

Functions of Violence Revisited

Synergies of Greed *and* Grievance in Sri Lanka

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Abstract

The current debate among political economists on the incidence of civil wars is dominated by the dichotomy of two schools of thought: greed versus grievance. While scholars of the grievance school largely argue that violent conflicts and civil wars occur because of resource scarcity, inequality, exclusion and poverty, the greed argument contends that it is the ability to extract wealth through violence and war that encourages potential rebels to actually take arms and go for rebellion. This paper argues that it is not so much *either* greed *or* grievance that are at the heart of the matter, but rather *both* aspects play a role: The essence of institutional change that takes place in civil wars can better be understood when analyzing greed and grievance and the interaction and synergies between both rather than stressing the dichotomy of greed versus grievances. We utilize narratives from the civil war of Sri Lanka and model a game that involves two layers of actors: armed (rebels and army) and civilian actors (farmers of different ethnicities). In this game, armed actors have to balance out a mixed strategy of greed and grievance. On the one hand, they benefit from ongoing warfare by extracting economic rents from local communities (greed); on the other hand, they need to keep their reputation as 'political' fighters for a just cause in place (grievance).

I Violence and the Study of Social Conflict

Political economists have disagreed on the question whether the incidence and protracted duration of the 'new' civil wars (Kaldor 1999)² could be explained in terms of greed *or* grievance, leading to a dichotomous debate of two competing schools of thought. While scholars of the grievance school, being the more traditional argument in the conflict resolution literature, largely argue that violent conflicts and civil wars occur because of resource

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² The term 'new' wars is subject to dispute. Kalvynas (2001), for example, argues that many patterns of new wars are not that new and that the term 'new' war carries the inherent danger of depoliticizing violent conflict, when reduced to warfare and opportunities for looting alone.

scarcity, inequality, exclusion and poverty (Azar 1990; Homer-Dixon 1999; Stewart 2000), the greed argument, most prominently put forward by Paul Collier, contends that it is the ability to extract wealth through violence and war that encourages potential rebels to actually take arms and go for rebellion. The latter argument has been substantiated by cross-country econometric analysis and by game theoretical modeling of warlord competition, looting models and the like (e.g. Azam and Hoeffler 2002; Berdale and Malone 2000; Collier 2000; Collier and Hoeffler 2001; De Soysa 2000; 2002a,b; Skaperdas 2002; Fearon and Laitin 2003).³

This paper argues that it is not so much *either* greed *or* grievance that are at the heart of the matter, but rather how *both* interact.⁴ We criticize that some of the models utilized to illustrate the greed argument may have been overly simplistic in that they (1) focus on material gains and self-interest as the sole driving force behind the evolution of rebel movements (developing game theoretic modeling of rebels' choices whether to rebel or not), and that they (2) did only involve combatants as actors while neglecting that civilians can also be players in the game.

For the study of violent conflict, it is essential to understand the relation between choice and emotion, especially how emotions affect the rationality of choice, and thus, how grievances and greed interact. When we examine how emotions affect choice, it is essential to differentiate various levels of actors, e.g. civilians, combatants, rebel leaders and their particular positions. How sincere are their emotional feelings? This is the main underlying argument for the symbiotic relation between greed and grievances. While some actors may feel sincere anger, fear, or shame (grievance), other actors may misuse these emotions for material gains (greed). The latter behavior does, however, not mean that the emotions felt by the first did not matter. Again, it is reasonable to make a distinction: while actors may attempt

³ See also the papers in the edited volumes of *Journal of Conflict Resolution* 46 (1) (February 2002) and *Journal of International Development*, 15 (4) (2003). The latter compiles a number of papers that critically address the greed versus grievance debate and search for broader approaches to understand civil war and peace building.

⁴ For a similar argument, see Goodhand (2003).

to impose emotions on others, emotions are largely unvoluntarily undergone rather than actively chosen, i.e. events rather than actions (Elster 1998, 1999).

This paper models the synergies of greed and grievance in civil wars by analyzing local resource conflicts in the war zones of Sri Lanka. In order to understand the linkages and synergies between greed and grievance, we have to model a game that involves two layers of actors: armed actors (rebels and army) and civilian actors (farmers of different ethnicities). In ethnic conflicts, civilians will seek alliances with the armed actors of their ethnic group and use them as patrons to enforce or establish access to resources in their favour. In their decision whether to support these claims or not, armed actors have to balance out a mixed strategy of greed and grievance or between what we will refer to as *greed* (war economy) and *pride* (political fighting). On the one hand, they benefit from ongoing local conflicts by extracting economic rents from local communities (greed); on the other hand, they want to keep their pride as 'political' fighters (grievance), which is also important to gain support among the civilian population.

Combatants in civil wars thus face a trade off or tension between greed and pride. This tension affects the 'way in which decisions are made'. We demonstrate how grievances and pride are center-stage at the beginning of civil war, and how greed becomes more prominent in the further advance of warfare. Thus, according to our model and argument, political factors, pride, grievances and emotions are center-stage in triggering warfare, but pride (or grievance) might be bailed out by greed subsequently. Thus, grievance can explain the eruption of political violence, while greed is a necessity to prolong warfare.

In our analytic narrative from Sri Lanka⁵, we explore and reason on the motives, beliefs, desires as well as the action resources for an actor to take a decision for action. Elster (1999:

⁵ The analytic narratives approach attempts to address the central problem how to develop systematic explanations based on case studies (Bates et al. 1998) and combines deductive and inductive research methods: the studies in their book purposely jump back and forward between theory and empirical inquiry stimulating each other. The analytic narratives approach addresses several issues: First, how can the knowledge of historians, anthropologists and all those who are engaged in in-depth case studies and possess a deep understanding of a

162) argues that dissonance theory is more realistic than a simple cost-benefit model in that it views individuals as making hard choices on the basis of *reason*. This can lead to tensions between different states of emotions and feelings. In our model, we will explore the tension involving decision making among rebel and army leaders between 'greed' and 'pride'. Pride arises from fighting, which determines the economic basis for greed. Greed, by contrast, can be satisfied through the war economy, but instills feelings of shame among rebels and army (because they do not do their 'job' properly, as expected from them). There is thus an inherent tension (or trade off) between pride and greed in protracted, low-intensity wars.

The structure of the paper is as follows. Part II presents background information on the Sri Lankan situation. Section II.1. describes the larger conflict while section II.2. presents empirical evidence on two possible conflict paths emerging at the local level in the course of the civil war. In part III.1 of the paper a game-theoretic model is developed which captures the main decisions taken by armed actors and civilians. The model is used in section III.2 to infer conditions on model parameters which would explain the emergence of the specific conflict paths observed in reality. This analysis leads us to hypotheses on how the relative importance of greed versus grievances changes over time as the conflict progresses which then are discussed in light of case study evidence. Part IV concludes.

II Explaining Violent Conflict in Sri Lanka

II.1 The Larger Conflict

The fundamental political issue at stake in the civil war of Sri Lanka is the grievance between the Tamil minority and the Sinhala-Buddhist majority which has escalated into political violence between a Tamil rebel group, the Liberation Tigers of Tamil Eelam (LTTE),

place and time, contribute to and make use of theory. Second, how might they best employ such data to create and test theories that may apply more generally? Third, what is the contribution of formal theory and what can be gained from employing formalizing verbal accounts?

and the largely Sinhalese armed forces.⁶ In the war-affected, multi-ethnic east of Sri Lanka, competing claims and disputes over land exist between the Tamils and the Sinhala, the Tamils and the Muslims, as well as the Sinhala and the Muslims. These rival claims to land, often by different ethnic groups, are rooted in the memory and perception in the context of the politics of ethnicity and colonisation in Sri Lanka (Mallick 1998; Moore 1989; Peebles 1990; Peiris 1991, 1994). Many Tamils have perceived the expansion of Sinhala settlements in the northeast as an act of political and geographic 'colonisation of traditional Tamil areas'. The Sinhala saw it as an expansion into areas that they had abandoned in ancient times. In the context of the ethnicised conflict, the politicisation of land use rights, vested interests of armed actors and the link between land use rights and the causes of conflict make it difficult for administrators and decision-makers to enforce the rule of law.

In the aftermath of the 1983 pogrom against Tamil civilians in Colombo and other places of Sri Lanka, influential bodies within the Sri Lankan government pressed for a more direct and militarized settlement in the northeast to undermine the territorial claims of the Tamil militant groups. The strategy was to settle Sinhalese farmers from low social background (and even prisoners and criminals) into strategic areas of the northeast, predominantly at the divide of the north and the east in the Trincomalee and Mullaithivu districts. This strategy was partly openly, partly coveredly pursued by powerful politicians in the then ruling UNP regime. Based on the Prevention of Terrorism Act (PTA) from 1977 and the new constitution giving wideranging powers to the president, police, army and politicians could surcompass the rule of law. Anthropological studies have shown how this led to a gradual militarization of border villages in the east (Flugerod 2003; Thangarajah 2003).

⁶ It is essential to understand the ethnicised conflict in Sri Lanka as a multi-dimensional phenomenon, or a conflict cocktail. Social and political cleavages occur at various levels along many lines of dissent. In addition to the civil war between LTTE and the Sinhalese state, there are other social, political and ethnic cleavages between and among the three major communal groups (Sinhala, Tamils and Muslims), e.g. clashes between Muslim and Tamil communities in the East, Sinhala-Muslim troubles in the central highlands, inner-Sinhalese youth insurrections. More detailed accounts of the history, structural causes and perceptions of political violence in Sri Lanka can be found in: De Silva 1998; Mayer et al. 2003; Rotberg 1999; Spencer 1990; Tambiah 1986.

Border villages were those Sinhalese settlements of recent origins that were instituted in the hinterland of Tamil settlements or, as in the case of Weli Oya, constructed upon the villages of expelled Tamil settlers.

II.2 Local Conflict Paths

Hoole (2001) has compiled large amounts of evidence that document the account of attacks and counterattacks that happened between 1984-86 between the most prominent Tamil militant group LTTE (Liberation Tigers of Tamil Eelam) and the armed forces of the Sinhala state, in the east of Sri Lanka, in particular in the Trincomalee district. The army introduced what Thangarajah (2003) has labelled as 'frontiermen': Politically motivated and ideologized Sinhala farmers were settled in new irrigation schemes intruding into traditional Tamil areas and receiving weaponry from the state security forces to fight it out with the rebels. Thus, Tamil farmers perceived themselves as a threatened group, and in some instances, Tamil civilians were also actively expelled from their villages (Hoole 2001).

In this context, we could find a type of escalation that can be subsumed in a simple game theoretical form below: Sinhala settlers intrude into Tamil hinterland, or we could say they encroach 'space' and resources to which Tamils believe to have customary rights. In some cases, Sinhala farmers, under the protection of police and army, even took land directly away from Tamil civilians (as has happened in the Weli Oya scheme for example). The Tamil rebels countered this 'provocation' with an attack on and killing of Sinhala frontiermen. Armed forces and special police forces then retaliated against Tamil civilians and adjacent Tamil villages. Hoole (2001) has documented a large number of these attacks that seemingly followed this line of logic again and again, and reference to this militarization and escalation of settlements in the east has been made in much of the literature cited above.

We will contrast this story of escalation with a specific case study from Trincomalee district that was explored in the late 1990s. At that time, the civil war was ongoing⁷ and the east remained a theatre of guerilla warfare with the Tamil tigers controlling large parts of the rural areas in Trincomalee and Batticaloa districts, particularly in the nights. The army had only a few remaining strongholds in the night, such as the bigger towns. However, during daylight, they were in control of a considerable part of the Trincomalee district (less so in Batticaloa). This allowed a hybrid state of existence arising in these areas: while the state, its administration, and the army kept a visible presence during the day in large parts of the Trincomalee district (with the exception of the so-called 'uncleared areas' that were under full control of the LTTE), during the night, the LTTE moved around in almost all parts of the district, intimidating opponents, collecting taxes and occasionally attacking police and army camps.

In this institutional set-up, we find a small irrigation tank, called Menkamam. This is an ancient tank used by Tamil farmers for irrigating their fields. This small tank is embedded within settlement patterns that are part of a large-scale irrigation scheme: the Allai Extension Scheme. Allai started in the 1950s and brought a considerable number of Sinhala settlers into the area, while some land was also given to Tamil and Muslim villagers from the adjacent traditional villages. Menkamam, being such a traditional village, is located side by side with a Sinhala settlement, Dehiwatte, that was erected under the Allai Extension Scheme. Menkamam belongs to Muttur D.S. division (sub-district), where mostly Tamils and Muslims are living. The divisional secretary, the chief administrator is a Tamil. Dehiwatte belongs to Seruvila D.S. division with mostly Sinhala settlers living in its boundaries and a Sinhala divisional secretary.

[Figure 1 about here]

⁷ At the same time some major events were occurring such as the Indian intervention in 1987-90, another wave of communal violence, this time largely between Tamils and Muslims in the east and a failed ceasefire in 1995.

The story we want to analyze and compare with the militarized attacks in the 1980s goes as follows (see Figure 1 for an illustration):⁸ Since the 1950s, Sinhala farmers have started to encroach land adjacent to the tank bed (water spreading area of the tank). Step by step, Sinhala farmers increased the encroached area and started to cultivate land that would become emerged under water when the tank would store water to its full capacity. This created a delicate situation: When the tank was retaining water to full capacity to store it for cultivation of Tamil fields under the Menkamam tank, the encroached (illegal) cultivation land of Sinhala farmers would become submerged under water. When water, however, would be released early to allow cultivation in the tank bed, water would not suffice for the cultivation of the Tamil fields. Now, Tamil villagers complained that whenever they stored water in the tank to its full capacity, Sinhala farmers would, under the protection of the army, cut the bund to drain and release the water. Or they would block the feeder channel to the tank so that the tank could not be filled with water. As a consequence, Tamil farmers lost their cultivation in part of the fields. This resource dispute contributed to create enmity and anger between the two communities, on top of the general grievances, frustration and fears already created by the political violence experienced in the advancement of ethnic conflict and warfare.

Since the Tamil farmers were not successful in getting the responsible state agencies to provide action against the encroachment because the civil servants were afraid to interfere in this heated dispute, the next step for Tamil farmers was to approach the LTTE and to seek for help from their side. Menkamam and Dehiwatte are located in 'cleared' areas, thus controlled by the army and police during daytime, but in the night, the LTTE exercises a considerable influence and collects taxes on cultivation from Tamil as well as from Sinhala farmers. Influential farmers from Menkamam have some rapport with the rebels and urged them to

⁸ The case is based on field studies carried out by K. Devarajah, C. Schenk, M. Sugath and B. Korf in summer 2001 as part of a larger research project on rural livelihoods and land use conflicts in the war-affected areas of Trincomalee district (Devarajah et al. 2001; Korf et al., 2001).

become active. Up to the present day, for many years, however, the LTTE did not intervene in the sense of attacking the Sinhala village. There have been minor interferences, such as that the LTTE might increase its taxes on Sinhala farmers as a retaliation of them harming Tamil farmers. This, however, does not solve the dispute as such. The dispute has gained wider cognisance among Tamils in the district and is often cited to exemplify how Tamil civilians are being harmed by Sinhala people with the support of the army and police. The LTTE, with a harsh attack, such as in the 1980s on Sinhala farmers that dared to take over Tamil 'customary' or real lands, could show its firm commitment to the Tamils' political cause. Since the east was always a troublesome spot during the two decades of civil war, this would have appeared as a reasonable political target.

III. Game Theoretic Representation

III.1. Basic setup

If we slightly simplify the game of interaction, we can use the same game tree to represent both situations, viz. the 1980s massacres and the case of Menkamam (see Figure 2): Sinhala farmers (S) encroach resources from Tamil people. The Tamil rebels (R) can react to this either by 'attacking' S (and showing political commitment to fight it out for Tamil Eelam) or by ignoring it and possibly increase the grip of taxation. If R attacks S, the Sinhala dominated army and police forces (A) can either retaliate and attack Tamil civilians (T) or they can refrain from such action. In the latter case, however, the army would show weakness in their political mission to defend the (territorial) integrity of the Sri Lankan state and the primacy of Sinhala Buddhism. In this game tree, we leave T and the Tamil administration out of the game as active players, since they (T) apparently cannot or do not want to (administration) get actively involved by making a direct move in the game. However, we allow for the fact that T might be able to influence the decision making process of R. As explained in the previous section, an escalation of violence with attack from R and retaliation

by A was very common in the 1980s, and partly in the early 1990s, but it did not happen in the case of Menkamam, despite the fact that the case of Menkamam gained the status of a 'symbol' (among many others of course) for Tamil grievances in the region.

[Figure 2 about here]

We attribute utility functions to each of four players, namely the Tamil farmers (T_i), the Sinhala farmers (S_i), Tamil rebels (R_i) and the Sinhala army (A_i) with $i = 1,2,3,4$ denoting the possible outcomes (see Figure 2). Contrary to the self-interest model, we allow these utility functions to depend upon more than simply material payoffs. It is here that we seek to incorporate aspects of bounded rationality and the effects of emotions in a still very simplified manner. We assume that actors can make at least qualitative preference rankings saying which utility is higher than another one and that these rankings are consistent in the sense that if $A > B$ and $B > C$, then also $A > C$.

One weakness in this model is that we aggregate utility from the individual to the group level, which is a critical undertaking.⁹ However, we could argue here that we basically take the utility function of the local rebel leader and the local military commander, and, assuming a strong hierarchical structure, whatever the decision of the leaders, it will be implemented by the rank-and-files. This assumption might hold less firmly in the case of the Sinhala farmers, when we take the utility function of the local farmer leader as reference point. Then, due to a weaker hierarchy, free-riding behavior might occur, because it could be reasonable for farmers to stand back from collective action, especially if it is dangerous, but reap the benefits. We argue that the local context of frontiersmen settlement and constant military threat creates a high social pressure to comply with collective action directed towards the 'ethnic other'. Collective ethnic identity is thus reinforced through collectively acting against the

⁹ Most prominently, Kenneth Arrow (1970) has shown the difficulties involved in aggregating preferences from individual to group level.

'ethnic other'. In addition, only a few farm families directly benefit from the cultivation in the encroached areas, but a much larger group was involved in or agreed to the actions pursued to block the water to the tank.

We now model the utility functions in a simple form taking emotions and their impact on behavior into account. The utility functions of Tamil and Sinhala farmers are assumed to be functions of material gain (denoted by m_{Ti} and m_{Si} respectively) and emotions ranging from anger to satisfaction (e_{Ti} , e_{Si} , with higher levels of e reflecting more positive emotions), each triggered by the behavior of the 'own' combatants. In this case, anger reduces utility and satisfaction increases utility. Both material gains and emotions can take on positive as well as negative values. In our model, we allow for the utility functions to change over time. For example, the relative weights given to material gains and emotions could change as the conflict progresses. Specifically, we assume

$$(1) T_i = f^t(m_{Ti}; e_{Ti})$$

and $(2) S_i = g^t(m_{Si}; e_{Si})$

where – letting subscript j denote the derivative with respect to the j th argument – $f^t_1, f^t_2, g^t_1, g^t_2 \geq 0$.

For the combatants (rebels and army/police), we introduce a model of greed versus pride: The decision making process is governed by an emotional tension between greed and pride at each decision mode: fighting will reap political benefits, in particular 'pride' (denoted by p_{Ri} and p_{Ai} for R and A, respectively), however, at a material loss (fighting costs and foregone rents from the war economy). Fighting would show that the combatant is committed to the grievance cause of the conflict. 'Not fighting' allows to reap the benefits of the established war economy (taxes, bribes) (denoted by g_{Ri} and g_{Ai}) in which both sides (rebels and army) are involved. Again, we allow for utility functions to be time variant. Thus, we can write:

$$(3) R_i = h^t(g_{Ri}; p_{Ri})$$

and (4) $A_i = k^t(g_{Ai}; p_{Ai})$

with $h_1^t; h_2^t; k_1^t; k_2^t \geq 0$.

We furthermore assume that pride of combatants is a function of e_{Si} and e_{Ti} , respectively:

$$(5) p_{Ri} = l^t(e_{Ti})$$

and (6) $p_{Ai} = q^t(e_{Si})$

This functional relationship will be in the form that negative emotions (i.e. anger) among the farmers of one ethnic group, such as anger about non-action of their combatants, will cause shame (= negative pride) upon the combatants of the same ethnic group. Thus, increasing anger among farmers will cause decreasing pride among the combatants ($l^t, q^t \geq 0$). However, the anger of farmers is not the only determinant of the pride of the combatant. In addition, the functional relationship between emotions of civilians and pride may change over time, for example, combatants might depend more upon the emotional support of civilians in the beginning of a rebellion, while in the further advance of warfare, they have established a reputation which will make them less dependent on the emotional support of the civilian population or the other way round. The actual functional relationships have to be deduced from empirical observation.

III.2 Game-theoretic Analysis

We will now analyze the game in more depth and try to explain the different equilibria occurring in the 1980s massacres compared to the Menkadam case. For this purpose, we will explore all theoretically possible equilibria and derive conclusions about the decision making processes at the tree nodes, thus identifying the reason for a certain action and how the different factors might affect the utility function. Since we do not have direct evidence on the reasoning of the combatant actors involved, most of this reasoning will rely on information available in the vast literature on the war economy, ethnic politics and violence in Sri Lanka

and on interviews with key informants in the case study of Menkamam. We first distinguish the four possible social equilibria (Figure 3), and discuss the implications of these outcomes for the utility functions. In a next step, we then reason upon the decisions at each node and why the payoffs of A and R differ in the two empirical cases, hence why different equilibria occur in real life. The utility functions derived will not be assigned quantitative numbers, but defined as qualitative preference rankings. Furthermore, we have to assume that actors dispose of imperfect information only.

[Figure 3 about here]

Through backward induction, we can distinguish the following four equilibria:

(i) *Equilibrium 4: 'Bloodshed' (encroach, attack, retaliate)*¹⁰

S encroaches, R attacks and A retaliates. This happens, when:

$$A_3 < A_4$$

$$R_2 < \lambda R_3 + (1-\lambda)R_4$$

$$S_1 < \rho_2 S_2 + \rho_3 S_3 + \rho_4 S_4$$

with $0 < \lambda < 1$ and

$$\rho_2^t + \rho_3^t + \rho_4^t = 1, \text{ and } 0 \leq \rho_i^t \leq 1 \forall i.$$

where λ^t is the rebel's perception at time t of the probability that the army does not retaliate if the rebels attack. Similarly, ρ_i^t is the probability assigned by the Sinhalese farmers at time t to outcome i occurring if they choose 'encroach'. These probability attributes may change with time, since actors will gain information and alter their perceptions about the expected action of others.

(ii) *Equilibrium 3: 'Army chicken' (encroach, attack, not retaliate)*

S encroaches, R attacks, but A does not retaliate. This happens, when:

¹⁰ The numbering of the equilibria follows the numbering of the payoffs.

$$A_4 < A_3$$

$$R_2 < \lambda R_3 + (1-\lambda)R_4$$

$$S_1 < \rho_2 S_2 + \rho_3 S_3 + \rho_4 S_4$$

(iii) *Equilibrium 2: 'Rebel chicken' (encroach, not retaliate)*

S encroaches, A does not attack. This happens, when

$$R_2 > \lambda R_3 + (1-\lambda)R_4$$

$$S_1 < \rho_2 S_2 + \rho_3 S_3 + \rho_4 S_4$$

(iv) *Equilibrium 1: 'Frontiermen chicken' (not encroach)*

S does not encroach. This happens, when

$$S_1 > \rho_2 S_2 + \rho_3 S_3 + \rho_4 S_4$$

We will now feed back the empirical evidence and discuss the implications for the game-theoretic analysis. In reality, we observe equilibrium 4 (bloodshed) in the colonization schemes in the 1980s (at $t = t_1$), and we see equilibrium 2 ('Rebel chicken') happen in the case of Menkamam in the 1990s (at $t = t_2$).

First, we can assume that $A_3 < A_4$. If the army did not retaliate an attack of the rebels upon Sinhala settlers, it would lose all credibility ('pride') that it were powerful enough to protect the Sinhala settlers. This could have significant implications for the whole project of Sinhala colonization: Without proper protections, many settlers may leave the area, because they feel unsafe and unprotected. Since for the Sinhala state, it is essential to claim sovereignty and maintain control over the whole territory of the island, the armed forces as military representative of the state have to show a commitment to protect its frontiermen. Thus, were the armed forces to choose 'not retaliate' (equilibrium 3), they would lose all political credibility ('pride'). In the longer term, retaliating offers the army the possibility to impose a counterreign to the rebels upon the Tamil civilians that allows them to extract rents from the Tamil civilians ('greed'), especially in the form of petty corruption. They thus gain pride, and, in the medium to long term, the potential for greed.

We can also assume that λ is small, especially at $t = t_2$, since the rebels can foresee that as soon as they attack Sinhala settlers, there will be a retaliatory action from the armed forces against Tamil civilians and against the rebels. Thus, we set $\lambda \sim 0$. When rebels attack, they can assume that, with a very high probability, the army will retaliate.

In the beginning of warfare (at $t = t_1$), the utility function of both combatants, both, R and A, leans towards pride (at the expense of greed): combatants mark their political course and fight it out with the other party. They cause harm to the 'ethnic other', thus establishing their pride and reputation as strong fighters (grievance). In the 1980s, for example, the rebel group LTTE was not the only Tamil militant group, but by far the dominating one. R (the LTTE) had to show that it was able to substantially challenge the politico-military apparatus of the Sinhala state. R had to establish a reputation and 'pride' into its political course and address Tamil grievances with attacks against the Sinhala encroachment. Similarly, the army had to underline its ability to protect the Sinhala frontiersmen and to counterbalance grievances among Sinhala by attacking Tamil civilians and terrorists. However, R's gain in pride is largely at the cost of greed: the rebels will not be able to extract rents from people who have left their property. If, as we have argued, pride plays a dominating role rather than greed at $t = t_1$, this can explain why the rebels attack Sinhala settlers, although they know that the armed forces will retaliate and cause harm to Tamil civilians ($R_2 < R_4$). This is consistent with equilibrium 4.

In the Menkamam case ($t = t_2$), we observe equilibrium 2. The rebels do not retaliate. How can this difference in behavior be explained? In this case, R decides not to attack the Sinhala settlers. Since R can assume that A will retaliate ($\lambda \sim 0$), we have to compare R_4 and R_2 .¹¹ Why is now R_2 more attractive than R_4 in the Menkamam case, while in the 1980s, the reverse seemed to be the case? If R chooses not to attack, it loses pride, but will be able to

¹¹ R_3 is actually the highest utility R could ever achieve: The rebels gain pride for fighting the Sinhala frontiersmen, substantiate their position in the civil war and can thus expand their war economy upon Tamils as much as Sinhala civilians, while the army loses credibility (pride) and some of its war rents, because of its weakened position.

maintain its war economy rents. R_2 is thus high, if pride factors do not play a dominating role, while it is relatively low when pride is important. If R chooses to retaliate, it will gain reputation as tough fighter, but it undermines its war economy (you cannot tax people who are displaced and have lost their belongings). Thus, R_4 is large, if pride factors play a dominating role. Thus, the observed equilibria suggest that at $t = t_2$, pride seems to play less a dominating role than at $t = t_1$, while greed becomes more dominant.

In addition, the functional relationship between p_{Ri} and e_{Ti} could also change over time, in the sense that there may be less effects of e_{Ti} upon p_{Ri} . In other words, the symbiotic relationship of civilians' emotions and rebels' pride may diminish over time. The combatant forces become less dependent upon the emotional and political support from the civilians, since they have stabilized their realm of power. Civilians may become too intimidated to challenge the position of the combatants. In this case, even though grievances among civilians may rise, this may have less of an impact upon the pride function of the combatants, since greed becomes more dominating for them.

Thus, to summarize, our analysis suggests that in the earlier stage of the civil war, the utility function of combatants, in particular of the rebels, is more 'pride' oriented and grievances are center-stage, while it shifts to become 'greed' oriented with the further advance of the civil war. The rebels (and the army, too) first have to establish pride and reputation, before they can shift focus towards greed. This suggests that at an initial stage, it is more grievance than opportunity to loot (greed) that drives rebellion and political violence.

Let us now look at the decisions of the Sinhala frontiersmen (S), since they initiate the game with their action. Why does S choose to encroach in both empirical cases, even though this can lead to 'bloodshed'? S faces imperfect information: How will R, and subsequently A, react to the encroachment? Thus, the distribution of probability attributes (ρ_i , $i=2,3,4$) across outcomes is important in determining the decision of S. Since the Sinhala settlers can expect with high probability that in the case of rebel attack, there is an army retaliation, we can set ρ_3

~ 0. Thus, S will have to consider its utilities S_1 against S_2 and S_4 . We can simplify the condition for both empirically observed cases to represent an equilibrium in terms of the actions of the Sinhalese to:

$$S_1 < \rho_2 S_2 + (1-\rho_2) S_4.$$

At $t = t_1$, if S expects 'bloodshed' (equilibrium 4), it seems unreasonable to encroach, because the possible negative effects of a rebel attack (loss of lives, property) may overshadow emotional satisfaction derived from encroaching Tamil areas and experiencing military support from the army. However, the settlers that were sent to Weli Oya and some other strategic settlement schemes in the 1980s, were often poor landless farmers, and in some cases, even criminals that were released from prisons (Hoole 2002). They thus did not have much to lose. The potential material loss m_{S1} is small, but the emotional frustration (anger) is high, impacting negatively on S_1 (hence, S_1 is negative). In addition, these frontiersmen settlers were heavily ideologized by politicians and military. They were aware that they went as frontiersmen to defend the Sinhala state against the claims for a Tamil homeland. Thus, emotions (nationalist satisfaction) may have been high on the agenda. Emotional satisfaction of nationalist feelings (e_{S4}) may outplay potential material loss (m_{S4}). Thus, leaving the area and not to encroach might have been less attractive than taking the risk and encroaching the area, even at the risk of 'bloodshed'.

Another explanation could be that these frontiersmen settlers assumed that the rebels would not dare to attack them (ρ_2 is large), because they arrived with a high army presence that would refrain rebels from taking action. Assume that the Sinhala frontiersmen feel aggrieved by the escalation of violence (S_4 becoming negative: material loss and emotional dissatisfaction). S_2 being positive (material and emotional gains), a large ρ_2 could balance out a negative S_4 such that $S_1 < \rho_2 S_2 + (1-\rho_2) S_4$ with ρ_2 being sufficiently large.¹²

¹² However, this explanation does not hold, if we consider that the escalation of political violence had already happened and that the LTTE had shown its commitment to political violence prior to these frontiersmen settlements. Sinhala frontiersmen thus could assume that ρ is indeed small.

In the case of Menkamam, at $t = t_2$, Sinhala settlers have been living at the place for forty years, being part of the early colonization schemes, that were much less politicized than the Weli Oya schemes. Contrary to the frontiersmen in Weli Oya, these settlers are less ideologized in the sense that they would perceive a political mission to defend the Sinhala state. Thus, they have much less to gain in an escalation of violence than the frontiersmen settlers in the 1980s. Why did these Sinhala farmers decide to encroach land and to provoke local Tamils and the Tamil rebels? At first sight, it appears puzzling why in the historical context of communal violence in the east, these Sinhala frontiersmen took the risk of starting a spiral of violence for the sake of a few additional acreages of land. If S chooses to encroach, the condition $S_1 < \rho_2 S_2 + (1-\rho_2)S_4$ again must hold. S_4 will be negative, since an escalation of violence leads to loss of life, property and possibly even displacement, which is not counterbalanced by substantial emotional gains (these settlers are less ideologized). S_2 , on the other hand, will be very high: S derives material benefits and emotional satisfaction (they encroached without punishment), while Tamil farmers, T, will be at a loss, both in material and emotional terms. The negative utility of Tamil farmers influences the decision making of the rebels (R): if grievances rise, this will put pressure on R to attack S. In this case, ρ_2 would become smaller. However, these grievances may have a smaller impact upon the utility function of R at $t = t_2$, since the rebels have already established and stabilized their realm of power and depend less upon the emotional support of their civilian clientele (see argument above).

Thus, S will only encroach, if it can be sure that ρ_2 is reasonably large (i.e. S expects R not to attack). Otherwise, it would be more reasonable not to encroach, since this would be possible without major material loss (the encroached acreage is small) and emotional frustration (S_1 is negative, but not as much as S_4 is likely to be). Hence, S seems to understand that R will prefer 'greed' (R_2) to 'pride' (R_4), even though this frustrates Tamils. In this case, S can assume that ρ_2 is indeed large.

IV Concluding Remarks

In general, the economic literature on civil wars focuses on the interaction between warlords and argues that opportunities for potential rebels to loot determine the outbreak of civil wars. These analyses are implicitly driven by studies from a number of recent civil wars that have degenerated into warfare among 'conflict entrepreneurs' (e.g., Afghanistan, Congo, Sierra Leone, Angola, Sudan). In our view, these macro-studies still lack an empirical basis on the micro-level and concentrate too narrowly on the motivations of warlords. It was our argument that even though there is war, civilians and combatants interact in local games. The meta-game of the war is thus mirrored in various small-scale conflicts at the local level, of which we have depicted examples from the war zones of Sri Lanka. We have analyzed these with a simple game-theoretic model enriched with aspects of bounded rationality which is a useful tool for a more rigorous analysis of the narratives of violent conflict.

Such micro-studies are important to complement the macro-studies on civil wars to enhance our understanding of the mechanisms of greed, pride, grievances and violence. Our micro-study also investigated the interaction between combatants and civilians and how symbiotic relationships between emotions (grievances) of civilians affect the 'pride' or political commitment of combatants. Furthermore, we have subsumed rebels as well as the state forces as combatants in our model, instead of focusing on the motivations and intentions of rebels alone. In our view, rebels as much as state forces can become 'warlords' and it might be dangerous to solely direct the finger to rebel formations as triggerers of war economies.

Our analytic narrative suggests that grievance factors were center-stage at the beginning of the escalatory process of the Tamil uprising in Sri Lanka. Grievances have remained high on the agenda in Sri Lanka as compared to some 'new' wars in Africa, Central Asia and the Balkans. However, our findings suggest that greed becomes more prominent in the further advance of the war. While, in the beginning of political violence, rebels have to establish a

good reputation and 'pride' of being a tough fighter for the political course, in the further advance of warfare, financial aspects gain more importance, be it for financing warfare or for personal material gains of rebel leaders. Our findings also suggest that combatants become less inclined to emotional support from civilians in the further advance of warfare, or, in other words, the effects of the emotions of civilians on the pride of combatants diminishes over time. This argument would support the point Jean and Rufin (1999) made earlier, that grievances are at the core of rebellion and that war economies gain ground in the further advance of warfare. These observations may also be relevant for other civil wars in Africa and Central Asia that have deteriorated into markets of violence, but may not have started as such war economies.

References:

- Arrow, K. J. (1970): *Social Choice and Individual Values*. Yale University Press.
- Azam, J.-P. and A. Hoeffler (2002): Violence Against Civilians in Civil Wars: Looting or Terror? *Journal of Peace Research* 39 (4), 461-485.
- Azar, E. (1990): *The Management of Protracted Social Conflict*. Aldershot: Dartmouth.
- Bates, R.; A. Greif; M. Levi; J.-L. Rosenthal and B. Weingast (1998): *Analytic Narratives*. Princeton: Princeton University Press.
- Berdal, M. And D. M. Malone (2000): *Greed and Grievances: Economic Agendas in Civil Wars*. London & Boulder: Lynne Rienner Publishers.
- Collier, P. (2000): 'Economic Causes of Civil Conflict and Their Implication for Policy'. Development Research Group. Washington D.C.: World Bank.
- Collier, P. and A. Hoeffler (2001): 'Greed and Grievance in Civil War'. Washington D.C.: World Bank, Development Research Group.
- De Silva, K.M. 1998. Reaping the Whirlwind: Ethnic Conflict, Ethnic Politics in Sri Lanka. Delhi: Penguin.
- De Soysa, I. (2002a): 'Ecoviolence: Shrinking Pie, or Honey Pot?' *Global Environmental Politics* 2 (4), 1-33.
- De Soysa, I. (2002b): 'Paradise Is a Bazar? Greed, Creed and Governance in Civil War, 1989-99', *Journal of Peace Research* 39 (4), 395-416.
- De Soysa, I. (2000): 'The resource curse: Are civil wars driven by rapacity or paucity?' In: Berdal, M. and Malone, D.M. (eds.): *Greed and Grievance: Economic Agendas in Civil Wars*: 113-135. London: Lynne Reinner.

Devarajah, K.; B. Korf and C. Schenk (2001): 'Grievances over Land. Dehiwatte – Menkamam: Thematic Area Study on Land Use' Working Paper No. 44, Trincomalee: Integrated Food Security Programme (IFSP). At www.ifsp-srilanka.net

Elster, J. (1999): *Strong Feeling*. Cambridge: MIT Press.

Elster, J. (1998): *Alchemies of the Mind*. Cambridge: Cambridge University Press.

Fearson, J.D. and D.D. Laitin (2003): 'Ethnicity, Insurgency, and Civil War'. *American Political Science Review* 97 (1), 1-16.

Flugerud, O. (2003): 'Local Communities and State Ambitions in Eastern Sri Lanka', in: M. Mayer; D. Rajasingam-Senanayake and Y. Thangarajah (eds.): *Building Local Capacities for Peace: Rethinking Conflict and Development in Sri Lanka*, 65-79. Delhi: Macmillan Publishers.

Goodhand, J. (2003): 'Enduring Disorder and Persistent Poverty: A Review of the Linkages Between War and Chronic Poverty' *World Development* 31 (3), 629-639.

Homer-Dixon, T.F. (1999): *Environment, Scarcity and Violence*. Princeton: Princeton University Press.

Hoole, R. (2001): *Myth, Decadence and Murder: Sri Lanka – the Arrogance of Power*. Colombo: University Teachers for Human Rights (Jaffna).

Jean, F. and J.-C. Rufin (1999): *Ökonomie der Bürgerkriege*. Hamburg: Hamburger Edition.

Kaldor, M. (1999): *New and Old Wars: Organized Violence in a Global Era*. Stanford University Press.

Kalyvas, S. (2001): '"New" and "Old" Civil Wars: A Valid Distinction?', *World Politics* 54, 99-108.

Keen, D. (2002): '"Since I am a Dog, Beware my Fang": Beyond a 'Rational Violence' Framework in the Sierra Leonean War'. Crises States Programme, Working Paper No. 14. London: Development Studies Institute, London School of Economics (LSE).

Korf, B.; Flämig, T.; Schenk, C.; Ziebell, M.; Ziegler, J. Singarayer, R.M.; Abeyrathne R.M.; Devarajah, K.; Dharmarajah, D.; Sakthivel, T. (2001): *Conflict – Threat or Opportunity? Land Use and Coping Strategies of War-affected Communities in Trincomalee, Sri Lanka*. Berlin: Schriftenreihe des Seminars für Ländliche Entwicklung (SLE), S195.

Mallick, R. (1998): *Development, Ethnicity and Human Rights in South Asia*. New Delhi: Routledge.

Mayer, M.; D. Rajasingam-Senanayake and Y. Thangarajah (2003): *Building Local Capacities for Peace: Rethinking Conflict and Development in Sri Lanka*. Delhi: Macmillan Publishers.

Moore, M. (1989): The Ideological History of the Sri Lankan 'Peasantry'. *Modern Asian Studies*, 23, 1, 179-207.

Peebles, P. (1990): 'Colonization and Ethnic Conflict in the Dry Zone of Sri Lanka'. *The Journal of Asian Studies* 49, 1, 30-55

Peiris, G.H. (1991): 'An Appraisal of the Concept of a Traditional Homeland in Sri Lanka'. *Ethnic Studies Report* 9 (1), 13-39

Peiris, G.H. (1994): Irrigation, Land Distribution and Ethnic Conflict in Sri Lanka: An Evaluation of Criticism, with Special Reference to the Mahaveli Programme. *Ethnic Studies Report* 12 (1), 43-88.

Rotberg, R. I. (1999): *Creating Peace in Sri Lanka. Civil War and Reconciliation*. Washington D.C.: The World Peace Foundation and The Belfer Center for Science and International Affairs.

Skaperdas, S. (2002): 'Warlord Competition'. *Journal of Peace Research* 39 (4), 435-446.

Spencer, J. (1990): *Sri Lanka. History and Roots of Conflict*. London & New York: Routledge.

Stewart, F. (2000): 'Crisis Prevention: Tackling Horizontal Inequalities'. *Oxford Development Studies* 28 (3), 245-62.

Tambiah, S.J. (1986): *Sri Lanka: Ethnic Fratricide and the Dismantling of Democracy*. Chicago: Univ. of Chicago Press.

Thangarajah, Y. (2003): 'Ethnicisation of the Devolution Debate and the Militarization of Civil Society in North-Eastern Sri Lanka', in: M. Mayer; D. Rajasingam-Senanayake and Y. Thangarajah (eds.): *Building Local Capacities for Peace: Rethinking Conflict and Development in Sri Lanka*, 15-36. Delhi: Macmillan Publishers.

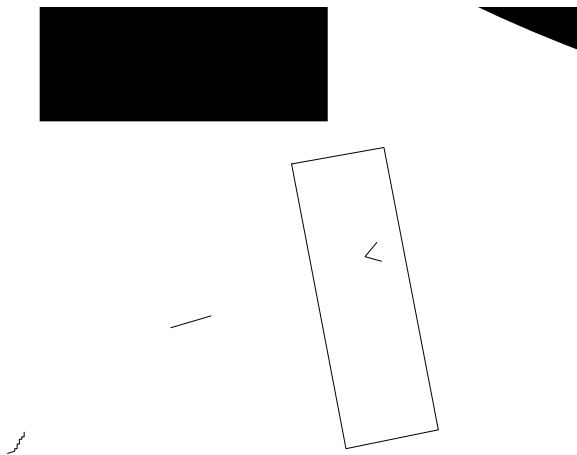


Figure 1: Resource Dispute in Menkamam



Figure 2: The Game



Figure 3: Game Equilibria