

SOCIAL CAPITAL AND CIVIL WAR: THE DINKA COMMUNITIES IN SUDAN'S CIVIL WAR

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ABSTRACT

It is generally assumed that violent conflict has a negative effect on social capital, and war zones are considered to be 'zones of social capital deficiency'. This article challenges this position, and attempts to develop a more nuanced understanding of the status of social capital in the context of Sudan's civil war. The empirical findings clearly question any simplistic assumption that conflict erodes social capital. While it is true that certain types of social capital have been a casualty of civil war, the opposite is the case in other communities. The article explains this difference by drawing a distinction between 'endogenous' and 'exogenous' counter-insurgency warfare. Communities in southern Sudan that were exposed to endogenous counter-insurgency warfare experienced a loss of social capital, but where exogenous violence dominated, there has been a deepening and strengthening of bonding social capital among and within communities.

SINCE THE END OF THE COLD WAR, CIVIL WARS have become endemic to many African countries and the continent has the highest incidence of intense civil wars of any world region. This upsurge of violence has undoubtedly had a considerable negative impact on the socio-economic structures of rural communities, resulting in loss of lives as well as widespread disruption and loss of productive assets and capacity. There is also a general perception that civil wars are eroding or weakening social capital, even leading to the breakdown of organized society. Jeremy Swift, for example, has noted that social capital, as one of the bases for survival in African rural societies, is being deliberately targeted by counter-insurgency warfare and often becomes one of the first casualties of civil war.¹ Its destruction, or absence, in turn makes civil war even more likely. In most studies on civil wars, investment in social capital in the 'war zone' is per-

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1. Jeremy Swift, 'War and rural development in Africa', *IDS Bulletin* 27, 3 (1996), pp. 1–5.

ceived as non-existent. The very nature of civil war is seen to inhibit any positive role being played by conflict in the processes of social change. In this context, international agencies operating in war zones frequently start to engineer their own handpicked indigenous NGOs to supply social capital during civil war.

However, recent thinking has begun to challenge the premise that civil wars undermine social capital, arguing instead that violence is less about social breakdown than about the creation of new forms of social relations.² Such studies show how conventional interpretations of civil war have frequently failed to heed the subtle, yet important, social risk management strategies adopted by households during prolonged conflict. Focusing on the civil war in Sudan, this article is a contribution to this debate. Drawing on extensive field research, the article aims to provide a nuanced understanding of the status of social capital during the civil war in southern Sudan.³ The empirical findings clearly reject any simplistic assumption that conflict erodes social capital. While it is true that certain types of social capital have been a casualty of the war, there has been a simultaneous deepening and strengthening of bonding social capital in other contexts. The main argument of the article is that the nature of counter-insurgency warfare explains much of the differential variation in the level and status of social capital during civil war.

Dinka social capital and forms of counter-insurgency warfare

The concept of 'social capital' has gained considerable appeal in recent years, and has dominated debates in both the theoretical and applied social science literature, where it is frequently seen as crucial in promoting economic growth and fostering good governance. While anthropologists have long recognized the crucial role played by social capital, economists are now beginning to acknowledge its importance as one of the determinants of economic growth and a tool of risk management. Despite its popularity, however, the debate about the concept of social capital is far from settled. For sociologists, social capital is primarily understood in terms of bonding, for political scientists it is about 'bridging', and yet others consider it in terms of 'linking'.⁴ In one of the most authoritative statements, Robert

2. David Keen, 'Incentives and disincentives for violence' in M. Berdal and D. Malone (eds), *Greed and Grievance: Economic agendas in civil wars* (Lynne Rienner, London, 2000).

3. The article draws on the research undertaken for my PhD thesis, *Confronting Civil War: A comparative study of household livelihood strategies in southern Sudan during the 1990s* (University of Sussex, Institute of Development Studies (IDS), unpublished PhD thesis, 2003).

4. Michael Woolcock, 'Managing risk, shocks, and opportunity in developing economies: the role of social capital' in Gustav Ranis (ed.), *Dimensions of Development* (Yale Center for International and Area Studies, New Haven, CT, 1999), pp. 197–212.

Putnam defines social capital as informal and organized reciprocal networks of trust, while Francis Fukuyama defines it as informal norms that promote co-operation between individuals and groups.⁵ In the context of this discussion of the Dinka of Sudan, I define social capital in terms of bonding and as the stock of reciprocal networks of trust and norms that are rooted in a Dinka traditional way of life (*cieng*) and their traditional virtues and ideals of human dignity (*dheeng*).

Despite the growing recognition of the role of social capital in risk management, an understanding of its status and effectiveness during civil war is inadequately researched. It is a widespread perception that the relation between social capital and civil war is an inverse relationship because the concept of social capital emphasizes cooperation and downplays any role that civil war can play in reducing the grievances that usually trigger civil wars. It is thus generally assumed that violent conflict has a negative effect on social capital, and war zones are considered to be 'zones of social capital deficiency'.⁶

However, such a generalization about the inverse relationship between social capital and civil war is too simplistic. As David Keen has shown, the origin of civil war is less about social breakdown than about the creation of new forms of political and economic relations.⁷ Similarly, on the basis of empirical analysis of war-affected communities in Sri Lanka, Jonathan Goodhand, David Hulme, and Nick Lewer have also questioned the belief that violent conflict inevitably erodes social capital.⁸ Instead, the authors observed that, in a war zone, social capital was strengthened and deepened in the more stable areas, while it was depleted in front-line areas suffering from chronic insecurity.⁹ In a way this finding, paradoxically, supports the assumption that violent conflict undermines social capital, but it also points to the need for more careful and nuanced analysis of this relationship. This article takes up this challenge in the context of southern Sudan.

Before proceeding, it is useful to consider the traditional social systems of the Dinka, as a basis for their contemporary development of social capital. Despite recent assessments of the impact of civil war on Nuer traditional

5. Robert Putnam, *Making Democracy Work: Civic traditions in modern Italy* (Princeton University Press, Princeton, NJ, 1993); Francis Fukuyama, 'Social capital, civil society and development', *Third World Quarterly* 22, 1 (2001), pp. 7–20.

6. Jonathan Goodhand, David Hulme, and Nick Lewer, 'Social capital and the political economy of violence: a case study of Sri Lanka', *Disasters* 24, 4 (2000), p. 390.

7. Keen, 'Incentives and disincentives for violence'.

8. Goodhand *et al.*, 'Social capital and the political economy of violence'.

9. *Ibid.*, p. 401.

10. Sharon E. Hutchinson, *Nuer Dilemma: Coping with money, war and state* (University of California Press, Berkeley, CA, 1996).

11. Simon Harragin, 'The southern Sudan vulnerability study', (Save the Children Fund (UK), Nairobi, 1998).

social systems¹⁰ and vulnerability among Dinka,¹¹ Francis Deng's studies from the 1970s still provide the best starting point for an account of the normal Dinka social systems and how such systems changed and transformed over time in the face of modernization and the first civil war in the 1960s.¹² Accordingly, I use this account as a basis for assessing the status of social capital during the second civil war in Sudan (1982–2005). Like those of other pastoralist societies, the social safety nets and traditional risk-pooling arrangements of the Dinka range from customary economic exchanges, such as generalized, balanced, and negative reciprocity to customary redistribution systems, such as horizontal and vertical redistribution.¹³

The traditional Dinka social safety nets are well rooted in their social relations (*cieng*), their notions of human dignity (*dheeng*) and their communal ownership of wealth. The social relations of Dinka are largely determined and nurtured by marriage (*ruai*) and their notions of human dignity are reflected in values, such as pride, hospitality, and generosity. These distinctive characteristics of Dinka are important aspects of social capital to be assessed during civil war in the 1990s.

The Dinka communal right over property and wealth is primarily derived from their relationship to their divinity (*yieth*), to which all wealth and property belong, and individuals are entrusted with control over wealth and property.¹⁴ This inseparable link between wealth and social responsibilities is well reflected in the Dinka words *adheng* and *ajak*, which mean 'rich' and may also be translated as 'kind', 'generous', 'gentle' or in a word 'noble'.¹⁵ Thus calling a person 'rich' in Dinka is another way of describing what is expected of his relations with other people. The Dinka saying, 'What is given circulates, and what is consumed is wasted' explains much about the importance and nature of social capital among the Dinka.¹⁶ In spite of these strong Dinka values that supply social capital, it is questionable whether such values persist during civil war.

In assessing the impact of civil war on rural livelihoods, it is important to understand the way in which the war is fought and conducted. Much of the human devastation during civil war can be traced back to the criminal tactics through which the war is fought, conducted, prosecuted, and sustained. As governments at war with their citizens become increasingly

12. Francis Deng (ed.), *Tradition and Modernization: A challenge for law among the Dinka of the Sudan* (Yale University Press, New Haven, CT, 1971); Francis Deng, *The Dinka of the Sudan* (Waveland Press, Long Grove, IL, 1972).

13. Jeremy Swift, 'Understanding and preventing famine and famine mortality', *IDS Bulletin* 24, 4 (1993), pp. 1–16.

14. Godfrey Lienhardt, *Divinity and Experience: The religion of the Dinka* (Clarendon Press, Oxford, 1961), p. 23.

15. Deng, *Tradition and Modernization*, p. 251.

16. *Ibid.*, p. 268.

unable to sustain and control their armies, they turn to local sources of provisioning through counter-insurgency warfare that involves intense predatory behaviour of soldiers and their militias.

The post-independence Sudanese leaders who inherited political power, instead of winning political support from all their citizens, adopted counter-insurgency campaigns to suppress the civil wars waged by communities whose political aspirations had not been met by the independence arrangements. The Sudanese ruling elite presided over a state that lacked the means for effective and disciplined counter-insurgency and have resorted to recruiting civilians into unpaid militias.¹⁷

In southern Sudan, the second civil war started in 1982 and gradually reached most rural areas by 1990. The Bahr el Ghazal region, as one of the three regions of southern Sudan, was the epicentre of counter-insurgency warfare in the 1990s. This counter-insurgency campaign was being waged by the government militia, mainly composed of northern Arab pastoralists who live just to the north of the internal frontier of Bahr el Ghazal region, and, later in the decade, by southern militias sponsored by the government of Sudan (GoS) and composed of the major ethnic groups of southern Sudan (Nuer and Dinka).

The situation in Bahr el Ghazal region worsened after 1991 when divisions erupted within the main rebel movement, the Sudan People's Liberation Movement (SPLM), which resulted in a splinter group (mainly composed of Dinka and Nuer). This splinter group joined the government forces to further intensify counter-insurgency warfare in Bahr el Ghazal region, a stronghold of the SPLM. Unlike the raids of the Arab militia that were exogenous and occurred during the dry season, the counter-insurgency warfare that was waged by the splinter group (Dinka militia) was all-year-round and emerged from within the Dinka communities. For easy reference I term the counter-insurgency warfare that is waged by government militias using members within the targeted communities (such as Dinka) 'endogenous counter-insurgency', while the counter-insurgency warfare waged by government militias using members outside the targeted communities (such as the Arab militia) is termed 'exogenous counter-insurgency'.

The effects of endogenous and exogenous counter-insurgency on social capital

The unique characteristics of Bahr el Ghazal region and its experience in the 1990s made it ideal for assessing the status of social capital during civil war, and the extent to which violence erodes social capital. The period covered by the study is the 1990s, with the pre-war period used as a baseline to gauge changes and trends in the level of social capital. The years 1988 and

17. Keen, 'Incentives and disincentives for violence'.

Table 1. Community perceptions of sources of risk in the 1990s

Main sources of risk	Community perceptions (%) of sources of risk	
	Abyei	Gogrial
Dinka militias	17	68
Arab militias	62	9
Nuer militias	13	11
Drought	8	12
SPLM/GOS war	0	0
Diseases (human/livestock)	0	0

1998, when famines occurred in Bahr el Ghazal region, were used as important benchmark years.

The data used in this article are from my thesis, which provides a detailed analysis of vulnerability during civil war in southern Sudan. The primary data were collected during the 2000–1 fieldwork period in the two areas of Abyei and Gogrial in Bahr el Ghazal region. The two sample areas were purposefully selected to represent different communities exposed to exogenous counter-insurgency warfare (Arab militias) and endogenous counter-insurgency (Dinka militias), as shown in Table 1. The data in Table 1 are generated from community surveys using focus group discussion and proportional piling as the appropriate participatory methods for gauging the community perception about sources of risk they faced in the 1990s.

Because of the lack of secondary socio-economic household data in southern Sudan, questionnaire-based household surveys (about 211 households in Abyei and 205 households in Gogrial) and community surveys (female and male focus group discussions conducted separately in each area) were used as the most relevant field methods to investigate changes and trends in the level of social capital. The use of a hybrid approach consisting of the two methods is necessary: each provides a separate emphasis, and complements the other within the overall research into changes and trends.¹⁸

Despite lack of agreement over the measurement of social capital, a consensus is now building around using the internal cohesion of a given group and the way in which the group relates to outsiders as critical qualitative measures of social capital.¹⁹ As the aim of this article is to assess the status of social capital during civil war, the focus in this section is the effects of

18. Frank Ellis (ed.), *Rural Livelihoods and Diversity in Developing Countries* (Oxford University Press, Oxford, 2000), p. 198.

19. Fukuyama, 'Social capital, civil society and development', p. 13.

Table 2. Level of household cattle ownership in the 1990s

Research communities	Years	Average number of cattle owned by households			
		Initial level of household wealth status			
		Poor	Middle	Non-poor	Total
Abyei	1988	15.1	25.9	112.0	52.6
	1993	11.2	26.1	97.3	47.3
	1998	5.3	13.4	37.5	20.2
Gogrial	1988	5.9	54.4	97.0	59.3
	1993	16.8	47.0	40.7	39.3
	1998	1.6	7.8	6.7	6.3

counter-insurgency warfare on internal cohesion and relations with outsiders as critical aspects. In order to measure the level of social capital during civil war, I asked specific questions in the household survey to generate data for proxy measures of trust or distrust, cooperation, and cohesiveness. These proxies include status of cattle ownership, kinship support, structure of households, traditional court settlements, marriages, social ties, and mutual labour assistance clubs.

Cattle ownership

For Dinka, livestock – particularly cattle – are not only part of their life; they *are* that life.²⁰ Cattle are the primary feature of the Dinka economy and their significance goes beyond their economic value, as they are used to maintain social relations, religious values, and political institutions. The names of most Dinka are derived from the colours of their cattle. The names of their social structures are equally derived from the ways they manage their cattle. The value of cattle in Dinka society, as described by Godfrey Lienhardt, is that of ‘something to which men have assimilated themselves, dwelling upon them in reflection, imitating them in stylised action, and regarding them as interchangeable with human life in many social situations’.²¹ Assessing the status of cattle ownership is equivalent to assessing the status of social capital.

In order to assess the level of cattle ownership in the 1990s, the average number of heads of cattle owned by different wealth groups in 1988, 1993, and 1998 are presented in Table 2. These data may not reflect the real

20. David Keen, *The Benefits of Famine: A political economy of famine in south-west Sudan, 1983–1989* (Princeton University Press, Princeton, NJ, 1994).

21. Lienhardt, *Divinity and Experience*, p. 27.

Table 3. Cattle looted and household initial wealth status

Research communities	Average number of cattle looted from households in the 1990s			
	Initial level of household wealth status			
	Poor	Middle	Non-poor	Total
Abyei	15.7	26.4	68.0	38.5
Gogrial	30.0	47.8	57.5	47.7

average numbers of cattle owned by households, but instead reflect the trend. This is due to a general tendency among pastoralists not to reveal the actual number of stock owned. It is clear that while in Abyei the level of household cattle ownership in 1998 declined by almost 60 percent from the 1988 level, households in Gogrial experienced a decline of about 90 percent. This decline was higher during the 1993–8 period than between 1988 and 1993, particularly in Gogrial when endogenous counter-insurgency warfare intensified. By 1998, when famine occurred, the households in Gogrial had the lowest average cattle ownership – just one-tenth of the average in 1988. Interestingly, the average household in Gogrial, which in 1988 owned more cattle than the average household in Abyei, had its cattle ownership in 1998 reduced to one-third of the average in Abyei area.

Also highly apparent are the variations in the trends of cattle ownership within and across households. While the level of cattle ownership declined by 65 percent between 1988 and 1998 among poor households in Abyei, the non-poor households experienced almost the same level of decline. In Gogrial, non-poor households experienced 93 percent decline from 1988 to 1998, while the poor households experienced 72 percent decline during the same period. Overall, the Gogrial households experienced a greater decline during the 1988–98 period.

This rapid depletion of cattle ownership in the 1990s, shown in Table 3, was a result of looting by government-supported militias. While households in Gogrial had higher average cattle losses than those in Abyei, non-poor households experienced cattle losses twice those of poor households in Gogrial, and four times those of poor households in Abyei. It is apparent that the counter-insurgency warfare in the 1990s deliberately targeted the cattle as the asset base and main source of livelihood of the Dinka.

This rapid decline in level of cattle ownership in the 1990s in Gogrial clearly shows that the asset base of non-poor households was more sensitive to endogenous counter-insurgency warfare. Within the non-poor households exposed to counter-insurgency warfare, the asset base of those exposed to endogenous counter-insurgency was more sensitive than that

Table 4. Level of kinship support in the 1990s

Research communities	Kinship support in the 1990s compared with pre-war periods	Initial level of household wealth status			
		Poor	Middle	Non-Poor	Total
Abyei	Decreased	9 (31%)	43 (38%)	31 (45%)	83 (39%)
	The same	10 (34%)	26 (23%)	14 (20%)	50 (24%)
	Increased	10 (35%)	44 (39%)	24 (35%)	78 (37%)
Gogrial	Decreased	34 (90%)	94 (94%)	65 (97%)	193 (94%)
	The same	3 (8%)	3 (3%)	1 (2%)	7 (4%)
	Increased	3 (8%)	3 (3%)	1 (1%)	5 (2%)

of those exposed to exogenous counter-insurgency warfare. On the basis of the status of cattle ownership during civil war, one can generally conclude that the level of social capital declined during civil war, particularly among the communities exposed to endogenous counter-insurgency warfare.

Level of trust

The level of kinship support is used as a proxy for the level and status of social capital, particularly trust and cooperation within the research communities and with their neighbouring communities. Using the household survey data, the results as presented in Table 4 show that while about 37 percent of households in Abyei experienced an increase in kinship support, only 2 percent of households in Gogrial noticed an increase. An exceptionally high and significant percentage of households (94 percent) in Gogrial experienced a decline in the level of kinship support in the 1990s.

It is clear that the level of trust and cooperation within the households exposed to endogenous counter-insurgency warfare (Gogrial) eroded considerably during the 1990s. Such a decline in the stock of social capital in Gogrial was significantly felt by the non-poor households, who were the immediate targets and victims. One elderly key informant in Gogrial described the mistrust and bitter relations that existed in the 1990s when his own nephew, who had joined the government Dinka militias, described his relation with his elders as similar to the relationship between an eagle and its offspring. The Dinka believe that eagles (*kuei*) delay having offspring until they become elderly as their offspring kill their parents immediately when they are grown up.

Besides the climate of distrust created by endogenous counter-insurgency warfare, the profound depletion of cattle, particularly among the non-poor households greatly affected kinship support. In fact, the Dinka way of life (*cieng*) did not change, but changes to their asset base prevented people from providing kinship support. In comparing the level of death during

Table 5. Level of social claims settlement in traditional courts in the 1990s

Research communities	Whether household was involved in court settlement in 1998?	Initial level of household wealth status			
		Poor	Middle	Non-Poor	Total
Abyei	No	25 (86%)	91 (81%)	58 (84%)	174 (83%)
	Yes	4 (14%)	22 (19%)	11 (16%)	37 (17%)
Gogrial	No	24 (63%)	67 (67%)	27 (40%)	118 (58%)
	Yes	14 (37%)	33 (33%)	40 (60%)	87 (42%)

the famine of 1988 with that of 1998, people did not die in the same numbers in 1988 as the non-poor households had livestock that enabled them to help poor households.²² On the other hand, the households in Abyei did not experience a significant decline in the level of social capital in the 1990s, as the common threat from exogenous counter-insurgency warfare strengthened their internal cohesiveness, trust and cooperation. This suggests that the nature of counter-insurgency warfare explains much about the performance and status of social capital in the context of civil war.

The level of distrust

Another way of assessing the level of trust and cooperation is to use the frequency with which people resorted to courts to settle their claims during the critical period of famine in 1998. However, resorting to courts is not necessarily a sign of failed cooperation but is also an integral aspect of Dinka social and economic life. During the famine of 1998, the Dinka communities set up famine courts (*luok cok*) to enforce 'social contracts'.²³ This indirectly captures the level of mistrust and poor cooperation, as compared to the ideal situation where people voluntarily support each other, or fulfil claims without resorting to the courts or a third party. The data from the household survey in Table 5 clearly show that a high percentage of households (42 percent) resorted to traditional courts to settle their social claims in Gogrial during the famine of 1998. These social claims include entrusted cattle (*kuei*), kinship assistance, and unpaid bride wealth.

In Abyei, the percentage of households who resorted to courts or to a third party to settle their claims in the 1990s was only 17 percent, which is lower than the level in Gogrial. When looking closely at the variation within households, poor and non-poor households in Abyei experienced

22. Luka Deng, 'Famine in the Sudan – causes, preparedness and response: a political, social and economic analysis of the 1998 Bahr el Ghazal famine' (IDS Discussion Paper 369, Institute of Development Studies, University of Sussex, 1999).

23. *Ibid.*

a similar pattern of court settlements, with non-poor households having a slightly higher percentage. Interestingly, the number of non-poor households subjected to court settlements in Gogrial was significantly higher than that of poor households. This could reflect the rapid depletion of cattle that was experienced more by non-poor households than by poor households, and pushed them to pursue their claims in courts during the famine in 1998. This finding again reaffirms that the level of trust and cooperation is more dented among households exposed to endogenous counter-insurgency warfare than among those exposed to exogenous counter-insurgency warfare.

Household relations and cooperation

Over time it has been accepted that the structure of the household is an important asset that enhances the ability of households to adjust to changes in the external environment.²⁴ In the context of the Dinka community, the structure of the household, particularly the evolution of the household structure from 'nuclear' to 'extended', reflects important informal reciprocal networks of kinship support, cooperation, and the social safety net. Thus the structure of households could also be used as a proxy to assess the level of household cooperation and relations. The concepts of household and family in the polygamous Dinka society are complex and intertwined. Each family (*baai*), referring to a residence, consists of a number of wives with their children (nuclear), which is known as *hoon thok* (household), which implicitly refers to shared consumption. The extended household refers to a household that has additional members besides its immediate members.

The data from household surveys have been used to trace the evolution in the structure of households in the 1990s; the results as provided in Table 6 clearly show a considerable and interesting change in the structure of households. The trend shows an increasing number of extended households in the 1990s in Abyei, and a decreasing number of extended households in Gogrial. This finding shows that as a result of intensification of endogenous counter-insurgency warfare the level of cooperation declined, as households started looking after their immediate household members only.

On the other hand, the households in Abyei, with increased common threats from Arab militias in the 1990s, became more cooperative and pooled their resources effectively by forming extended households and taking care of the surviving victims of civil war. This increase in the number of

24. Caroline Moser, 'The asset vulnerability framework: reassessing urban poverty reduction strategies', *World Development* 26, 1 (1998), pp. 1–19.

Table 6. Household structure in the 1990s

Research communities	Initial household wealth status	Household structure			
		1988		1990s	
		Nuclear	Extended	Nuclear	Extended
Abyei	Poor	19 (66%)	10 (34%)	16 (55%)	13 (45%)
	Middle	64 (57%)	49 (43%)	55 (49%)	58 (51%)
	Non-Poor	22 (32%)	47 (68%)	20 (29%)	49 (71%)
	Total	105 (50%)	106 (50%)	91 (43%)	120 (57%)
Gogrial	Poor	17 (45%)	21 (55%)	35 (92%)	3 (8%)
	Middle	54 (54%)	46 (46%)	87 (87%)	13 (13%)
	Non-Poor	8 (12%)	59 (88%)	53 (79%)	14 (21%)
	Total	79 (39%)	126 (61%)	175 (85%)	30 (15%)

extended households could also be attributed to the rising numbers of widows and orphans. The results of household surveys show a considerable increase in the number of households headed by women during civil war. The emergence of female-headed households in the 1990s was a result of husbands either being soldiers sent far away from their families or dying as a result of civil war.

Community cooperation

Besides the level of cooperation and relations at household level, collective community actions to confront and adjust to changes are equally important for assessing the status of social capital at community level. During the 1990s, the communities in Abyei became more reliant on mutual-labour farming assistance than before the civil war. Unlike farming during the pre-conflict period, in the 1990s the main livelihood activity in Abyei, crop production, became increasingly performed collectively through the traditional mutual-labour assistance system known as *akud*.

This traditional practice involves a regular system, whereby each household within the community invites members of the community to perform a certain activity on its farm; in return, the inviting household will provide food and local beer. While such a system was practised optionally in a limited way during the weeding period in normal times, the practice not only increased considerably but became almost obligatory in the 1990s, and covered almost all phases of farming, particularly harvest and storage, because households found it difficult to perform farming activities alone, when also faced with raids. Failure of some households to participate in *akud* would result in social isolation and exclusion.

The households exposed to counter-insurgency warfare in the 1990s changed their traditional storage system to secretive underground storage that became very expensive. Interestingly, the adoption of *akud* in the underground storage of sorghum in Abyei shows the high level of mutual trust and confidence among households. There were very limited and insignificant reported cases of sorghum theft by individuals, because any breach of codes of confidentiality regarding the underground storage was severely punished. This high level of mutual assistance, confidence and trust contributed to a significant reduction in the incidence of crimes in Abyei. A local policeman during my fieldwork interview with him complained about this decline in crime in Abyei:

Look at this prison (*seigen*), it has been empty since last season and I became without a job . . . everyone here seems to know all laws and abide by them . . . I really wonder about my future here as a policeman.²⁵

Apparently this practice of mutual-labour assistance, as necessitated by the Arab militia counter-insurgency warfare, has not only increased crop production, but also renewed generalized reciprocity and egalitarian values among the Dinka community in Abyei. Besides strengthening kinship support and providing livelihoods, the spirit and practice of *akud* has also been used and extended by the community of Abyei to mobilize youth (*boil*) to provide a communal security force to protect it against Arab militia raids. In Gogrial area such mutual-labour assistance practices used to exist in the pre-war period and totally vanished during the 1990s as a result of the activities of Dinka militias that supplanted trust with mistrust and cooperation with hatred.

Marriages and extending social ties

Marriage and extending social ties are another means of supplying social capital and expanding the risk pool for informal risk sharing and insurance arrangements. There is even a tendency to consider family arrangements such as marriage to be more akin to 'hedging' than 'insurance', as such arrangements are based on risk exchange.²⁶ Besides its apparent role as spatial diversification, insurance, and hedging strategies, marriage provides social status and cohesion that are important determinants of household well-being.

Generally Dinka society is polygamous, even among those who have adopted Christianity. The Dinka fabric of social relations and the basis of

25. Interview, policeman, Agok, Abyei Area, May 2000.

26. P. Bevan and S. Joireman, 'The perils of measuring poverty: identifying the "poor" in rural Ethiopia', *Oxford Development Studies* 25, 3 (1997), pp. 315–43.

Table 7. Level of marriage in the 1990s

Research communities	Number of wives in the 1990s compared with pre-war periods	Initial level of household wealth status			
		Poor	Middle	Non-Poor	Total
Abyei	Decreased	3 (10%)	5 (4%)	3 (4%)	11 (5%)
	The same	17 (59%)	57 (51%)	33 (48%)	107 (51%)
	Increased	9 (31%)	51 (45%)	33 (48%)	93 (44%)
Gogrial	Decreased	7 (18%)	5 (5%)	6 (9%)	18 (9%)
	The same	29 (77%)	95 (95%)	60 (90%)	184 (90%)
	Increased	2 (5%)	0 (0%)	1 (1%)	3 (1%)

family are founded on marriage and bride wealth.²⁷ One important aspect of Dinka marriage is that it is not allowed within lineage (*alaraan*) or within friendship (*maath*). Interestingly the word ‘marriage’ (*ruai*) in Dinka is synonymous with the word ‘relationship’ (*ruai*), as Dinka see marriage in a wider context of social relationships.

Marriage in Dinka society is an endless process that involves a series of claims, counter-claims, obligations and transfers of cattle between the groom’s and bride’s families and their extended families – a wave of obligation that usually engulfs the entire lineage and communities. The initial bride wealth (*hok ruai*) is a collective and legally enforced standardized contribution of cattle from the groom’s family, his mother’s family, his in-laws and friends. On the other hand, the bride’s family upon receiving the bride wealth has a social obligation to pay (*arueth*), from their own cattle, to the groom’s family to confirm mutual relationships and consolidate the social status and position of their daughter. The family of the groom does not usually urge immediate payment of *arueth*, which is loosely paid over a longer period, particularly during times of high need. The process of the payment of bride wealth (*hok ruai*) and *arueth* is also seen as an effective *ex ante* risk management strategy. These characteristics of marriage in Dinka society make marriage an important and effective means of building and supplying social capital.

In order to assess the level of marriage during the 1990s, a question in the household survey specifically asked households to compare the number of wives in a family in the 1990s with the pre-war periods, and the responses are presented in Table 7. It is clear from Table 7 that the families exposed to exogenous counter-insurgency warfare (Abyei) had a significant increase (44 percent) in the level of marriage in the 1990s, while

27. Deng, *Tradition and Modernization*.

the families in Gogrial did not experience an increase (1 percent) in the level of marriage. The families from Gogrial did not have more marriages during the 1990s, partly because of the depletion of their livestock and largely because of the nature of counter-insurgency that created division and mistrust among the communities.

This finding of higher levels of marriage among families exposed to exogenous counter-insurgency than among those exposed to endogenous counter-insurgency shows again that the nature of counter-insurgency warfare plays an important role in the choice of livelihood strategies adopted during civil war. While the external and common threat from Arab militias made the community of Abyei strengthen their social ties through marriage, the internal conflict engineered by Dinka militias among the community of Gogrial contributed to the disintegration and weakening of social ties. This increasing number of wives in Abyei could also be seen in the context of the wider traditional values of Dinka society in which the levirate is prominent, as is the possibility of marrying wives in the names of deceased men.

It is generally argued that informal social insurance arrangements such as marriage are not effective when entire communities are exposed to the same risk. While this argument may be true in the case of households exposed to endogenous counter-insurgency warfare, it may not be strong in the case of households exposed to exogenous counter-insurgency warfare. In the 1990s families in Abyei area increasingly married 'outside', in particular to members of communities in Twic area, which was less exposed to Arab militia attacks.

The community survey in Abyei area reveals that the proportion of men who married outside their community during the pre-conflict period was insignificant, and was mainly confined to chiefs and rich families. During the civil war in the 1990s, the level of marriage outside the Abyei community tripled. Twic area became a safe haven for the people of Abyei in which they could take refuge (especially children and elderly) and safeguard their livestock prior to Arab militia raids. One key informant during the community survey said that:

During this war we have realized the importance of marrying outside, particularly to the Dinka Twic, as it has provided us with new social ties (*ruai*) that allow us easy access to new grazing land and refuge for our children and women.²⁸

Status of poverty in the 1990s

The level of poverty, as one of the major outcomes of the social risk management strategies adopted by households to minimize the effects of civil

28. Interview, leader of cattle camp (*majokwut*), Mayen Abun, Twic Area, May 2000.

Table 8. Poverty dynamics: transition and movement in the 1990s

Research communities	Initial household wealth status	Level of household wealth status in the 1990s		
		Non-poor	Middle	Poor
Abyei	Non-poor	14 (6.6%)	44 (20.9%)	11 (5.2%)
	Middle	0 (0%)	81 (38.4%)	32 (15.2%)
	Poor	0 (0%)	3 (1.4%)	26 (12.3%)
	Chi-square = 78.64	Kendall's tau-b = 0.457	N = 211	I = 0.573
Gogrial	Non-poor	0 (0%)	8 (3.9%)	59 (28.8%)
	Middle	0 (0%)	4 (2%)	96 (46.8%)
	Poor	0 (0%)	2 (1%)	36 (17.5%)
	Chi-square = 4.15	Kendall's tau-b = 0.111	N = 205	I = 0.195

war, is used as a proxy for the effectiveness of social capital during civil war. In assessing the status of poverty during the 1990s, the focus has been on the dynamics of transition and movement within and across various wealth groups.²⁹ Given the lack of panel data, I relied in the fieldwork on a household's perception of its wealth status, which in turn has certain methodological implications. Francis Deng argues that subjective cultural factors may play a vital role in the way people view their wealth status.³⁰ As households assessed their wealth status in relation to the status of wealth in the entire community, it is natural that the perception of wealth status changes over time, particularly during civil war. The level of cattle ownership as proxy indicator for wealth status, as shown in Table 2, has changed over time, reaching its lowest level during famine in 1998.

In order to assess the number of households that moved in or out of the poor group in the 1990s, the data relating to the initial level of household wealth in the pre-war periods are cross-tabulated with their wealth status in the 1990s, as shown in Table 8. The personal wealth ranking measure is generated by asking household heads to describe the wealth status of their households both before and during war.³¹ It is clear from Table 8 that there was a considerable increase in the level of poverty in both areas in the 1990s, but that the increase was higher among the non-poor households and households exposed to endogenous counter-insurgency in Gogrial.

29. B. Baulch and N. McCulloch, 'Being poor and becoming poor: poverty status and poverty transitions in rural Pakistan' (IDS Working Paper No. 79, Institute of Development Studies, University of Sussex, 1998).

30. Francis Deng, 'The cow and the thing called "what": Dinka cultural perspectives on wealth and poverty', *Journal of International Affairs* 52 (1998), pp. 101-30.

31. Bevan and Joireman, 'The perils of measuring poverty', p. 324.

For example, while in Abyei area only 6.6 percent of households were non-poor in both pre-war periods and in the 1990s, approximately 38 percent and 12 percent of households were respectively moderately poor and poor in both periods. No household that either moved out of moderate poverty or escaped the poverty group in Abyei area in the 1990s. On the contrary, over 26 percent ($20.9 + 5.2$) of the initially non-poor households fell into either the moderate (20.9 percent) or poor (5.2 percent) groups. Finally, while less than 2 percent of the initially poor households had improved their status to moderately poor in the 1990s, just over 15 percent of the initially moderately poor households moved into the poor group in the 1990s.

The reported chi-square value (78.64) and Kendall's tau-b (0.457) statistic tests both confirmed the hypothesis that wealth status in Abyei area in the pre-war periods is interdependent with wealth status during the 1990s. This interdependence of wealth status in both periods is further supported by immobility measure (I),³² as over 57 percent of households did not change their wealth status in the 1990s, as shown in Table 8. Interestingly, the non-poor sample households experienced the lowest immobility (6.6) in comparison to other wealth categories, and this clearly shows the apparent high mobility experienced by the non-poor households in the 1990s.

In Gogrial area, there was no single sample household that remained non-poor in both the pre-war period and the 1990s, and only 2 percent and 17.5 percent of households were respectively middle and poor groups in both periods, as shown in Table 8. During the 1990s, there was no household that escaped either from the moderately poor group or the poor group. In contrast, just over 32 percent of initially non-poor households fell into either the moderately poor group (3.9 percent) or poor group (28.8 percent). In addition, while over 46 percent of households initially in the moderate poor group moved to the poor group in the 1990s, only 1 percent of initially poor households had improved their status to the moderately poor group. It is not surprising that the reported chi-square (4.15) and Kendall's tau-b (0.111) statistic tests confirmed the null hypothesis that wealth status in Gogrial area in the 1990s is independent of pre-war wealth status. This is further supported by the low level of the immobility index (0.195) with non-poor and moderately poor households experiencing com-

32. Immobility Measure (I) is used to compare the persistence of different dimensions of poverty and is calculated as the sum of the cell frequencies (trace (M)) along the leading diagonal of the square transition matrix (M) divided by the number of individuals in the panel (N). The measure varies between zero, when there is complete mobility, and one, when there is complete immobility. For more information about the use of this measure, see C. Scott, and J. Litchfield, 'Inequality, mobility and the determinants of income among the rural poor in Chile, 1968-1986', (Discussion Paper 53, Development Economics Research Programme, London School of Economics, London, 1994).

plete mobility ($I = 0$ and 0.012 respectively) to the poor group during the 1990s.

It is apparent from Table 8 that while there was increased incidence of poverty during civil war, the households exposed to endogenous counter-insurgency warfare suffered more. On the basis of the hazard model, it can be concluded that households exposed to endogenous counter-insurgency warfare were more likely to enter poverty than were those households exposed to exogenous counter-insurgency warfare.³³ This is attributed partially to the nature of counter-insurgency that weakened the effectiveness of livelihood strategies, including investment in social capital, that were adopted by the households exposed to endogenous counter-insurgency warfare.

Conclusion

This article provides a basis for assessing the relationship between civil war and social capital. Taking investment in social capital as one of the risk mitigation strategies, the results of various measures of social capital indicate significant differences between and among households exposed to exogenous and endogenous counter-insurgency. The households exposed to exogenous counter-insurgency tend to have higher levels of social capital stock than do those households exposed to endogenous counter-insurgency warfare. With increasing external common threats from Arab militias, the households in Abyei have become more cohesive and cooperative than have those households exposed to endogenous counter-insurgency warfare.

These findings suggest that the nature of counter-insurgency warfare explains much of the differential variation in the level and status of social capital during civil war. Specifically, the nature of endogenous counter-insurgency warfare, as experienced by households in Gogrial in the 1990s, created a climate of mistrust and turned the community against itself, which dented cooperation and weakened social capital.

These empirical findings clearly question any simplistic assumption that conflict erodes social capital. While it is true that certain types of social capital have been a casualty of civil war, particularly among communities exposed to endogenous counter-insurgency warfare, there has been deepening and strengthening of bonding social capital among communities exposed to exogenous counter-insurgency warfare. This important finding has made it clear that 'fine-grained' social analysis in a 'war zone' is best

33. For further elaboration of this argument, see Luka Deng, 'Are non-poor always less vulnerable? The case of households exposed to protracted civil war in southern Sudan', *Disasters* 32, 3 (2008), pp. 377–98.

understood in its wider context, within which social, economic, and political processes interact.

The apparent variation in the level and status of social capital across research communities echoes the previously cited findings that highlight the important role played by the nature and characteristics of counter-insurgency warfare in understanding household risk-related behaviours, including investment in social capital. A better understanding of the determinants of the livelihood strategies adopted by households to confront any risk requires a thorough understanding of the characteristics of risk events to which households are exposed. The comparative analysis of the level and status of social capital among communities exposed to different types of counter-insurgency warfare in southern Sudan has again challenged any generalization, and clearly pointed to complexity and context-specificity.

This article has focused only on some normative and bonding aspects of social capital during civil war, and other aspects of social capital merit further research. In particular, understanding structural social capital that involves trust in rebel institutions (as a *de facto* state) and other wider social institutions, such as traditional structure, civil society organizations and non-governmental organizations, will shed more light on the status of social capital during civil war. For example in the context of southern Sudan, the traditional leaders of Nuer and Dinka communities, with assistance from church leaders, initiated during civil war their own reconciliation process that resulted in a people-to-people peace agreement (known as the Wunlit Agreement). This Agreement contributed to the unification of different factions of the SPLM, which subsequently strengthened the position of SPLM when signing the Comprehensive Peace Agreement in 2005 with the Government of Sudan.

Another important aspect of social capital that merits further research in the context of civil war is the bridging aspect of social capital, particularly inter-community solidarity and broader societal networks, such as the relations between Arab nomads, Nuer, Dinka, and other communities. The current upsurge of tribal conflict in southern Sudan is better explained by inadequate efforts to supply social capital to heal the bitter wounds experienced during civil war. As the normative analysis of social capital may downplay its perverse outcomes, future research on social capital requires the examination not only of the amount of social capital but also of its quality.

As the case studies in this article have demonstrated, social capital has been a casualty of civil war in certain contexts and strengthened and deepened in other contexts; it is likely that in the midst of civil war there could be opportunities to enhance social capital. In most cases of civil war, the humanitarian agencies, with a limited understanding of community-level social dynamics and relations and with an inherent assumption of social capital as a casualty of conflict, tend to focus on engineering the supply

of social capital through indigenous NGOs and civic organizations. In the case of southern Sudan, the humanitarian agencies, guided by the simplistic assumption that conflict undermines social capital, embarked on engineering civil society through the support of handpicked indigenous NGOs. Besides encouraging pro-peace or anti-rebel NGOs in southern Sudan, the humanitarian agencies aimed at downsizing the institutions of the rebels, seen as anti-social capital formation, rather than engaging with them to promote good governance during civil war. As remarked by Edwards, focusing on a number of NGOs may be the easiest way in which to influence social capital in the short run, but in the long run it may not be especially important.³⁴

As this article has focused on the form of social capital, other aspects of social capital, such as its norms, are equally important to assess in the context of civil war. The variation in the status and investment in social capital among households exposed to counter-insurgency warfare indicates the need to map out the status of social capital, which will help in identifying the areas of intervention that may create an enabling environment for social capital formation. For example, in the case of Abyei, where intra-community solidarity has been strengthened during civil war, the appropriate intervention would be to focus on inter-community solidarity, particularly with their Arab neighbours, while consolidating intra-community solidarity.

Gogrial, where there has been a rapid depletion of social capital, may require a different mix of interventions that will focus increasingly on intra-community solidarity. The new government in Southern Sudan will have to create an enabling social environment where a comprehensive reconciliation and healing process can be initiated between and among various communities to address hidden tensions and social capital deficiency. This will certainly contribute towards increasing the much-needed supply of social capital in post-conflict southern Sudan.

34. Michael Edwards, 'Enthusiasts, tacticians and sceptics: the World Bank, civil society and social capital' (research paper, Social Capital, Governance and Civil Society Unit, Ford Foundation, 1999).