with the Gola Forest in eastern Sierra Leone. The forest ensures abundant rainfall, so

23. Edward Miguel, 'Poverty and witch killing', *Review of Economic Studies* 72, 4 (2005), pp. 1153–72. Miguel is careful only to claim that these shocks are triggers for acting upon pre-existing beliefs. See Simeon Mesaki, 'Witch-killing in Sukumaland' in Ray Abrahams (ed.), *Witchcraft in Contemporary Tanzania* (African Studies Centre, Cambridge University, Cambridge, 1994), pp. 47–60.

24. Emily Oster, 'Witchcraft, weather and economic growth in Renaissance Europe', *Journal of Economic Perspectives* 18, 1 (2004), pp. 215–28.

25. Noel Johnson and Mark Koyama, 'Taxes, lawyers, and the decline of witch trials in France' (MPRA Paper No. 34266, University of Munich, 2011).

26. Jean Philippe Platteau, *Institutions, Social Norms, and Economic Development* (Routledge, London, 2000).

there is only limited variation in climatic risks to farming. Mende is the lingua franca in all communities surveyed, but the seven chiefdoms are distinct within the wider Mende-speaking region of eastern and southern Sierra Leone in sharing a Gola ethnic background. Warlords from the north imposed themselves on Gola-speaking forest-edge communities in the nineteenth century, and this is today reflected in the fact that ruling lineages trace their origins to the Mende district of Kailahun to the north of the forest. Modes of governance (chieftaincy and courts) derive from pre-colonial practices standardized under British colonial rule.²⁷ This served to merge the specific features of the seven forest-edge chiefdoms – notably their shared Gola cultural background – into a broader pan-Mende identity, since British rule, in effect, reified the idea that an arbitrarily imposed international boundary reflected a real ethnic difference (between Mende living in Sierra Leone and Gola living in Liberia).

The local reality today is that cross-border linkages remain important among all forest-edge communities of Gola origin, despite the lack of public recognition of Gola identity in Sierra Leone. The shared cultural heritage of the seven chiefdoms is apparent from a careful reading of the ethnographic literature on both the Mende and the Gola.²⁸ In confining our sampling to this distinctive cultural region we believe we have controlled for the high levels of cross-cultural variation that Herzfeld suggested might otherwise invalidate quantitative assessment of witchcraft responses.

Witchcraft around the Gola Forest

Communities around the Gola Forest share a stock of ideas about occult forces, conceived as perversions of two key ‘forest’ social institutions – the bilateral kinship group (the conical clan),²⁹ and the male and female power associations, Poro (Mende: *Pɔɔ*), and Sande.³⁰ Conical clans permit the orderly transfer of land across generations and the incorporation of strangers into the farming group. These power associations preserve or adjust hierarchical relations between chiefs and commoners;

27. Local courts administering customary law and paramount chieftaincy were revived with British aid assistance after the recent civil war (1991–2002).

28. See, for example, Warren d’Azevedo, ‘Common principles of variant kinship structures among the Gola of western Liberia’, *American Anthropologist* 64, 3 (1962), pp. 504–20; and Kenneth Little, ‘The political function of the Poro’, Parts 1 and 2, *Africa* 35, 4 (1965), pp. 349–65 and 36, 1 (1966), pp. 69–71. For a nuanced account of the place of witchcraft beliefs in the context of daily life in a Mende village see Mariane Ferme, *The Underneath of Things: Violence, history and the everyday in Sierra Leone* (University of California Press, Berkeley, CA, 2002).

29. On conical clans see d’Azevedo, ‘Common principles’.

30. On power associations see Little, ‘The political function of the Poro’.

defining characteristics are membership through initiation and the social disciplines of secrecy – hence their alternative name, ‘secret society’.

A central concept underpinning local witch beliefs is that of *hale*.³¹ *Hale* means ‘medicine’, but is also ‘an object employed to secure certain ends by supernatural means’.³² Significantly, the word can also signify ‘society, secret society’. It might equally well be translated as ‘spirit power’, especially the spirit powers underpinning Poro and Sande.³³ A principal purpose in joining such a society is to obtain *hale*. *Hale*, in effect, energizes society. Access involves initiation into knowledge concerning the correct mode of addressing sources of power. Initiation invariably also involves payment of fees. People are said (in Mende) to ‘die on medicine’ – in other words, they will sacrifice time, wealth, or autonomy to obtain relevant powers.³⁴

There are also powers not properly within the scope or control of recognized societies. Dangerous discoveries are made in the vastness of the forest, and some persons are imbued with, or can conspire to tap, anti-social sources of occult energy (*hale nyamungɔ* – ‘bad medicine’). The Mende language has terms for two main forms of anti-social power – *bɔni* and *hɔna*.³⁵ The practices associated with *bɔni* and *hɔna* are rendered (in English) as ‘cannibalism’ and ‘witchcraft’. *Bɔni* is better translated as ‘medicine murder’, since its manufacture demands murder (often of a child) to obtain ‘fat’ to energize a form of ‘bad medicine’ known as *bɔfima*, thought to confer wealth and power on members of the association (the *bɔnibla*).³⁶ Presumed to be organized as a secret cult, the *bɔnibla* seize victims when disguised as one of three forest animals – leopard, ‘alligator’,³⁷ and chimpanzee.³⁸ Abductions take place in broad daylight, when

31. *Hale* is Mende. The Gola word is *egol*. See Diedrich Westermann, *Die Gola-Sprache in Liberia* (L. Friederichsen and Co., Hamburg, 1921).

32. Gordon Innes, *Mende-English Dictionary* (Cambridge University Press, Cambridge, 1969).

33. This is the option taken by Anthony Gittins, *Mende Religion: Aspects of belief and thought in Sierra Leone* (Steyler Verlag - Wort und Werk, Redaktion Anthropos, D-5205 Sankt Augustin, 1987).

34. Charles Jedrej, ‘Medicine, fetish and secret society in a West African culture’, *Africa* 46, 3 (1976), pp. 46–56.

35. Mende terms are given in the indefinite singular form. Gittins, *Mende Religion*, uses definite forms (*hɔnei*).

36. Little, ‘The political function of the Poro’, pp. 233–4. See also Rosalind Shaw, ‘Cannibal transformations: colonialism and commodification in the Sierra Leone hinterland’ in Moore and Sanders (eds), *Magical Interpretations*, pp. 50–70.

37. The term crops up in colonial records, but the animal is actually the Nile crocodile, since there are no alligators in West Africa. Some informants refer not to an animal but to a submersible canoe.

38. Paul Richards, ‘Chimpanzees as political animals in Sierra Leone’ in John Knight (ed.), *Natural Enemies: People-wildlife conflicts in anthropological perspective* (Routledge, London, 2000), pp. 78–193. In northern Sierra Leone local ideas about shape shifting also extend on occasion to the elephant (see Michael Jackson, ‘The man who could turn into an elephant’, in Jackson, *Paths Towards a Clearing*, pp. 59–78. Melissa Leach links ideas about shape shifting to militia civil defence in armed conflict in Sierra Leone and Guinea: see

children are running errands between village and farm. The colonial government in Sierra Leone banned the leopard and ‘alligator’ societies in 1911.³⁹ Those accused of participation were tried, and imprisoned or executed. Later cases were dismissed because of doubts about confessions extracted after lengthy periods of imprisonment and ill-treatment. It was also recognized that forensic evidence was complicated by real animal attacks.⁴⁰ For groups around the Gola Forest, *bɔni* is a perversion of the leadership found in power associations. The *bɔmbila* are seen as ‘big people’ who turn on their subjects to boost waning chiefly powers. The arrow of blame points upwards.⁴¹

By contrast, witches (*hɔna bla*) belong to the ordinary people – the peasant classes – and they may not even know the damage their powers can cause. The arrow of blame points laterally, towards peers, or perhaps downwards towards serfs and clients. The ‘witch power’ is presumed to reside in the stomach. Some people are born with it. Others inherit it from their parents, or acquire it through being initiated into a craft. The witch spirit works at night, even as the owner sleeps. Witches are discovered by diviners (witch finder, *kema mɔi*). Revealed as a witch, a person may choose to face up to a hitherto unsuspected condition, since therapy and reintegration are generally available to those who confess.⁴² If *bɔni* gives imaginative form to fears concerning the failure of leadership, *hɔna* addresses concerns over perceived weaknesses in the working of clanship. Anthony Gittins characterizes Mende witchcraft ‘simply as the antithesis of the institutionalization of [*hale*]’.⁴³

Our original aim was to explore both *bɔni* and *hɔna*. However, the former clusters around elections and succession disputes,⁴⁴ of which there were relatively few in the survey year (2010). Accusations of the second type were more common and widespread. It therefore seemed most feasible to explore the co-variance of a range of socio-economic factors with the distribution of cases of *hɔna*. Our interviews asked about beliefs in *hɔna* (whether people found it a problem), but we also sought behavioural evidence. Interviewees were asked to recall actual cases of *hɔna* in their

‘New shapes to shift: war, parks and the hunting person in modern West Africa’, *Journal of the Royal Anthropological Institute* 6, 4, pp. 577–96.

39. Kenneth James Beatty, *Human Leopards: An account of the trials of human leopards before the special commission court, with a note on Sierra Leone, past and present* (Hugh Rees Ltd, London, 1915).

40. Migeod, *A View*, pp. 162–73.

41. Douglas, ‘Witchcraft and leprosy’.

42. Gittins, *Mende Religion*, pp. 183–202.

43. *Ibid.*, p. 156.

44. This observation is made for the activities of ‘cannibals’ (known as ‘heart men’) in Liberia by Mary Moran, *Liberia: The violence of democracy* (University of Pennsylvania Press, Philadelphia, PA, 2006), p. 107.

village over ten years. They were also asked to provide information on what these cases were about, who was involved, and what settlement procedures were used (the services of a witch finder, for example). Information on independent variables was compiled from baseline data relating to villages and households. We were then able to calibrate a number of models linking witchcraft accusations and institutional variables.

Rice farming and farm labour

The organization of farming on swamps and uplands is important in the analysis we undertake below, so a brief introduction is needed.⁴⁵ A typical rural household in a Gola Forest village secures its subsistence from an upland rice farm. Forest or bush is cleared, farmed for a year or two, and left to fallow for a period of up to a decade or more. Rainfall has a single seasonal peak (from May to October). Rice is planted in the rains, and depending on the variety chosen, takes 3–5 months to mature. Clearing and planting is thus constrained by the onset and end of the rains. Timely farming operations lead to higher yields. Rice is also grown on swamps. Swamp rice is less time-constrained but less favoured for consumption. The crop is often sold. Women and young men are the main cultivators of swamp rice. Many (male) household heads also invest in small cocoa and coffee plantations. They frequently hire labour to help with the task.

The heavy work of clearing and planting upland farms is sometimes undertaken by rotational labour-sharing groups. Labour is supplemented by young men performing bride service or working off fines levied by local courts for torts such as adultery ('woman damage').⁴⁶ Once the upland farm is planted the work of maintaining it falls to household members (and in particular the wife or wives of the head of household). Labour is hired for work in swamps and plantations. Witchcraft is significantly associated with these agrarian variables. In particular, high involvement in labour groups and increased swamp farming (up to a certain point) are associated with greater likelihood of witchcraft, whereas there is no significant association with tree crop planting.

Sizing up witches: our data collection strategy

Data for the study were gathered in 2010, in collaboration with the Gola Forest Programme (GFP), the University of Cambridge, and the

45. For further detail see Paul Richards, *Coping with Hunger: Hazard and experiment in an African rice-farming system* (Allen and Unwin, London, 1986).

46. Esther Mokuwa, Maarten Voors, Erwin Bulte, and Paul Richards, 'Peasant grievance and insurgency in Sierra Leone: judicial serfdom as a driver of conflict', *African Affairs* 110, 440 (2011), pp. 339–66.

University of Chicago.⁴⁷ The GFP selected 182 forest-edge villages based on the potential to contribute to the conservation of biodiversity, spread across the seven chiefdoms bounding the forest (Barri, Gaura, Koya, Makpele, Malema, Nomo, Tunkia). We undertook surveys in each of the sample villages at both the household and the community level. At household level we randomly selected 15 households per village (or less in smaller villages) and interviewed the head of household.⁴⁸ The total sample amounts to 2,433 households. All household interviews were conducted anonymously in private and took about two hours to complete. We also conducted a village-level survey, in which we interviewed (on average) six key village officials to establish information about the village itself. Full details on how the data were collected and how the variables are defined, along with further information regarding the witchcraft cases in the sample, can be found in an online Appendix.⁴⁹

In asking about *hɔna* we invested considerable effort to ensure that both survey staff and survey instruments dealt carefully with a sensitive issue. Complete privacy in village conditions is hard to ensure. Informants were offered an option to remain silent as part of gaining informed consent, though few took advantage of this. Whether they preferred to give diversionary answers is hard to judge, but we made considerable efforts to pre-test questionnaire instruments and train interviewers. Supervision in the field was provided by a mother-tongue Mende-speaking member of our research team (Esther Mokuwa), who worked over many months to build rapport in these communities, and as a result our surveys (and the purposes they were meant to support) gained a wide measure of local acceptance and understanding. Even so, we cannot rule out under-reporting of witchcraft events or concerns, perhaps for reasons of shame or fear.⁵⁰ However, we have no reason to believe that under-reporting was

47. The GFP is a cooperative venture of the Royal Society for the Protection of Birds, the Conservation Society of Sierra Leone, and the national Ministry of Agriculture (Forestry Division).

48. We are aware that this potentially creates a bias in our data if witchcraft concerns and occurrences are related to individual characteristics. For our household survey we interviewed predominantly male heads of households. Concurrently, Richards designed a survey of 13 forest-edge villages where randomization was undertaken at the sub-household level. The results indicate that household heads are less pessimistic about land shortage and declining fallows than household dependants. See Paul Richards, 'Baseline report for FoSED [Food security and economic development project, Ministry of Agriculture, Forestry and Food Security, and Welthungerhilfe]' (Unpublished typescript, 2010, available from the author). We argue below that those more affected by land access issues are also likely to be more highly affected by witchcraft concerns. If this is correct, then our sample is liable to have underestimated the true magnitude of witchcraft concerns.

49. The Appendix can be downloaded free of charge at <<http://afraf.oxfordjournals.org/>>.

50. Gittins, *Mende Religion*, p. 158, adds that 'innocent people are careful never to formulate a suspicion [of witchcraft]' so that although 'witchcraft is a subject of great concern and fascination to the Mende, conversation tends to be of a general rather than a specific nature'. We took care to ensure that our questions could be answered at this general level.

systematically biased in some villages and not others, and therefore we proceed on the basis of the assumption that our point estimates may undershoot the target, but that the relevant comparative statistics (associations between witchcraft and institutional values) are not biased. For some questions we asked respondents to consider a five-year period (2005–9).

In order to conduct analysis at the village level, we averaged all of the individual responses in each village to create a ‘village mean’, which we then analyse alongside the village level data we collected by interviewing officials. We summarize our data in Table 1.

Three proxies capture ‘witchcraft’. Our first proxy is labelled ‘witchcraft concern’. This variable is the village mean response to the following

Table 1. Summarizing the data

Variable	Obs	Mean	Std Dev.	Min.	Max.
Cross-section data					
Witchcraft concern ⁽ⁱ⁾	175	1.63	0.80	0	4
Conflicts ⁽ⁱ⁾ , ⁽ⁱⁱ⁾	182	0.44	0.50	0	1
Witch finder ⁽ⁱⁱ⁾	182	0.21	0.41	0	1
Economic inequality ⁽ⁱ⁾	170	0.87	0.32	0.23	1.99
Distance to Gola ⁽ⁱⁱ⁾	168	4.11	1.81	1	7
Rotational labour ⁽ⁱ⁾	176	0.50	0.18	0	1
Polygynous proportion ⁽ⁱ⁾	171	0.21	0.13	0	0.67
Plantation area farmed to total farm land ⁽ⁱⁱ⁾	146	0.39	0.28	0	1
Swamp area farmed to total farm land ⁽ⁱ⁾	146	0.23	0.18	0	1
Public offences ⁽ⁱⁱ⁾	176	0.53	0.29	0	1
Land owned ⁽ⁱⁱ⁾	172	1049.55	1721.87	0	10500.00
Total non-agricultural income (log) ⁽ⁱ⁾	170	12.02	0.66	10.17	14.94
Stranger households ⁽ⁱⁱ⁾	176	4.19	4.33	0	15
Distance to chiefdom town ⁽ⁱⁱ⁾	154	5.33	1.67	1	8
War shock proportion ‘90 ⁽ⁱⁱ⁾	162	0.07	0.08	0	0.5
Population (log) ⁽ⁱⁱ⁾	174	5.40	1.10	2.30	8.01
Panel data					
Civic cases ⁽ⁱⁱ⁾	885	0.06	0.24	0	1
Drought ⁽ⁱⁱ⁾	847	0.53	0.50	0	1
Too much rain ⁽ⁱⁱ⁾	802	0.33	0.47	0	1
Crop disease ⁽ⁱⁱ⁾	854	0.82	0.38	0	1
Low yield ⁽ⁱⁱ⁾	842	0.60	0.49	0	1
Very high yield ⁽ⁱⁱ⁾	822	0.32	0.46	0	1

Sources: (i) Sierra Leone Household and (ii) Sierra Leone Village Survey 2010 (see Appendix for details).

question: 'Do you feel that witchcraft is a problem in your village?' We measured responses on a 5-point Likert scale (strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree). Our second proxy is the variable 'conflicts', which measures whether or not witchcraft-related conflicts occurred in the village. We collected information in both the household and village surveys. Questions were: 'Have you or your household been involved in any witchcraft-related civil conflict in the past 10 years?' and a request to sum up 'All incidents with witches over the past ten years'. We noted records of dates, people involved, and outcomes. Our 'conflicts' variable is a dummy, and takes a value 1 for each village reporting at least one case of civil conflict over witchcraft (and 0 otherwise). Our third proxy is the variable 'witch finder', capturing whether community members had invited specialists (witch finders or herbalists) to address suspicious deaths, or deal with accidents and mysterious poisoning events. We asked respondents to list all incidents where the village called such a specialist, including dates, who was called, the reason, outcome and cost. Our witch finder variable is also a dummy, taking a value 1 for each village that reported at least one incident. This three-pronged approach helps to overcome a potential objection that we have measurements only for insubstantial epiphenomena such as 'fear' or 'suspicion'. The third proxy measure, in particular, measures behaviour, not states of mind.

Not surprisingly, the correlation between 'witchcraft concern' and 'conflicts' is positive and significant (correlation coefficient 0.22, p -value = 0.002). It makes intuitive sense that more witchcraft accusations lead to more concern, as well as the other way around. The correlation between 'witchcraft concern' and 'witch finder' is negative and insignificant. This suggests that witch finders successfully identify witches, removing the threat they represent to society, thus alleviating some local anxiety.⁵¹ Comments collected in the village survey support the notion that witch finders have a good success rate, and manage to provide relief to anxious villagers.⁵² Finally, the association between 'witchcraft finder' and 'conflicts' has a correlation coefficient of 0.2 (p -value = 0.02), which is not surprising given that the latter is the occasion for calling the former. While witchcraft accusations

51. Johnson and Koyama in 'Taxes, lawyers' speculate that witchcraft trials in one location may accentuate witchcraft concerns nearby. Our data do not support this.

52. For example, one respondent in Semabu told us that 'S. K. is a witch finder and [that] he has proof [of] so many witches in this village.' Another villager spoke of a traditional woman healer named M. K.: 'The ... above [...] herbalist has greatly assisted us in Kamasu.' Gittins, *Mende Religion*, p. 201, having observed a witch finder at work, initially accused him of 'duplicity and deceit' but subsequently decided he was 'rather a socially recognised interpreter ... indispensable to Mende society'. On the work of the witch finder in northern Sierra Leone see Jackson, 'The witch as a category'.

can be made by anybody,⁵³ the legitimization of such an accusation involves finding the witch through a correct process (divination). This is done by the witch finder, who can also subsequently take the stand as a court witness. The availability of such a service may encourage witchcraft accusations, because it provides an enforcement mechanism.

The raw data from our village survey, covering the period 2000–10, reveal that in 38 villages a witch finder was called, reporting 52 instances in total. Of these a witch was found in no less than 42 cases. In 33 cases the witch was cured, while in eight other cases witches were punished, and one was reported killed. In the remaining cases no witch was found. In addition, we have information on the occurrence of witchcraft accusations and conflicts in 80 villages. If we consider witch finder and accusations data jointly, we find about half of the villages in our sample showed tangible evidence of witchcraft (96 villages). As mentioned, this may be an underestimate of the true state of affairs with respect to witchcraft in rural Sierra Leone, but in so far as under-reporting is not systematically associated with our institutional variables this will not affect our conclusions. The figures also clearly establish that witchcraft remains a significant, if not universal, problem in post-war villages around the Gola Forest.

The three witchcraft proxies serve as dependent variables in the empirical analysis below. We seek to explain witchcraft patterns by a vector of independent variables, summarized in Table 1 (see Appendix for definitions). We are particularly interested in variables that proxy for threats to collectivism or traditional norms. We hypothesize that threats to collectivism or traditional norms are associated with wealth inequalities. To measure this, we constructed a community-level economic inequality index based on the distribution of household asset holdings within each village (see Appendix for exact construction of this variable).

We also explore the relationship between witchcraft and what we here term communitarian and market-oriented agrarian practices. Communitarian in the present context is shorthand for the long-established agrarian livelihood system based on shifting cultivation of dryland rice on forested uplands (see above). This system owes its longevity, at least in part, to the way British colonial rule both preserved and modified local gerontocratic norms and institutions to suit purposes of Indirect Rule (local government run by traditional authorities). Subsistence agriculture, in the colonial period, was underwritten by the capacity of village gerontocrats to mobilize the unpaid labour of village

53. Dirk Kohnert, 'Magic and witchcraft: implications for democratization and poverty-alleviating aid in Africa', *World Development* 24, 8 (1996), pp. 1347–55; Isak Niehaus, Eliazaar Mohlala, and Kally Shokane, *Witchcraft, Power, and Politics: Exploring the occult in the South African lowveld* (Pluto, London, 2001); Ronald Reminick, 'The evil eye belief among the Amhara of Ethiopia', *Ethnology* 13, 3 (1974), pp. 279–91.

women and young men.⁵⁴ These local powers have been significantly revived by international programmes for the restoration of chieftaincy and local courts in the post-civil war period, even as a post-war boom in demand for local agricultural products has boosted local markets. Following Macfarlane, we are interested in testing the hypothesis that witchcraft accusation intensifies at the point where market options impinge upon and pose challenges to a well-entrenched communitarian system of governance over agrarian production.

We assess communitarian beliefs and values in three ways – distance to the Gola Forest boundary, involvement in rotational labour, and share of polygynous marriages within the community. The reserved Gola Forest is surrounded by a region of community forests, slowly whittled away by shifting cultivation during the last 100 years. On the whole, the largest areas available for upland rice farming remain on the margins of the forest. Areas along the main regional roads and closer to the regional headquarters (Kenema) have less community forest available for subsistence upland rice farming. Thus it makes sense first to consider simple distance from the forest edge as a possible proxy for variations in viability of the traditional communitarian agrarian system. We then consider two additional and more complex measures of the communitarian agrarian system – extent of participation in rotational labour groups and rates of polygyny. These pull in different directions. Strength of rotational labour organization limits the buying or selling of farm labour, and (more generally) the way in which cash tends to ‘dissolve’ peasant communitarian values. This is because labour reciprocity goes hand-in-hand with other collective activities – communal meals, ‘company’ dances, and group welfare activity.⁵⁵ The proportion of polygynous marriage is a proxy for a rather different aspect of communitarian agrarian persistence. It is, in effect, a carry-over from a pre-colonial era in which ‘big men’ built up large followings of clients and slaves. Polygyny remains a measure of the extent to which elders retain control over an unpaid farm labour force, through tying up women in marriage and young men as their lovers. Where polygyny is high ‘big men’ continue to make large rice farms and feed many followers.

Where this communitarian system is under challenge there is less upland rice farming, more own-account cultivation of swamp rice by junior household members (wives and young men), and more cultivation of plantation crops such as oil palm, coffee and cacao by the head of household. Like Macfarlane we expect witchcraft accusations to be highest where communitarian values are most actively under challenge, at

54. Mokuwa *et al.*, ‘Peasant grievance and insurgency in Sierra Leone’.

55. Male groups brush the bush and plant rice. Female groups carry out weeding. Mixed groups harvest rice.

the interface of community and market. We thus expect an inverted U-shaped relationship, with the peak of witchcraft trouble appearing in communities part way through a transition from upland rice farming to swamp farming and plantations.

We follow up this theme by explicitly considering ‘challenges to community’, looking at two proxies for market activity. First, we recorded the area of swamp and plantations (typically cocoa and coffee) farmed in the community. Swamp cultivation and plantation crop production rely on interactions with outside agents, especially over crop marketing and pre-financing arrangements (for example, market forces beyond the locus of the community). As discussed above, we expect market integration to be associated with witchcraft in a non-linear fashion, with conflict and concern minimized both at low and high levels of integration (that is, in the most communitarian and the most market-oriented communities, respectively). If concerns and conflicts emerge at the interface of community and market, then witchcraft should be most pronounced at intermediate values for cash crop production. Our second proxy for challenges to community values is a measure of respect for local by-laws. These are proposed by chieftom councils, made up of the paramount chief and other traditional figures of authority, and scrutinized and approved by the national parliament. We asked households to report if they had been accused of violating a community by-law (such as not paying community taxes, not showing up for unpaid community work, swearing in public, disobeying the chief, and so on) for the 2000–10 period. We expect public challenges to chiefly authority to be positively associated with witchcraft concerns.

We also wish to exploit the time dimension in our data by analysing how witchcraft-related civic cases (salient events that could be precisely dated, even when recalled a few years later) respond to certain shocks. We asked our respondents to recall certain events over a five-year period, allowing us to undertake a panel analysis. Specific panel variables are summarized in the bottom panel of Table 1. We consider three types of shocks: rains too late, rains too early, and crop disease. In addition, and as a robustness check, we consider two yield variables – one capturing unusually low yield episodes and another capturing unusually high yield episodes.

Finding witches by means of models

We now outline our empirical strategy. We commence with cross-sectional analyses, exploring whether witchcraft beliefs and actions co-vary with efforts to protect communitarian values and collectivism, or with higher economic inequality. We represent witchcraft concern, the

use of witch finders, and witchcraft-related conflicts by a vector of variables, and estimate three Probit models:

$$W_{jt} = \text{constant} + \beta_1 \mathbf{I}_j + \beta_2 \mathbf{TV}_j + \beta_3 \mathbf{CT}_j + \beta_4 \mathbf{X}_j + \beta_5 \mathbf{FE}_k + \varepsilon_j \quad (1)$$

Our dependent variable, W_j , measures witchcraft concern, witch-finder reliance, or witchcraft conflicts in village j ($j = 1, \dots, 182$).⁵⁶ As discussed above, we distinguish between different ‘types’ of explanatory variables. The variable \mathbf{I}_j is our economic inequality measure, which proxies for jealousy. Vector \mathbf{TV}_j captures communitarian values, as measured by nearness to Gola, the share of polygynous households in village j , and labour mobilization by means of rotational work groups. Vector \mathbf{CT}_j contains our proxies for challenges to communitarian values (land allocated to cash crops, and public offences). Vector \mathbf{X}_j contains our controls, including measures of wealth and income (land ownership and non-agricultural income), the total number of stranger households, distance to the nearest urban centre, community size, and conflict intensity during the civil war in Sierra Leone. Finally, we control for (unobserved) regional differences by including a vector of chiefdom-level fixed effects, \mathbf{FE}_k ($k = 1, \dots, 7$).

As outlined, and following Macfarlane, we have grounds to believe that some variables will have non-linear effects. Specifically, while modest levels of cash-crop production may represent a threat to communitarian values, full integration into markets arguably implies that communitarian values have been supplanted by individualistic ones. This can be tested by including a higher-order term for the swamp and plantation variables in the regression model explaining witchcraft. We expect the linear and squared terms to enter, respectively, with positive and negative signs. That is, we expect intermediate levels of cash crop production to invite witchcraft concerns and conflict, but witchcraft should emerge as less of a problem in both the more fully communitarian and the more fully market-oriented communities.

We continue with panel analysis of shocks and witchcraft-related conflicts. Our shock data include damaging rainfall events, crop disease, and two variables measuring unusually low or high yields. We estimate a model that contains a vector of chiefdom dummies ($k = 1, \dots, 7$), capturing all time-invariant characteristics of the region:

$$W_{jt} = \alpha_k + \beta_1 S_{jt} + \varepsilon_{jt} \quad (2)$$

56. As mentioned, the dependent variables are correlated. Subsequently, the error terms of the models presented in Table 2 are correlated also, thus posing a potential bias in our results. We hence also estimate the three models as one system. The results are qualitatively similar (not shown, available on request).

where W_j is witchcraft conflicts and S_{jt} is a vector of (weather or yield) shocks hitting village j in year t .

Determinants of witchcraft at the Gola Forest edge

We now explain the determinants of witchcraft, focusing on our three proxies separately: concerns, witch finders, and conflicts. Table 2 contains our main results. First, and consistent with our earlier discussion, these results suggest that our three witchcraft proxies measure different things – they tend to correlate with different explanatory variables. While some explanatory variables, such as public order offences and distance to the forest, enter consistently (in terms of sign and significance) across the three witchcraft variables, the same is not true for other potential determinants of witchcraft. Inequality, for example, is correlated with witchcraft concern and witch finders, but not with conflicts. Interestingly, and perhaps surprisingly, a few control variables are consistently uncorrelated with our witchcraft proxies. These are our measure of land ownership (total land owned) and the local history of violence during the civil war.

We consider the correlates of witchcraft concern first. Inequality is correlated with concern, but the nature of the association is opposite to what might have been anticipated – more unequal communities tend to be characterized by *less* witchcraft concern. A key to understanding this conundrum may be gleaned from Column 2 in Table 2. This indicates that more unequal communities more often call upon the services of witch finders. One obvious explanation is that richer members of the community, heeding community concerns, are able to pay the witch finder's expenses, which are often quite considerable. If witch finders are able to identify the witch and address the problem, then witchcraft concerns will be attenuated.

Results in Column 1 provide some support for the claim that isolation matters. As the distance from the Gola Forest increases, witchcraft concerns become less prevalent. This might suggest that forest-edge villages are more conservative in their beliefs, but at the same time there is some support for the idea that challenges to communitarian values drive witchcraft concerns in a non-linear fashion. Witchcraft concerns initially intensify as the share of plantation area increases, but at a diminishing rate. As the share of plantation land increases beyond 37 percent of total farm area, the sign of the correlation switches. Further, larger shares of plantation land are associated with reductions in witchcraft concerns – market values here appear to have successfully replaced communitarian ones. The idea that challenges to communitarian values drive witchcraft activity is confirmed by the fact that public offences are statistically significant and with a positive sign. Villages in which the public authorities are more

Table 2. Determinants of witchcraft

	(1) Witchcraft concern Ordered Probit	(2) Witch finders and traditional healers Probit	(3) Witchcraft conflicts Probit
Economic inequality	-0.771* (0.458)	7.656*** (2.643)	0.180 (0.537)
Polygynous proportion	-0.270 (0.952)	-8.993** (3.799)	-2.419** (1.226)
Distance Gola Forest	-0.231*** (0.0791)	-0.427** (0.210)	-0.203* (0.104)
Participation in rotation labour (<i>kɔmbir</i>)	-0.112 (0.844)	15.77*** (5.233)	0.837 (0.994)
Plantation area farmed to total farm land	2.780** (1.410)	-0.346 (4.961)	0.391 (2.113)
Plantation area farmed to total farmland (sqrt)	-3.759*** (1.366)	9.595 (6.787)	-0.354 (2.250)
Swamp area farmed to total farm land	1.536 (2.081)	23.73 (15.52)	6.878** (3.065)
Swamp area farmed to total farmland (sqrt)	-1.919 (2.413)	-46.10* (27.26)	-7.866** (3.179)
Public offences	1.735*** (0.584)	8.245*** (2.509)	1.183* (0.677)
War dead by proportion '90	2.041 (1.643)	-2.121 (4.414)	0.730 (2.222)
Population (log)	0.0729 (0.125)	2.321*** (0.732)	0.350** (0.150)
Distance chiefdom town	-0.146* (0.0752)	0.301 (0.214)	0.120 (0.101)
Total land owned	0.0001 (0.0001)	-0.0001 (0.0002)	0.00003 (0.0001)
Total non-agri income (log)	0.0156 (0.214)	2.338** (1.156)	0.310 (0.267)
Stranger households	0.00480 (0.0377)	0.604*** (0.194)	0.0152 (0.0528)
Constant	...	-62.71*** (22.58)	-7.727** (3.489)
Chiefdom FE	Yes	Yes	Yes
<i>N</i>	106	89	106
pseudo <i>R</i> ²	0.21	0.70	0.31

Robust standard errors in parentheses, **p* < 0.10, ***p* < 0.05, ****p* < 0.01.

Source: Sierra Leone Household and Village Survey 2010 (see Appendix for details).

often challenged are characterized by higher levels of witchcraft concern. It seems likely that this is because chiefly rule is seen to be weak, and this creates a suspicion that forces of insidious harm are no longer held in check. This would imply that the two forms of esoteric danger distinguished by Mende villagers – *hɔna* and *bɔni* – are in actual fact correlated, but as explained above we have no data to test such a proposition.

Next, we turn to the communal use of witch finders, presented in Column 2. Witch finders are costly by village standards. The average cost of a visit is over Le 180,000 (US\$40) with a range from Le 10,000 to Le 1.5 million, in communities where daily wage rates are around US\$1.25. Since the witch finder's fee represents a cost for the community, it is no surprise that larger and wealthier communities tend to be associated with higher use of witch finders. In so far as free-riding inhibits the pooling of resources across villagers, we may expect that concentrated wealth (inequality) facilitates the raising of sufficient money to hire a witch finder. Indeed, as mentioned above, there is a positive association between inequality and reliance on witch finders. An alternative explanation would be that inequality invites jealousy and thus ignites witchcraft charges.

That there is no simple connection between communitarian values and witchcraft becomes obvious from the apparently contradictory findings that the share of polygynous households in the community is negatively correlated with the employment of witch finders and that membership in rotational labour-sharing groups is positively correlated with employment of witch finders. Some of the basis for the power of village chiefs and elders lies in the system of polygyny. Elders with multiple wives can embark on substantial upland rice farming ventures, and ensure supplies for the upkeep of large families, since the wives do most of the routine farm work. But elders need access to the labour of young men to break seasonal bottlenecks in clearing and planting. Some allow their wives to entice young men into liaisons, thus ensuring a ready supply of male labour through fines for 'woman damage', paid off in the form of labour on upland farms.⁵⁷

The shortage of male labour necessitating this ruse arises where labour companies are strongly organized. 'Middle peasants' (those who are neither patrons nor clients) join reciprocal labour groups not only because the work goes faster in the company of peers but also because they want to reduce the chances that elders and chiefs will 'pull rank', and demand assistance on their own farms at busy farming periods. A farmer who has to obey the rules of his 'company' has a ready-made excuse not to comply, whereas a man who was simply planning to work on his own farm that day will find it harder to resist the call of a social

57. Mokuwa *et al.*, 'Peasant grievance and insurgency in Sierra Leone'.

superior. Thus where the power of the rotational labour groups is strong the power of elders is correspondingly weaker, and vice versa. The witchfinder results fit this pattern. The need for the witch finder is greater where control by elders is less secure (that is, where labour groups are strong). Where the power of elders is undiminished, anxiety about witches is lower and the need for witch finders is reduced. It is worth adding that the challenges emerging from the incorporation of villages in market modes of exchange seem to annul this rivalry. Neither the plantation share, nor the swampland share, are associated with witch finders. This suggests that witch finding is associated with the normative clash in upland rice farming, where a 'free peasant' class and a ruling elite (historically dependent on the labour of farm slaves) compete. Witchcraft then appears to diminish in significance when free-market factors grow in influence.

Finally, Column 3 contains our regression results for the witchcraft accusations (or conflict) variable. Conflicts emerge more frequently in larger communities, which is no surprise. While none of the other control variables enters significantly, our results support the interpretation advanced in relation to the witch finder results. Thus, the share of polygynous households, as well as distance to the Gola Forest, are significantly correlated with witchcraft conflicts. The data also support the hypothesis that witchcraft accusations emerge where there is transitional conflict over the loss of agrarian values. Conflicts are associated with share of land in swamp rice production. Again the nature of this relation is best described as an inverted U. Specifically, conflict intensifies with expanding swamp cultivation as long as the share of swamp area is less than 44 percent of total farmland. When swampland cultivation extends to a larger share of the community land, the relationship is reversed and enhanced swamp cropping is correlated with fewer witchcraft conflicts.

In a related study of 13 Gola forest villages and 12 controls, household heads and household dependants were asked whether upland shifting cultivation was thought to be stable or threatened by declining fallow periods.⁵⁸ Household heads (many of them the chiefs and elders of their communities) reported a system in balance. Household dependants (mainly women and young men) reported a system in decline. It was among this latter group that the greatest interest was shown in swamp rice cultivation. Swamp rice cultivation opens up a pathway to market sales and cash income for household dependants. When a trend towards greater swamp cultivation begins, the level of witchcraft accusations rises, perhaps because there are no clear rules for how land is to be allocated and benefits shared. Swampland is typically 'begged' from household

58. Richards, 'Baseline report'.

heads not interested in using the land this way themselves. It is thus an area where chiefly governance is weak, and again this seems to generate tensions and accusations among peers. As swamp rice farming becomes more dominant some of these institutional uncertainties are addressed, and tensions and accusations decline. In effect, our interpretation mirrors that of Macfarlane, in suggesting that witchcraft accusation is something that is particularly closely tied to key moments of institutional shift in the agrarian economy. In the present case the transition is from patrimonial rules of subsistence farming to market governance (land rents and crop sales).

In regard to plantation tree crops the situation is somewhat different. Here the association is not with witchcraft accusations, but rather with witchcraft anxiety. Typically, the land and the trees are owned by chiefs and elders. As with the Azande, it would be unseemly for a Mende commoner openly to accuse a chief or elder of witchcraft. There can be no moral ambiguity about the trees since the rules of land ownership and tree planting are family based and clear to all. The head of household has an undisputed right. But at the same time this does not calm fears that chiefs may be becoming too enmeshed in business activity. Maybe the chiefs have taken their eye off the (political) ball. Anti-social forces – evident in tensions among neighbours – may as a result have slipped their leash. Anxiety mounts, though as yet there are no grounds for concrete suspicion. If there were, then the chiefs themselves might pay for a visit by the witch finder to ease the strain.

This is exactly what they do in villages with higher than average numbers of stranger households. Strangers are often welcome in a village – they open up trade, provide skilled services and offer essential farm labour. But there is always a degree of suspicion about strangers, at least until they marry into the community. How will they be held to account? If items are stolen, strangers may be among the first to be suspected. Experience of infiltrators during the war also now adds to tensions over strangers. Chiefs and elders, mindful of the costs and benefits of having a large number of strangers in the village, may be more than willing to re-invest some of the profits of a new-found post-war prosperity in a large and socially diverse village by paying for a visit by a witch finder. Some of these diviners, it should be noted, are also expert in detecting thieves.

Finally, results from our panel analysis in Table 3 do not support the idea that shocks are an important determinant of witchcraft conflicts. Controlling for all time-invariant factors at the chiefdom level and focusing in on inter-temporal variation in rainfall and yields within villages, we find that weather and disease shocks are not associated with witchcraft, with the exception of unusually large crop yields, a beneficial shock that appears to reduce witchcraft conflict.

Table 3. Weather and yield shocks and witchcraft conflicts

	(1)	(2)
Drought	0.452 (0.321)	0.510 (0.319)
Too much rain	0.0458 (0.322)	-0.303 (0.340)
Crop disease	0.772 (0.532)	0.717 (0.533)
Low yields	-0.179 (0.328)	-0.321 (0.357)
Very high yields	-0.646* (0.387)	-0.688* (0.415)
Constant	-3.231*** (0.557)	-420.6* (229.7)
Chiefdom dummies	No	Yes
Year trend	No	Yes
N	748	748

Standard errors in parentheses *p < 0.10, **p < 0.05, ***p < 0.01. Rare event logit regression.

Source: Sierra Leone Village Survey 2010 (see Appendix for details)

Discussion: on being caught in the middle

Our initial expectation in this study was that we would find a simple gradient from the forest outwards; the more isolated communities on the forest margins would be more communitarian and therefore more prone to witchcraft manifestations. Instead we found what we have termed an inverted U-shaped relationship. The communities least troubled by witches are both those where the older agrarian subsistence economy survives in its least modified form and those where a newer market-oriented agrarian economy is most fully developed. The trouble with witches lies in between, in those communities moving from one set of rules to another, but where transition is not fully achieved. These communities 'caught in the middle' are vulnerable to witchcraft manifestations either because groups within them are seeking to row back towards the old ways, as argued by Platteau, or because other groups, exploring a new framework, are seeking scapegoats for their own troubling feelings of guilt, as argued by Macfarlane. We lack firm evidence to choose between these variants, but it appears that institutional flux is, in either case, the underlying explanation for the epidemiology of witchcraft manifestations in the Gola Forest region. In contrast, conflict and weather, or yield shocks, do not seem to be robustly associated with witchcraft.

What this implies is worth further discussion. It seems apparent that the real source of unease is the sense that the foundations of power are undergoing change, and that in those communities 'caught in the middle' there is genuine uncertainty about the rules, and who is in charge. Even a repressive social order may be to an extent tolerable when it is stable, and those within the system can calculate their options. Communities 'caught

in the middle' have multiple frameworks of regulation. Two or more sets of rules seem to apply. This generates troubling doubt about the relative power of contending parties, and where underlings should place their bets, in terms of loyalty, obligation, expectations of assistance, and so forth. Perhaps the most telling of our results in this regard is the negative relationship between witch-finding activity and high levels of polygyny on the one hand and the positive relationship between witch-finding activity and rotational labour groups on the other.

Both polygyny and labour group participation are long-established features of coastal Sierra Leonean society, being attested in the early seventeenth century, according to Portuguese documentary sources.⁵⁹ The expectation is that polygyny and farming groups might pull witchcraft in a single 'traditional' direction. They do not, and this is because they represent opposite sides of a power struggle in local agrarian communities – between a former slave-owning ruling class on the one hand and groups of free peasants on the other – triggered (or intensified) by the colonial abolition of domestic and farm slavery in 1928.⁶⁰ The chiefs build power through polygyny, the peasants through labour sharing. Where the chiefs are clearly in control then the services of the witch finder are not needed. Where peasant power is growing, relative to chiefs, the witch finder's services are in demand because no one quite knows where peasant republicanism might lead. In particular, how well will threatening spirit forces from the forest be kept under control if chiefs lose their intermediary role?⁶¹

We have argued something similar in regard to the major technical changes occurring in local agriculture – the expansion of swamp rice farming and the growth in tree-crop cultivation. Both require adjustments in institutional arrangements. The established system puts land in the hands of the elders of the 'lineage' (the conical clan). Tree-crop planting is mainly done by household heads with clear rights to the land on which the trees are planted. Swampland poses more of a problem. It is owned by clans, but (historically) has been used mainly for gathering purposes

59. Manuel Alvares, c. 1615, *Ethiopia Minor and a Geographical Account of the Province of Sierra Leone* (provisional translation by Paul Hair, Unpublished, 1990).

60. For further information on the agrarian consequences of emancipation in rural Sierra Leone see Bruce Mouser, Edwin Nuijten, Florent Okry, and Paul Richards, 'Commodity and anti-commodity: linked histories of slavery, emancipation and red and white rice at Sierra Leone' (Commodities of Empire Working Papers, WP19, 2012).

61. For a general account of forest spirit forces and the making of forest-edge society in coastal Upper West Africa see Paul Richards, *Fighting for the Rain Forest: War, youth and resources in Sierra Leone* (James Currey, Oxford, 1996), Chapter 3. On Mende fears that women and young men alone in the forest can cause havoc through coming into contact with forces they fail to understand see Donald Cosentino, 'Midnight charters: Musa Wo and the Mende myths of chaos' in W. Arens and I. Karp (eds), *The Creativity of Power* (Smithsonian Institution Press, Washington, DC, 1989).

(wild raffia palms, in particular, are important sources of building materials and wine). Work on swamp rice agriculture is arduous, and not undertaken willingly by those with adequate reserves of land for upland shifting cultivation. Those who invest in swamp production tend to be women, dependent young men and strangers. Since they 'beg' rather than own swampland, they are never quite sure whether their labour investment is safe. Family elders, seeing that a swamp has been productively developed, may decide to remove it from the user and take it over for themselves. These uncertainties only reduce when the swamp system becomes more general, and regular tenancy agreements begin to appear. It is at this point that witchcraft manifestations start to recede.

Conclusion

Our conclusion, therefore, is that witchcraft in communities around the Gola Forest is associated neither with the cohesion of 'tradition' nor with the malcontents of 'modernity', but with institutional uncertainties reflecting unresolved social conflicts over norms of agrarian governance where rival livelihood systems clash. In the specific context of the Gola Forest these conflicts arise from a historical transition from mercantilism associated with the Atlantic slave trade and colonialism to more open forms of trade associated with the global 'liberal' economic system of recent times. Where only one set of rules prevails – it does not matter which – then the system is untroubled by witches. Witchcraft emerges in zones where institutional flux is highest and value systems compete. The witch is the product of normative ambiguity.

Although we were unable to collect sufficient data on *bɔmi* ('cannibalism') to compare with *hɔna* (witchcraft) it seems from qualitative evidence that the explanation we offer for witchcraft would also apply to 'cannibalism'. Regime change is the space occupied by this particular manifestation of insidious harm.⁶² Once the regime has changed – for good or ill – panic subsides. In this context it is worth emphasizing that we found no significant association between war shocks and witchcraft manifestations. This is consistent with our argument about clash of institutions. The war is over, and the armed rebel movement no longer exists. Grievous though

62. Documents collated by Milan Kalous from the Sierra Leone archives suggest that *bɔmi* first emerged in the second half of the nineteenth century, and was particularly associated with the coastal Imperri district, a zone of ambiguous political control. It was not part of the British Crown colony at Freetown, established in 1807, but increasingly came under British political supervision during the second half of the nineteenth century, at a time when the interior of southern Sierra Leone was still firmly in the hands of independent Mende chiefs. In other words, Imperri was caught between two institutional worlds. See Milan Kalous, *Cannibals and Tongo Players of Sierra Leone* (Privately printed, Trentham, New Zealand, 1974).

the scars of war may be, there is no longer any institutional ambiguity. The villagers of the Gola Forest no longer have to pay heed, as they did during the war, to the possibility that one day they might live permanently under a revolutionary regime. There are no witches hovering over the aftermath of war since, whatever disadvantages the local population might perceive in the post-war state of affairs, sovereignty is no longer a contested issue.

What, finally, are the practical implications of these findings? The effects of witchcraft panics undoubtedly threaten economic development and hamper efforts at poverty alleviation. And yet, if our conclusions are sound, attempts to accelerate economic development, or redress extreme poverty, will also threaten social harmony, at least prior to reaching the mid-point of the inverted U, by exacerbating fears of insidious harm. Our analysis underlines the need to introduce as much clarity as possible about unfamiliar rules of governance. Swamp rice production is a useful case in point for a country such as Sierra Leone, since there is genuine doubt about the rights of landowners and land users. Witchcraft thrives on doubt and mistrust. The underlying doubts might be removed by clearer rules over land titling and legally enforceable rental agreements. Building trust depends on investment in institutional capital of both a formal and informal kind. Most of the work of the witch finders, we discovered, concerns mediation between conflicted parties. Our data suggest they have some success, but only up to a point. Perhaps thought should now be given to how to boost this success. The topic of cultural brokerage as an aspect of the institutional dynamics of African development seems ripe for attention.