European Journal of Population (2005) 21: 291–320
DOI 10.1007/s10680-005-6857-0
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The Demographic Consequences of Conflict, Exile and Repatriation: A Case Study of Malian Tuareg

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Received 17 February 2004; accepted in final form 22 June 2004

Randall, Sara (2005), The Demographic Consequences of Conflict, Exile and Repatriation: A Case Study of Malian Tuareg, European Journal of Population, **21**: 291–320.

Abstract. A framework outlining the potential impacts of conflict on demographic behaviour is used to analyse the post-conflict demography of Malian Tuareg after substantial conflict-induced social, political and economic changes. A remarkable stability in both fertility and marriage leads to the conclusion that an important demographic consequence of persecution and conflict may be an entrenchment of demographic behaviour which reinforces the population's demographic identity particularly with respect to reproduction. The importance of unique historical, political and cultural experiences of a population in responding to conflict precludes the development of a 'demography of conflict', suggesting we should be pursuing the 'demography of conflicts'.

Key words: conflict, fertility, Mali, mortality, nomads, nuptiality, Tamasheq, Tuareg

Randall, Sara (2005), Conséquences démographiques des conflits, exils et rapatriements: une étude de cas chez les Touareg du Mali, Revue Européenne de Démographie, **21**: 291–320.

Résumé. Les Touareg du Mali ont récemment subi plusieurs conflits qui sont à l'origine de changements sociaux, politiques et économiques. Cet article traite de l'influence de ces conflits sur les comportements démographiques. La remarquable stabilité de la fécondité et des mariages incite à penser que les persécutions et les conflits peuvent conduire à un gel du comportement démographique qui renforce l'identité de la population, notamment en ce qui concerne la reproduction. L'importance d'une expérience propre à chaque population d'un point de vue historique, politique et culturel incite à développer les travaux sur la 'démographie *des* conflits' plutôt qu'à chercher à identifier une 'démographie *du* conflit'.

Mots clés: conflit, fécondité, Mali, mortalité, nomades, nuptialité, Tamasheq, Touareg

1. Introduction

'The demography of conflict' conjours up the human costs in terms of deaths on battlefields or in bombed out cities. Looking beyond the immediate mortality costs of conflict there are myriad other short term demographic consequences: forced and voluntary migration; increased mortality through destruction of health and sanitary infrastructure; decreased fertility as a result of spousal separation or psychological stress. Indeed it is hard to delimit where the demographic consequences of conflict stop, since conflict reconfigures the social and political landscape as well as generating economic deprivation; subsequent social change will be associated with changing demographic behaviour in all spheres of demography: fertility, mortality, migration and nuptiality and subsequent intergenerational echoes in the age-sex structure.

Conflict is part of the human condition and therefore should be integral to all analysis and interpretation of demographic behaviour. Yet it is possible to focus in on particular situations and events in order to establish more specific conflict-induced demographic responses with the aim of developing our theoretical understanding of the particular role of conflict in shaping demography. Immediate consequences of conflict (deaths, migration, births averted) may be difficult to measure because of social disorder and priorities for humanitarian relief rather than data collection and although we should recognise that such consequences represent a huge human cost, ultimately they may be of less intrinsic importance to an understanding of the demography of conflict than the medium to long term changes that conflict generates in the surviving population because the latter forms the basis for the emergent society with its population dynamics.

Few studies have focused on the longer-term impact of conflict on demographic dynamics in contemporary developing countries – although much demographic research has been undertaken in populations involved in or recently emerged from conflicts (many Demographic and Health Surveys) where demography is inevitably shaped by not only the conflict but post-conflict political and economic reconstruction. Agadjanian and Prata's (2002) analysis of Angolan fertility is an exception in their use of time periods and regions which are likely to have experienced different intensity of conflict. Contrary to their expectations, the capital Luanda, which had least direct experience of conflict, had the strongest fertility response. This could be interpreted two ways – that "advanced urbanisation made residents more responsive to changes ... and at the same time better able to control their fertility" (p. 227), the other being that the fertility decline in Luanda was largely unrelated to the conflict. Lindstrom and Berhanu's (1999) analysis of Ethiopian data also focuses on probability of births in particular time periods known to have had intense conflict. Such periods also tended to be times of

drought and it is hard to separate the two but there seems to be a fertility depressing effect of conflict. More long-term consequences are not considered although they consider whether "the experience of fertility limitation under the duress of political and economic crises may have increased couples' awareness of the real and opportunity costs associated with each additional child and the benefits of reduced fertility" and thus have contributed to subsequent fertility decline. On the other hand one could equally well anticipate a pronatalist response, with children perceived not as costs but as longer term security as well as being increasingly vulnerable to death. Such pronatalist responses to conflict are particularly evident for Palestinians whose fertility is substantially higher than would be expected from their level of socio-economic development (Courbage, 1995, 1999; Khawaja, 2000, 2003; Pedersen, Randall and Khawaja, 2001; DellaPergola, 2001).

Neither of the above African studies considers the impact of conflict on nuptiality, which is unfortunate since, in low contraceptive prevalence communities – such as most conflict-affected populations in Africa – nuptiality is the major determinant of fertility differentials, the primary arena for reproductive decision making and far more pertinent to the fertility of disenfranchised rural populations than contraceptive use, showing remarkable elasticity (Chojnacka, 1995). Nuptiality responses to conflict are critical not only for their impacts on fertility but because marriage remains the principal forum for recruitment to and reproduction of the social group. Conflict frequently threatens specific social groups. Disruptions to or substantial changes in patterns of couple formation are indicative of both individual and community psychological responses to the perceived or real threats to the group. These could take the form of positive attitudes to population reconstruction and rebuilding; retrenchment towards marriage behaviours which reinforce a specific ethnic or lineage identity through endogamy and consanguinity; expansion of marital networks in order to maximise strategic alliances in case of future conflicts. The potential for nuptiality responses to conflict may be ultimately more far-reaching than those of mortality or fertility, because they have not only demographic consequences but also profound cultural and political meanings.

2. A framework for conceptualising demographic consequences of conflict

A framework developed for conceptualising the impacts of forced migration on fertility (Randall 2004) can be expanded to include both mortality and nuptiality and the wider connotations of conflict (Figure 1). This framework considers the demographic consequences of conflict in different stages, each building upon and reacting both with pre-conflict demographic regimes and different groups' perceptions of their own demographic dynamics and those of neighbouring populations. The different forces will vary in importance as

the phases of conflict and post-conflict advance: speculation about the weight of each force on fertility is represented by the thickness of the arrows in Figure 1.

The pre-conflict demographic regime should not be conceptualised as a static state generated by that population's cultural values. For all populations conflict just adds a further element or accelerant of change into a dynamic demographic scenario which could have been relatively stable or changing rapidly in the years preceding the conflict. In a demography of conflict we need to understand how conflict may act as a catalyst to demographic change or have predictable impacts on the particular manifestations of demographic change. However, in all cases, long-established cultural values have shaped both the pre-conflict demographic parameters of a population and the potential for change. Religion, class hierarchies, normative gender roles, values, belief systems all contribute to determining observed demographic behaviour of populations and the range of demographic choices for individuals within that population, but ecology, environment, production and the political and economic context are equally important. Neither cultural values nor the other external factors remain constant and conflict is likely to accelerate changes. It is essential not to think of culture as a simple monolithic determinant (Hammel, 1990; Lockwood, 1995; Coast, 2003) while recognising that traditions, norms and accepted values will certainly contribute to the marking of the boundaries of acceptable demographic responses at the individual level. The framework below attempts to disentangle the different components of these boundaries.

Three basic periods of conflict and forced migration can be identified whilst recognising that each specific situation will have its own complexities.

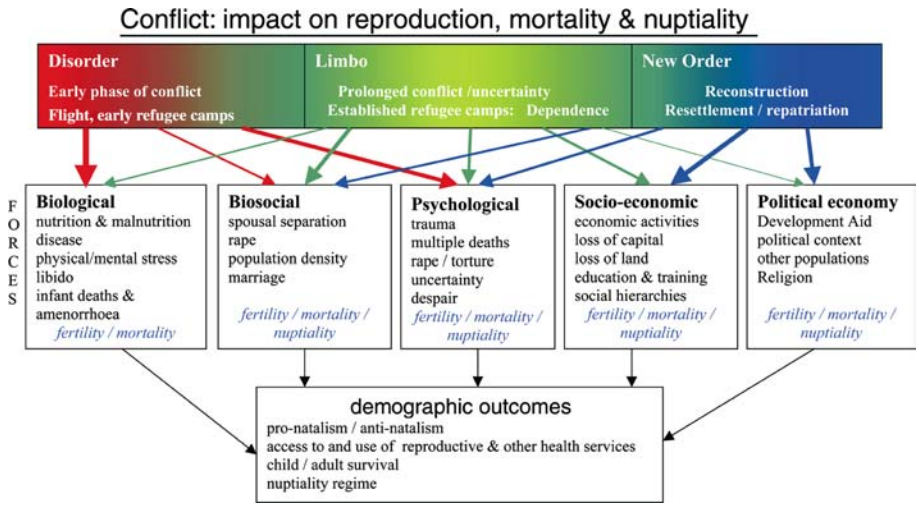


Figure 1. Conceptualisation of phases of forced migration or conflict on demography.

Disorder at the beginning of conflict may include flight or movement, and early responses to a different environment. During *Limbo*, conflict is established, people have learnt how to cope but the future is totally uncertain. Refugees are not yet able to rebuild their lives but immediate acute danger may be past, and for them at least, the basic logistic problems of health-care and sanitation have often been resolved. The same is not true for people who remain in conflict zones in a limbo of uncertainty with productive economic activities often restricted. This phase may be very short or may last for many years. *New Order* is the post-conflict reconstruction of an independent economic life and the re-establishment of social and political order which, for refugees is contingent upon resettlement or repatriation. This is not a return to the past: "the return process is not about going home or back in time to regain something that once existed, it creates an entirely new situation" (Haug, 2002: 71) and this is as true for demography as for social, political and economic relations.

In each phase of conflict, demography will be influenced by many voluntary and involuntary forces which can be grouped broadly into five categories (Figure 1) each of which will have a different degree of importance in terms of impact on pre-crisis demographic norms.[1] During *Disorder* biological impacts will often resemble those in famine situations: nutritional crisis, disease, stress, loss of libido, infant deaths and curtailed breast-feeding (Ashton et al., 1984; Watkins and Menken, 1985; Dyson, 1991; National Research Council, 2004). Biosocial impacts on fertility and nuptiality will be a consequence of spousal separation or lack of privacy; the risk of rape may be important. Individual level psychological factors may have a major impact at this stage.

In *Limbo* all five forces operate with different intensities and outcomes according to the particularities of the situation; biosocial and psychological factors usually being more important than biological or those of the political economy. The latter, along with socio-economic impacts, generally dominate fertility and nuptiality in the *New Order*. All impacts on fertility in each of the phases will operate through the proximate determinants but in terms of conceptualising the specific impact of conflict it is essential to consider the specific modifying forces in each situation.

Using this framework I will analyse the particular case of the Kel Tamasheq in western Mali to show the importance of community history, past experiences and pre-conflict relationships with other populations for understanding the trajectory of post-conflict demographic responses. It will become clear that one cannot just consider 'the demography of conflict'. Every conflict-affected population will interpret the causes and consequences of conflicts according to their prior experience and will respond accordingly, usually within the culturally accepted range of possibilities. Each population will be subject to unique conflict-generated socio-economic changes which

are predicated upon the pre-conflict social organisation, political context and international responses to the conflict. It will be shown how conventional demographic understanding of both mortality and fertility transitions may need to be reconsidered in both the immediate and longer-term post-conflict reconstruction.

3. Background

Kel[2] Tamasheq live across Northern Mali, southern Algeria, Niger and northern Burkina Faso and most used to be archetypal nomadic pastoralists, herding goats, sheep, cattle and camels according to the local environment. Two populations were studied in 1981 and 1982 (Randall, 1984, 1996) when western Kel Tamasheq spent the dry season using pastures in the inner Niger delta (see map), leaving in the wet season to move north and west into drier areas. This transhumance pattern was itself relatively recent with the Kel Tamasheq first entering the delta in substantial numbers after the 1913 drought, a movement that frequently engendered local conflicts between different groups.[3] The surveyed populations were all nomadic pastoralists practising no agriculture and were socially heterogeneous with representatives of all the different Tamasheq social classes; warriors, religious groups, vassals, lower status groups, blacksmiths, and Bella – slaves and ex-slaves.[4]

In contemporary Mali 'Tuareg' refers to the warriors, religious groups and vassals descended from Berbers and Arabs who crossed the Sahara in the 15th and 16th centuries (although originally 'Tuareg' just referred to the warrior minority). Tamasheq is a Berber language and physically most of these higher status Kel Tamasheq are light skinned Berbers and are variously referred to both by themselves and other Malians as red (*rouges*).[5] Like in many West African communities, slavery was a well established institution in pre-colonial times and most Kel Tamasheq slaves were originally captured in raids on sedentary farming communities. Bella are black African and although all speak Tamasheq, they clearly have different genetic origins to the Berber Tuareg. Many Bella were liberated in the colonial period and after independence, although de facto ownership of slaves still continued at the time of the 1981–1982 surveys with many Tuareg having resident Bella to do most domestic and herding work. The 1981–1982 surveys included both dependent and long-freed independent Bella.

The 1980s surveys showed the Kel Tamasheq to be demographically unusual for sub-Saharan African populations. Heterogeneity in terms of production, environment and social organisation within the Malian Kel Tamasheq population means that we cannot generalise about their demography – but some of the specificities almost certainly apply elsewhere.[6] The demographic regime was typified by low(ish) fertility,[7] largely a function of the monogamous nuptiality regime with frequent divorce and substantial

spousal age differences, and unusual patterns of mortality differentials. Higher status (and usually wealthier) Tuareg children had much higher mortality than lower status blacksmith and Bella children (Hill and Randall, 1984; Randall, 1984). Tuareg women had higher mortality than Bella women but the opposite was the case for adult men. Although extra-marital childbearing was more acceptable for Bella, overall their total fertility was similar to that of the Tuareg (Randall and Winter, 1985).

Culturally determined gender roles had a major impact on the demographic regime (Randall, 1984; Fulton and Randall, 1988). In this region Tuareg women were expected to do little or no work except making and repairing the leather tents. This was possible because of the existence of the dependent slave population. Class based differences in behaviour were reinforced by force feeding rich high status girls and young women and their subsequent obesity limited physical activity. Most Tuareg women were expensive to maintain – often contributing little to the household economy, housework and even childcare.[8] In the total absence of access to effective health services, childcare patterns were partially responsible for differential mortality between social classes (Randall 1984; Hill and Randall, 1984).

Nevertheless, there was substantial diversity over both time and space. The extent of both force-feeding and slavery had been declining for at least two decades before the 1981–1982 demographic surveys but in the populations studied they were still quite frequent. Elsewhere in Mali, Kel Tamasheq had become less nomadic as a consequence of herd loss in the 1973 drought and the domestic slave population had declined, with Bella moving to urban areas, becoming independent herders or turning to agriculture. In the 1980s there was a small urban minority of educated Kel Tamasheq, but in both the populations studied everyone was nomadic, few had been to modern school and there was little contact with health services. Most people lived in relatively small isolated camps (20–50 people) and although men had contact with the outside world through travel and markets, most women led very socially restricted lives.

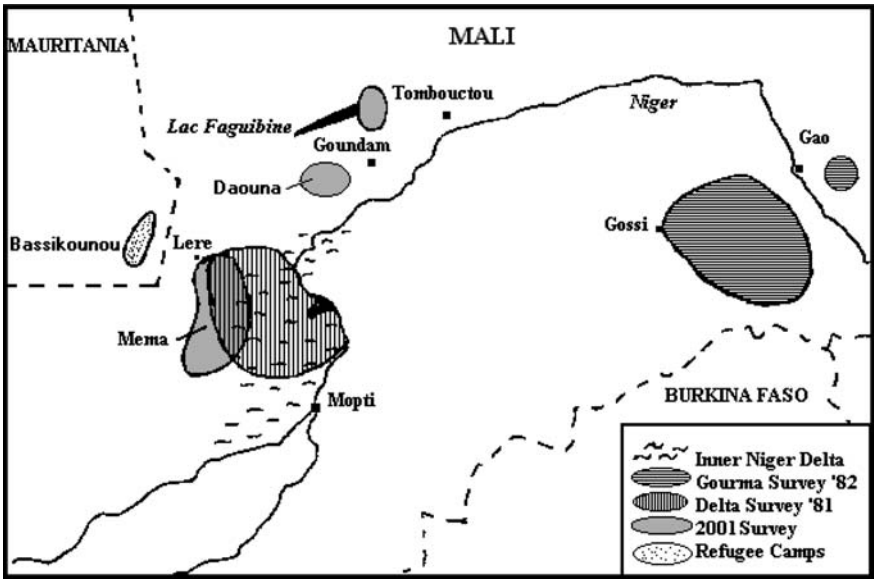
The 1984–1985 drought led to substantial herd losses, population movements, food aid and a mushrooming of international and local Non Governmental Organisations (NGO). Dependent Bella left their owners who could no longer afford to support them, people moved temporarily to the towns and some groups started to sedentarise (Randall and Giuffrida, in press). Those who remained nomadic became less isolated, with increased knowledge about the outside world and contact with development projects.

3.1. CONFLICT

In 1990 rebellion first broke out in Niger and was followed by a Tuareg attack in east Mali. Thereafter small bands of armed Tuareg attacked military and

administrative posts – sometimes killing the incumbents, usually stealing vehicles. The MPLA (Mouvement Populaire pour la Libération de l'Azawad) was created with the aim of liberating Tuareg territories in the north. The Malian Army responded at first by patrolling the areas and then clashed with the rebels. Despite negotiations mediated by the Algerians, the rebel attacks increased in intensity throughout early 1991 and gradually expanded westwards towards Tombouctou and the Mema (see map). As the rebel attacks increased so did those of the Malian army on the Tuareg and Maures with men, women and children being killed in camps, villages and towns. The Malian population became incited against the 'reds' and there were attacks and raids on shops owned by Tuareg and Maures throughout northern and central Mali. Skin colour and physical appearance was a major factor identifying those who were attacked and after the '*massacre de Lere*' in May 1991, Tuareg in the Delta and Mema areas fled en masse to Mauritania[9] (elsewhere people fled to Algeria, Niger and Burkina Faso), just across the border. Some took their herds and tried to continue their mobile pastoralism in Mauritania – facing major problems of access to water and wells. Others left everything behind or consumed most of their animals during the flight.

UNHCR (United Nations High Commission for Refugees), WFP (World Food Programme) and NGOs responded rapidly to the huge influx of people and three refugee camps were set up. Conditions were poor at first because of the scale of the crisis and the isolation of the area. People continued to flood into the refugee camps through 1991–1993 and into 1994. The majority



Map. Mali and Mauritania detailing survey sites and refugee camps.

stayed until 1996, having spent 4 or 5 years there, although spontaneous repatriations occurred throughout the period. Nevertheless the main waves into the Mauritanian refugee camps were in 1991–1992 and the main wave out was in 1996 under a repatriation programme run by UNHCR and GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit) after the signing of various peace agreements. Although the majority of camp residents had previously been nomadic pastoralists, there were also people who had sedentarised after the 1985 drought, along with civil servants, teachers, traders, craftsmen and students. A few domestic Bella fled with their masters but black Tamasheq were not persecuted and many stayed in Mali, some with the animals, some leaving the pastoral sector altogether. Many changes were experienced by former nomadic pastoralists in the refugee camps: forced immobility with large numbers of people with heterogeneous former experiences; rudimentary health care provision developed into immunisation programmes, free health and maternity care; boreholes provided clean tap water in contrast to previous experience of river and marsh water; young people enjoyed a more varied and active social life. In later years schools were set up in the refugee camps and some women received training to facilitate economic independence after repatriation.

Repatriation compounded changes to life-style. Part of the reconciliation and repatriation package developed by the Malian government with UNHCR and other international organisations (République du Mali, 1995) included promises to build schools, drill boreholes and develop infrastructure in the refugees' destinations as well as in other northern communities. For repatriated refugees infrastructure was to be proportional to the population registered in a specific site. This encouraged sedentarisation and has led to a proliferation of wells surrounded by small settlements (Randall and Giuffrida, in press). People with few or no animals no longer needed to be nomadic and many of those who retained animals claim to have seen the physical benefits of a sedentary lifestyle although there are also clear political aspects (see section 4.2.1) to this transformation.

Thus in 2001, four years after repatriation, much of the population is sedentary, fewer are totally dependent on a pastoral economy, unpaid domestic labour is rarely available and Tuareg women are thinner and more active. Formal education and modern health care are more acceptable and available and good quality water is usually close by. The population is highly politicised and feels vulnerable about being physically conspicuous in Mali with many believing there could be future violence against them.

3.2. DEMOGRAPHIC ASPECTS OF THE CONFLICT

Although it would be fallacious to think that this conflict was underpinned by demographic causes, past migrations, population dynamics and spatial

distribution of populations certainly contributed to some of the underlying tensions. Tuareg and Maures had migrated southwards across the Sahara in previous centuries and their racial distinctness combined with traditions of raids and slave capture among the black African cultivating populations mean that there is a culture of racially determined suspicion. This is exacerbated by the fact that many Tuareg persist in denigrating black Malians with what they see as slave-like qualities – stupidity, ugliness, inferiority. In the early 1980s two Tuareg women expressed total incomprehension about how a black government could possibly be capable of running a country and they mourned the passing of the French (although the archives testify to substantial Franco-Tamasheq conflict). According to Berge (1993) "... many Tuaregs however now feel that the Malian government rather than France, is the main cause of their troubles". This racial prejudice was more at a population level than between individuals. Many Tuareg men had excellent individual reciprocal relationships with Songhay and Peul whom they encountered over negotiations about pastures and in the market. These relationships were essential for survival in the zone. Marty (1999) explains how in pre-colonial and colonial times the only way the hugely variable Sahelian environment could be effectively exploited was through the co-existence of populations with economic specialisations appropriate to different ecological niches who could exchange goods, produce and services. Marty makes the point that in the early 20th century the French tried to sever the mutually beneficial economic, social and political links between the sedentary and the nomadic populations who had long evolved an effective (although not conflict-free) co-existence and interdependence. Nevertheless distrust of the 'other' was always present and this flared up in 1990 once the conflict between the army and the rebels was established. From the Tuareg perspective, an element of this distrust was an ever-present perception that they were a demographic minority who had never had their fair share of political, administrative and military power and that they were constantly discriminated against by the Malian government. They also believed (correctly) that the black populations were growing faster than they were because of higher fertility and lower mortality. It is unclear to what extent this perception arose out of intellectual Tuareg reading the colonial archives[10] – which consistently portrayed Tuareg as a declining population with very low fertility – and to what degree it was an accurate observation of the polygamous Songhay, Bambara and Peul populations maintaining most reproductive age women continuously married and reproducing.

Over recent decades, driven by population growth and by drought induced economic transformation, the expansion of agriculture along the banks of the Niger and into areas which were previously dry season pastures is very evident. In the increased competition for natural resources, especially water and productive land, mobile pastoralist groups have lost out. One of the original

Table 1. Population characteristics 1981, 2001

	1981	2001
De jure population	6,125	8,270
Sex ratio	0.98	1.04
Tuareg (red)	1.07	1.06
Bella and blacksmiths (black)	0.88	0.96
Individual interviews	*All women 15–50*	*Ever married women 12–55*
	1289 interviews done	1313 interviews done[a]
	89% eligible women	79.1% eligible women
		Ever married men
		739 interviews
		54.7% eligible
Percentage Tuareg	53%	76.5%

[a] + 23 interviews with women over 55.
Source: Demographic surveys 1981, 2001.

aims of the rebellion was a separate land for the Tuareg which may have been as much a plea for inalienable land rights as one for political autonomy.

These demographic undertones to the conflict are particularly relevant to understanding some of the demographic repercussions and responses but contemporary Tamasheq demography cannot just be interpreted in the light of the conflict which this population has endured. This study was undertaken nearly ten years after the start of the conflict and over 4 years after repatriation. In these ten years Mali underwent democratisation and decentralisation which have serious implications both for demographic outcomes but also for deliberate manipulation of demographic behaviour.

4. This study

4.1. DATA

In both 1981 and 2001 demographic data were collected using a single round retrospective survey and birth histories for women (Table 1). In 2001 marriage histories were also collected for women aged 12–55 and for present men. For absent and elderly women summary data were collected on numbers of living and dead children.[11] In 1981 we attempted a total enumeration of the Tamasheq population who spent the dry season in and on the periphery of the Niger inland delta (see map). By 2001 most of this population no longer transhumed into the delta and the aim was to enumerate all the Tamasheq population living in or transhuming around the sites[12] to the west of the delta (the Mema) where most of the groups enumerated in 1981 were known to live. In 2001 we also enumerated both sedentary and nomadic

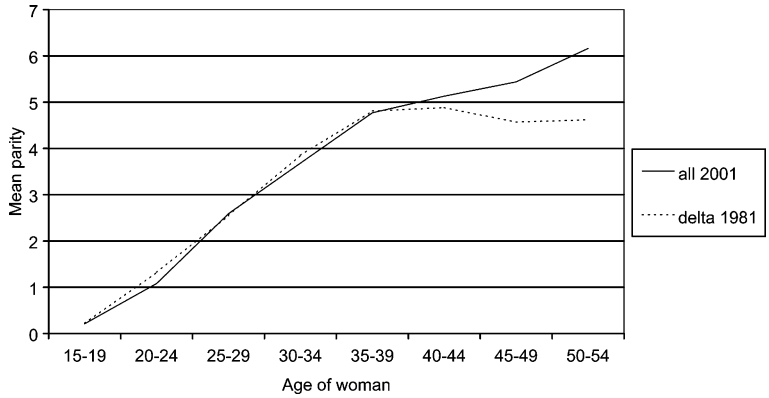


Figure 2. Tamasheq parity by age 1981, 2001.

communities in the Daouna further north, some of whom had previously transhumed in the delta, and some communities north of Goundam which included nomadic groups who had not fled during the rebellion. A linked anthropological study into the demographic consequences of the rebellion was undertaken in these northern communities.

4.2. FERTILITY

A population level comparison of parity and age-specific fertility shows little change over the last twenty years (Figures 2 and 3). This is a population where age reporting is poor and where surveys encounter substantial suspicion. The anomalies can largely be explained by reporting problems such as the deficit of children for older women in 1981 and the outliers for older cohorts (Figure 3).

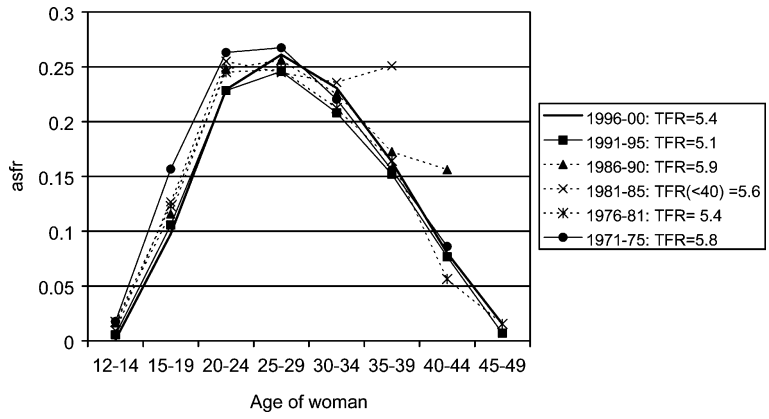


Figure 3. Age specific fertility rates (asfr) by period: Total population using 2001 and 1981 data.

This stability is remarkable when one considers all the crises that this population has endured: drought, forced migration, repatriation; economic transformation from nomadic pastoralism to semi-sedentary living in a more diverse economy; for rich families the quasi-total loss of unpaid domestic labour and a general impoverishment of a substantial majority of the population alongside substantial declines in child mortality (see section 4.4).

This stability in the face of conflict suggests that fertility responses to crisis are not homogenous. Conflict may engender very different responses to an economic slump. In urban West Africa, faced with major economic problems, fertility has fallen rapidly, largely through postponement of marriage (Antoine and Djire, 1998), yet this rural Tamasheq population which has faced more intense economic, social and political crisis responds not by fertility decline but by stability. The general consensus is that fertility transition is stimulated by some (although not necessarily all) of modernisation, education, a move away from subsistence production, exposure to mass media, declining infant and child mortality (Bulatao and Casterline, 2001). All these have occurred in these Tamasheq populations over the last few years, although the starting point was so low that the enormous social and economic transformations may only be visible to those who knew this population twenty years ago.

In fact, the low level of socio-economic development coupled with the substantial social change gave good reason to anticipate an increase in fertility. In 1981 total fertility was around 5.5, total marital fertility around 10. Fertility was low compared to the rest of rural Mali largely because of the marriage regime (see below) – although there was some evidence of slightly raised levels of primary and secondary infertility and subfertility (Randall, 1996). Although Muslim, most Kel Tamasheq are monogamous in a country where other populations are highly polygamous: 42.6% of Malian women were in polygamous unions, rising to over 50% for women over 35 (République du Mali, 2001: Table 6.2), whereas only 0.5% Tuareg women and 5.5% Bella women were in polygamous unions. There are substantial spousal age differences (median 10 years) and a general inclination to divorce with no stigma attached. These characteristics, alongside young female age at first marriage and high male adult mortality mean that a substantial proportion of reproductive aged women are unmarried at any one time (Randall, 1984; Randall and Winter, 1985; Fulton and Randall, 1988; Randall and Giuffrida, 2003), reducing fertility significantly. Yet two simple changes in the marriage dynamics would allow a substantial increase in proportions of reproductive aged women married and thus in fertility: a reduction in male age at first marriage (Singulate Mean Age at Marriage (SMAM) 1981 = 28.1, 2001 = 29.4) or the adoption of polygamy. The first would increase the supply of potential husbands and the second is religiously acceptable because they are Muslims and polygamy is ubiquitous in

surrounding populations. Tuareg men do attempt polygamy from time to time, but with the exception of one lineage where it is said to be acceptable, and where three cases of polygamy were observed during fieldwork, few men attempt it and even fewer women accept it.

4.2.1. *Expectations of conflict induced fertility change*
Using my framework it becomes clear that there are many reasons why one might expect conflict-induced increases in Tamasheq fertility in the *New Order* phase.

Biological and biosocial factors. These will have most impact on fertility in the *Disorder* and *Limbo* phases of conflict (see Randall, 2004) rather than post-conflict.

Psychological factors. Psychological impacts must be considered at both the individual and the group level, although at times it may be hard to distinguish between the two with individual responses conditioned by group attitudes. The Tuareg studied in 1981–1982 believed themselves to be a minority who were being outpaced demographically by other (black) Malian populations.[13] The conflict, with its racial overtones and forced migration reinforced this self-perceived vulnerability. The period spent in the refugee camps allowed for plenty of exchanges between traditional rural pastoralists, modern, educated 'intellectuals' and young radical rebels and time to reflect on the Tuareg position vis à vis Mali (and Mauritania). The exile occurred simultaneously with the world-wide popularisation of fundamentalist Islam. Improved communications and contacts with the many former migrants to Libya, Algeria and Saudi Arabia certainly facilitated the spread of some fundamentalist Muslim ideas including that a good Muslim has many children to increase the Muslim population, and that God will provide for all. The melting-pot in Mauritania of intellectuals, nomads, religious leaders and returned migrants combined with militant rebels campaigning for a separate Tuareg state, was almost certainly a fertile discussion-ground for a development of pronatalist attitudes. Yet in the anthropological study, such pronatalism was really only expressed by a few intellectuals and not the mass of refugees. Many men and women believe that it is a sin to control fertility within marriage[14] and some women clearly felt a personal conflict of interest, being personally terrified of childbirth through observations of horrendous maternal deaths[15] and not wanting too many children yet believing that fertility control was *haram* (forbidden), but this is just the traditional interpretation of Islam and unrelated to the conflict. Thus, there were many reasons why leaders might take a determined pronatalist stance, but other than that associated with interpretations of Islamic doctrine, such pronatalism does not appear to have materialised in individual behaviour or discourse. On the other hand, in neither the anthropological study nor the demographic data was there any evidence of an anti-natalism consequent

upon despair and trauma as documented among some urban Tuareg by Canut and Iskova (1996).

Socio-economic factors. The socio-economic impacts of the conflict were substantial for most rural Kel Tamasheq, continuing the process of herd loss, impoverishment and loss of dependent labour which started in the droughts of the 1970s. In the process of flight many households lost much livestock: abandoned in panic, consumed en route, sold to pay the extortionate price that Mauritanians asked for access to wells. Not all animals were lost. Some people managed to maintain herds outside the refugee camps in Mauritania, some were able to build up herds of small stock through trade and investment in the later days of exile. Some families – especially in the north – never left during the rebellion and maintained their herds and a highly nomadic life-style in hidden inaccessible places in the mountains. In general though, it seems there has been a substantial decline in wealth and herd size (although some of the rich have probably become richer). This impoverishment appears to have no impact on reproductive decision-making. Children are not perceived as consumers who must now be fed from a smaller pot. God is seen to be the ultimate provider and within most communities there are poor households partially or totally supported by richer kin. Substantial resources are flowing into the area through NGOs and their associated projects, and although these projects do produce infrastructures, some of the inflowing resources may be converted into assets and cattle for rich people with the right networks. Traditions of kinship support networks remain strong and can mitigate temporary absence of resources. Their very strength motivates people to want children, because children are the basis for future networks and are seen (sons at least) as far more of an asset than a cost.

A further conflict-related motivation for high fertility might have been the final erosion of social hierarchies and dependent (slave) labour. In 1981 there were some dependent (unpaid) Bella in every Tuareg camp surveyed, although there were also independent Bella camps. By 2001 most Bella living in mixed communities were either independent Bella who had chosen to live in there, or paid servants. Most Tuareg women had to do substantially more domestic labour than before and one might imagine that both women and children as sources of labour would be more valued. However, observations in the sedentary sites indicate that many older children (especially boys) have little economic, or other, role to play, with many just hanging about. There are too few animals for them to learn herding and little in the way of other economic activities. Many men also spend much of their time sitting around talking,[16] although herd owners, blacksmiths and those working as masons building the many new houses, work extremely hard. Thus, although conflict-induced diversification of economic activities and the loss of slave labour might have led children to become more desirable for their labour – in

Table 2. Percentage literate in French by age 1981, 2001

Age	Women		Men	
	1981	2001	1981	2001
10–14	0.3	15.3	0.3	15.3
15–19	0	7.5	0	11.5
20–24	0.3	3.6	2.5	13.2
25–29	0.4	1.5	4.1	2.7
30–34	0	0	0.5	6.5
35–39	0	1.5	1.2	7.3
40–44	0	1.6	1.1	7.5
45–49	0	1.3	2.8	9.3
50–54	0	0	0	6.9
55–59	0	0	1.1	6.0
60–64	0	0	0	1.0
65–69	0	0	0	9.0

Source: Demographic surveys 1981, 2001.

fact there is little evidence of this because such diversification is not very evident.

The conflict and exile transformed demand for and participation in education. Schools were set up in the refugee camps and many children attended for one to three years (see the increase in the proportions of younger children declared literate in Table 2). Attitudes to formal education have changed. In the refugee camps those who had any schooling were easily able to get paid employment with the NGOs and UNHCR and education is now seen as one path to employment and future security. Provision is now easier; modern education and a nomadic lifestyle are practically incompatible whereas now that many people are sedentarised and have few animals, education is not competing with traditional animal husbandry training. The repatriation package for larger sites included the construction of schools (Papandiek et al., 1999), some of which have teachers supported by the government and others which are community schools. Many more teachers in local schools are now Tamasheq, some trained in the refugee camps, others attracted by life in a sedentary Tamasheq milieu. Elsewhere in Africa, increased educational participation has driven fertility decline because of the costs to parents, but here the minimal costs of schooling are not yet a brake on fertility with material costs often met by NGOs or rich kin. School attendance remains low by international standards but high compared to 1981.

If a substantial proportion of girls goes through primary school there may be future repercussions for fertility. Only 17 of 1,110 women had ever used

modern contraception and only 22 had used traditional methods (4 both). Literacy in French or Arabic was significantly associated with contraceptive use, as was having lived in a town or village; having been a refugee was not. The conflict has transformed Kel Tamasheq socio-spatial distribution. In 1981 the few educated people left the area and pastoralism in order to use their education in appropriate urban occupations. Decentralisation and sedentarisation – both linked to the conflict – have attracted back some educated former urban dwelling men, accompanied by their cosmopolitan wives and daughters (see Table 2 for literate women aged 35–49). They have chosen to be based in the sedentarised communities – where there is now more appropriate employment because of the schools, the NGO projects and the administrative posts in the new decentralised communes. This increased educational heterogeneity may eventually contribute to fertility decline – although comparing parity distributions of French-speaking men (6.9% of over 20s) with non-French speaking suggests not in the near future (Figure 4).

Political economy. The post-conflict political economy has substantial potential for an impact on fertility through pro-natalist agendas. This is particularly the case in Mali where democratisation and decentralisation emerged partly as a consequence of the conflict. Decentralisation and more local financial and development autonomy were a concession to the original demands for a Tuareg state. In practice, the decentralised communes in the North are often tiny because each group wants autonomy; many are likely to be unviable in terms of tax collection, provision of services and in paying the salaries of the elected office holders. Future fertility and population growth is likely to become an issue since all these communes need to attract more people. Again one would expect the changes engendered by the conflict to trigger pro-natalist attitudes but this certainly had not manifested itself in increased fertility by the time of the survey.

Another consequence of the rebellion and the subsequent peace process is the huge amount of development aid being siphoned into the area (Giuffrida and Randall, 2003; République du Mali, 1995). To the outside observer, it is not clear where all these resources are going, but a substantial population with few visible means of support is thriving. In visiting over 50 communities, few obviously malnourished babies or children were observed and although women are no longer seriously obese, many would be classed as overweight in Europe. If, as seems likely, many of these 'development' resources are subsidising the survival of individuals and communities, then this too will influence perceived costs and benefits of reproduction in favour of pronatalism.

Thus in terms of demographic logic and the socio-economic and political changes consequent upon this conflict, one would have expected Tamasheq fertility to increase. Yet there is no evidence for this at all. Does this mean

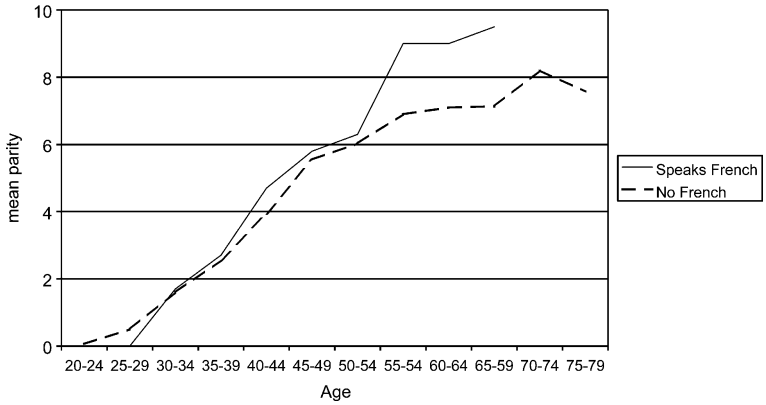


Figure 4. Male parity by age and ability to speak French.

that our predictions were wrong or do other consequences of conflict counteract or inhibit changes in fertility? Given that nuptiality was the major determinant of Tamasheq fertility in 1981, an examination of the dynamics of the marriage regime before, during and since the conflict contribute to our understanding of why conflict crisis may induce different responses to economic crisis.

4.3. NUPTIALITY

Both in 1981 and 2001 Tamasheq were monogamous, with early but variable age at first marriage for women, late male first marriage, high frequency of divorce and widowhood and substantial numbers of currently unmarried women usually living with close male kin; 5–10% women never married. This is very different from the rest of Mali (Figure 5) where most women marry in their teens, polygamy is frequent, marriage is universal and most women are married throughout their reproductive years. The uniqueness of the Tamasheq marriage system is compounded by their very high levels of consanguineous marriage. Most rural Malian populations have marriage preferences for close kin but the Tamasheq encourage all forms of cousin marriage (in contrast to Bambara for whom only cross cousin marriage[17] is acceptable) with half of all first marriages being between first degree cousins or once removed. Parallel patrilateral cousins are preferred spouses but cross cousin and matrilateral parallel cousin marriages are quite frequent. Because of previous consanguineous marriages most spouses can trace their kin links in various different ways.

With the exception of the biological, all the different forces outlined in Figure 1 influence nuptiality in the different phases of conflict. However, it is

difficult to disentangle them and consider each discretely because of the complex nature of the influences on and consequences of marriage.

Other than migration, marriage is the demographic behaviour over which people have most control. It can therefore be manipulated in an attempt to secure various ends, some of which may be conflict related. In a situation of conflict, marrying off one's daughters or sisters secures alliances, reinforces bonds and may also increase women's safety, although in this conflict there is no evidence that rape was a problem. During the conflict the proportion of first marriages of very young girls (under 15) and of older women (aged 19+) increased (Figure 6) reverting to the pre-conflict distribution after the end of the conflict.

This marital response could be interpreted as a pronatalist strategy of moving women, who might normally have remained unmarried, into reproductive situations; this might have been the case for the older women. The large numbers of people in the refugee camps allowed for matching of couples who might otherwise have had problems in finding a spouse. It could also have been protection for women. In the refugee camps parents lost much control over their unmarried daughters who attended the frequent marriage celebrations. Accounts of camp life by young unmarried girls show that they had a lot of freedom and enjoyed themselves considerably. Premarital pregnancies are totally unacceptable for Tuareg and one way of protecting daughters is to marry them off. Both of these explanations could account for the increased proportions of young and old marrying. A third possibility is that the conflict and the refugee camps provided both the opportunity and the need to reinforce old alliances and create new ones. Many people commented that in the refugee camps they met kin whom they had known about but had never met before. Marriage has long been a Tamasheq strategy to

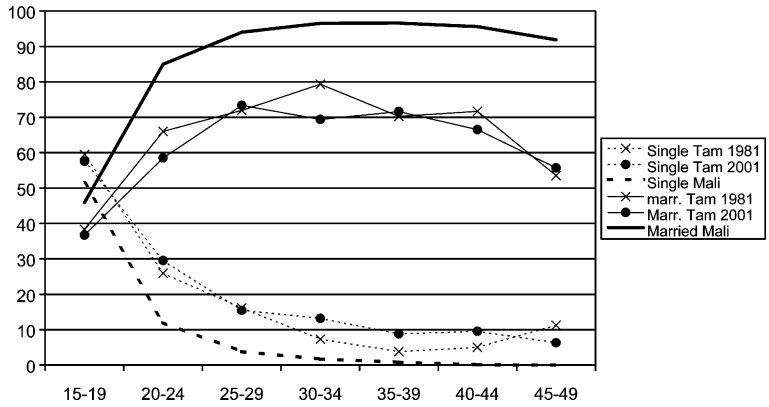


Figure 5. Percentage women currently single and married Tamasheq 1981, 2001, Mali 2001 (DHS).

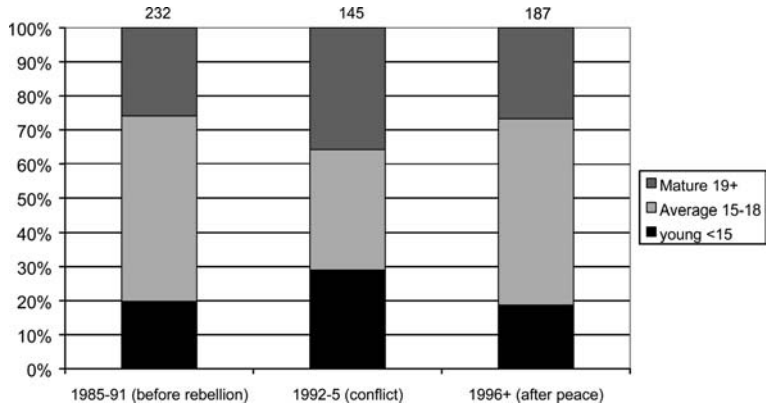


Figure 6. Tuareg women-percentage distribution of age at first marriage by conflict period.

generate alliances and networks and during the rebellion there was probably more need of these than ever before. However, this would imply an increase in marriage rates during the period of conflict and exile for which we have no evidence (Figure 7). It seems, therefore, that both young girls and older women were married off in the conflict period with a concomitant decline in proportions of women aged 15–18 marrying, but not that there was an excess of marriages in a pronatalist fervour.

An examination of the choice of spouse can also indicate particular priorities in a conflict. From women's marriage histories we have data on the kinship link with husband – recorded using Tamasheq terminology – from which it can be seen that the kinship distance of first spouses remained fairly constant from the pre-conflict, through the conflict and then post conflict (Figure 8).

First marriages are usually organised by parents and the motives may be political alliances, economic networks, a desire or an obligation to please close kin. The couples themselves often have strong expectations of love. Sometimes either or both of the couple do not want the marriage at all but go through with the proceedings to conform to their family's wishes, divorcing a few months later, although many close kin first marriages do succeed (Randall and Giuffrida, 2003). A woman generally has more say in choosing a spouse for second and subsequent marriages but many still prefer to marry close kin. Kinship bonds are seen as being much stronger than marital bonds – therefore the strong love which, for Tuareg, is seen to be inherent between close kin, will contribute to making a marriage strong. A closely related husband cannot mistreat his wife because of the kinship links, and she cannot insult her in-laws because they are also kin. Although substantial bridewealth may be declared for a marriage – either in cash or animals – it seems that, in

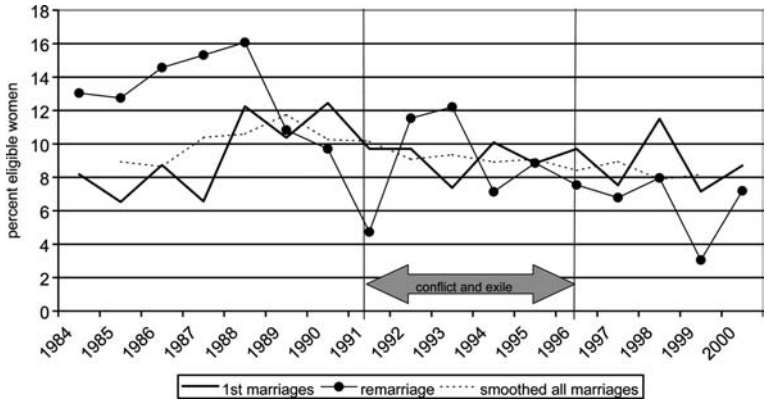


Figure 7. Annual first and remarriage rates: Tuareg.

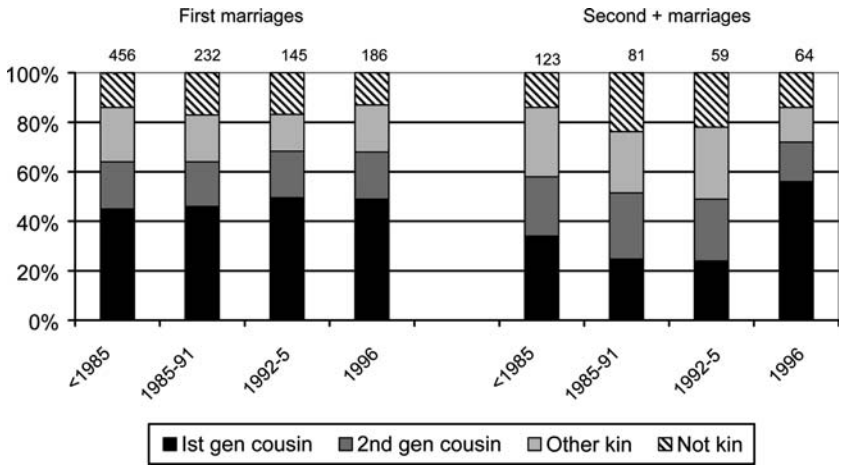


Figure 8. Percent Tuareg marriages by period and kinship distance.

the case of close kin marriage much of this bridewealth is never actually exchanged.

The pattern of spouse choice for second marriages (Figure 8) has changed considerably since the end of the conflict with a substantial increase in the proportion of close kin marriages. This is clearly a response to the post-conflict situation but from the demographic data we cannot tell whether more second marriages are being arranged as strategic alliances or whether women are choosing close kin in an atmosphere where kin are more certain than somebody more distant. Given that remarriage rates have declined (Figure 7) the decrease may just be an overall reduction in marriages to distant kin and non-relatives with no concomitant increase in close kin. Whatever the case the population appears to be turning inwards.

These marriage patterns can be seen as a particular 'Tuareg' response to this conflict through the maintenance of traditional marriage behaviour reinforcing an identity far apart from 'others' in the conflict. Monogamy is an important identifying characteristic of being Tuareg in Mali and one which can be maintained in the post-conflict era. Consanguineous marriage is frequently used to reinforce links between different *tiwsaten* (the patrilineages), where the *towsit* is another important element of people's identity. People are Tuareg but more importantly they belong to a specific *towsit*. Many other characteristics which contributed to Tuareg identity in the past have had to be or have been largely abandoned: nomadic pastoralism; most of the material culture associated with the tent and pastoral production; fat women who could be admired as expensive objects but who need not do any work; traditional values of hospitality and generosity, undermined by loss of resources and conflict generated suspicion of others; the social hierarchy. Monogamous marriages with close kin are an element that can be retained, that the conflict and social change has been unable to destroy. Such marriages can simultaneously serve a purpose reinforcing alliances, guaranteeing the pedigree of the next generation, demonstrating a solid Tuareg front to the outsiders, and reinforcing links and networks within the society that can provide some security to the impoverished and develop power and influence for certain individuals and groups.

Traditionally in Africa marriage serves political and economic ends, generating or consolidating alliances usually validated through the children born to the couple. Marriage is the means of legitimising reproduction which is an important goal for both men and women and usually the unmarried adult (or the childless adult) is a social anomaly. This is only true of Tuareg marriage to an extent, in a culture where reproduction is rarely given the primordial position that it is in other societies. The importance of the links and networks and obligations created by Tuareg marriages should not be underestimated and may go a long way towards understanding why the conflict seems to have consolidated traditional marital behaviour rather than leading to change. Around 20% marriages are with girls aged 14 or less, few of whom have reached menarche and clearly where immediate reproduction is not the goal (preservation of virginity is not the main aim of these marriages either since virginity is not a particularly sought after virtue in Tuareg society (Nicolaisen, 1997)). These precocious marriages are often quite brief and may even be unconsummated; the girls are not interested in having children, finding such thoughts totally shameful. The motives for these marriages are about the links and obligations they generate at the time, not about future fertility. This reinforces the idea that the stability of Tuareg marriage in the face of this conflict and concomitant socio-economic changes is because marriage is not serving primarily fertility functions, but is rein-

forcing aspects of Tuareg society and identity which the conflict has made all the more important to demonstrate to others.

4.4. MORTALITY

The immediate and longer-term impact of conflict on mortality is self-evident and operates largely through biological forces. There were massacres and attacks which resulted in death, and the epidemics and poor conditions in the early days in the refugee camps also resulted in increased infant and child mortality (Randall, 2001). Nevertheless, on the scale of many African conflicts excess deaths were probably not substantial, although that is not to deny the trauma caused by those that did occur and the conditions under which they happened. According to individual biographies, specific attacks and massacres were frequently the trigger for flight into Mauritania. Estimation of the impact of the rebellion on adult mortality is difficult because the indirect methods available make assumptions about time related patterns of mortality, which may not apply in conflict. Direct measures of child mortality from birth histories are more robust and demonstrate the role of biological factors in the *Disorder* phase of conflict (Figure 9) having most impact on infants but also interrupting the mortality decline for children aged 2–5. This ties in with accounts of epidemics at first in the refugee camps followed by the development of free health care and vaccination campaigns.

Ultimately however the social change for which the conflict was a catalyst was largely beneficial in terms of infant and child mortality if one looks at the substantial decline between the 1980s and the late 1990s with child mortality now lower than elsewhere in Mali.[18]

There are several reasons why this should be so, with the biological risks influenced by both socio-economic and political forces. Although many people have lost livestock and become poorer, ironically this has had beneficial consequences for children's health. With fewer livestock, and changing residence patterns most children no longer transhume into the inland Niger delta where they all spent the hot season in the 1970s. The water in the delta was atrocious – marsh and river water – and malaria was a constant problem. Now, in the drier Mema and Daouna where most people now spend most of the year, malaria is less intense, and water quality is improved with wells, boreholes and water pumps, many created as part of the reconciliation and repatriation package (République de Mali, 1995: Papandiek et al., 1999). High status women are now thinner and more active, leading to more continuity of childcare. Observations suggest that children are washed much more frequently than in 1981–1982, and with soap. All the children who had been in the refugee camps were immunised, and at the time of the survey there was a new mobile immunisation campaign. Primary health care workers have been trained in the refugee camps, and although they have little

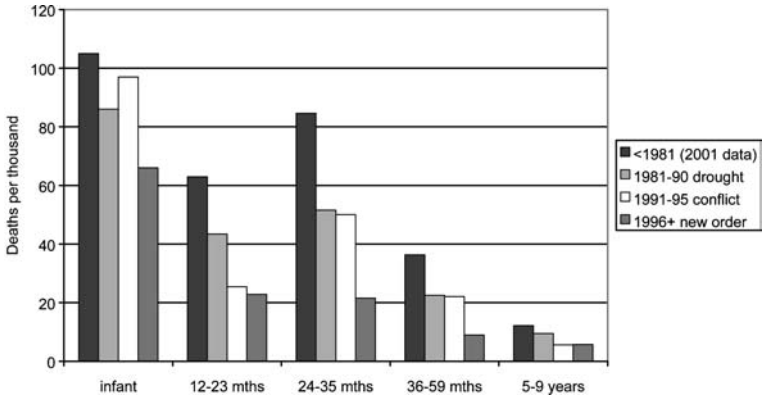


Figure 9. Infant and child mortality from birth histories.

in the way of drugs, people do consult them and are prepared (and able) to travel to health centres if they feel it is necessary because communications and transport are much improved.

Thus the social change caused by the conflict has generally led to changes with positive impacts on infant and child health and mortality, particularly compared to elsewhere in rural Mali (Table 3). However, there is one exception related to the marriage patterns outlined above. Consanguineous marriages have deleterious health and mortality consequences for the offspring (Bittles, 1994) and Tuareg have extremely high levels of consanguinity. Table 4 shows that children born to closely related parents have higher mortality than those of unrelated parents, although the differences are only statistically significant for the earliest and most recent period and are most marked since repatriation. Given that only about 30% of the couples are in the low risk group, the maintenance of consanguineous marriage strategies will have an important impact on child survival.

Table 3. Child mortality – Kel Tamasheq and Rural Mali

	Neonatal	${}_1q_0$[c]	${}_4q_1$	${}_5q_0$
Rural Mali 1991–2001[a]	71.0	131.9	139.8	253.2
Kel Tamasheq 1991–2001	50	82	119	166
Kel Tamasheq 1971–81 (1981 data)	(34)[b]	114	165	260

[a] Source République du Mali, 2001 (Table 6.2).
[b] There was substantial underreporting of neonatal deaths in 1981.
[c] ${}_1q_0$ = probability of dying between birth and first birthday.
${}_4q_1$ = probability of dying between 1st and 5th birthday.
${}_5q_0$ = probability of dying between birth and 5th birthday.
Source: Demographic surveys 1981, 2001.

Table 4. Proportion of children surviving to age 5 by period and relatedness of parents

Period of birth	1st cousin and once removed (1)	2nd/3rd cousin and once removed (2)	Distant kin or unrelated (3)	p (between kin (1 & 2) and not kin) (3)
< 1981	0.717	0.702	0.776	0.058
1981–90	0.789	0.787	0.801	not significant
1991–95	0.835	0.815	0.871	not significant
1996+ (to age 3)	0.807	0.871	0.937	$p < 0.0001$

Source: Demographic survey 2001.

The consequences of conflict for Tamasheq child mortality therefore can be summarised as favourably influenced by biological factors with a generally improved physical environment and maternal health, but deleteriously influenced by biosocial factors through increased consanguinity. Socio-economic and political changes are ultimately responsible for the improved physical environment with livestock loss and impoverishment one of many motives for sedentarisation. However NGO and UNHCR policies both in the refugee camps and in the conditions for repatriation also contributed to new attitudes towards health services alongside increased provision and access.

4.5. SPATIAL DISTRIBUTION

The most visible demographic impact of the conflict has not been on population dynamics but on the spatial distribution. Although the survey methods are not appropriate for considering this in the same detail as population dynamics, some observations are possible.[19] Whereas in the early 1980s the surveyed Kel Tamasheq were all nomadic pastoralists, living in small flexible camps, now over half the population are semi or permanently settled in fixed communities with houses built of mud bricks. Even the more nomadic households tend to remain close to a site for much of the year to use the well or borehole. Some of this sedentarisation occurred before the conflict as a result of drought but the rate accelerated after repatriation for many reasons – economic, political, and a response to policies of development agencies,[20] and all were directly influenced by the conflict (see Randall and Giuffrida (in press) for detailed discussion) and by the social change generated by the refugee camp period. However, alongside the socio-economic and political changes, sedentarisation, or at least the building of permanent settlements, also has a psychological dimension, which is grounded in the conflict. People are very aware that mobile pastoralists living in tents were somewhat invisible

with little evidence that they had ever been in Mali after they had fled. Many likened themselves to birds – when birds have flown away you cannot tell they have ever been there. Fear of future conflicts and a determination to render themselves much more visible is one of the dimensions behind the rapid construction of mudbrick houses – if forced to abandon them in the future there is hard evidence that people lived there. This determination to make their mark upon the landscape may have some grounds in their experience of access to land. In Mali throughout the colonial and Independence periods those who claimed rights over land had to exercise a '*mise en valeur*' which effectively meant cultivating the land. Pastoralists who merely grazed the land had few rights and these had gradually been eroded throughout the 20th century. Building houses in sites is a way of physically demonstrating one's presence and one's use of the land. Many sites have also attempted cultivation – although it is not clear with how much success.

5. Conclusions

Aspects of both sedentarisation and nuptiality can be seen as part of the same range of responses to conflict – attempts to make the Tuareg population visible and readily identifiable in case of future conflicts, so that they are unable to disappear from Mali. The maintenance or even exaggeration of traditional marital behaviour, much of which distinguishes this population from other rural Malian groups, is part of consolidation of group identity as Tuareg. The tendency for conflict and crisis to reinforce interethnic divisions and delimit identities (Marty, 1999) is clearly evident both in the creation of these solid Tuareg communities and in the retention of monogamy, the rejection of polygamy and the frequency of close kin marriage.

How can this case study contribute to a conceptualisation of the demography of conflict? It seems unlikely that one will ever be able to generalise about a demography of conflict, save that in the short term mortality is inevitably going to rise. In order to understand or even predict responses in any situation it is essential to have a historical perspective – conflict does not emerge from nowhere – there are past tensions, past relationships, past conflicts which contribute to the range of responses (Berge, 1993). In the north west Mali tensions between different ethnic groups, between groups using different modes of exploiting the natural resources, were documented in the French archives throughout the twentieth century – although it is true that many of these tensions may have themselves been generated by the French colonial administration (Marty, 1999). The same archives also document substantial conflicts *within* ethnic groups, between different lineages and the groups behind different chiefs. Nevertheless, the tensions between Tuareg and Maures and other ethnic groups were very real by the 1990s and demographic responses to the conflict include attempts to respond to those

tensions through reinforcing identity as Tuareg or more usually in terms of the *tiwsaten* – the lineages. One must never forget that fertility is the primary mode of recruitment to most social groups and marriage is the legitimisation of fertility. Thus, when a group feels itself under threat, a frequent response is going to be one where the boundaries between the aggressor and the threatened are clarified, delimited and strengthened – in this case by reinforcing marriage rules and conventions, by constructing communities that are both visible and unambiguously Tuareg, and by consolidating networks between those who are known to be part of the same group.

This account documents the demographic responses of one group to the conflict they experienced. We cannot predict that other conflicts emerging out of different historical situations and with different patterns of power, economic adaptation and disruption and in different environments will respond in similar ways. In Mozambique Lubkemann (2003) demonstrates the variety of migration responses manifested by different groups during the same conflict. The variability of patterns of who moves, where and how they move and whether families fission or whether communities consolidate, is interpreted in terms of pre-existing social fault-lines and tensions – themselves conditioned upon historical experience. As with this Tuareg study, Lubkemann's work suggests that in the field of demography and conflict, generalisations and predictions are probably futile because conflict's causes, meanings and responses are so diverse and so embedded in historical relations. The framework outlined in this study can contribute to our understanding of the complexity of demographic responses to conflict, but is unlikely ever to permit prediction of outcomes. We should be wary of attempts to develop 'a demography of conflict' but should move towards 'a demography of conflicts' or even 'demographies of conflict'.

Acknowledgements

The ESRC funded the 2000–2001 demographic and anthropological study of repatriated Tamasheq refugees (Grant No. R000238184), which was undertaken in collaboration with ISFRA, Université du Mali, Bamako. Alessandra Giuffrida undertook the anthropological component of this study and provided valuable contributions to this article. The 1981 demographic survey of the Delta Tamasheq was financed by ILCA as part of their socio-economic research programme directed by Jeremy Swift. Further work on Tamasheq demography in 1982 was financed by the Population Council. An anonymous reviewer suggested the contrast between 'demography of conflict' and 'demography of conflicts' for which I am grateful.

Notes

[1] These norms can themselves been seen as a complex and dynamic product of history (including previous conflicts), culture, environment and economics.
[2] Kel Tamasheq means the people who speak Tamasheq.
[3] Eg. 32 Tamasheq killed by Peul (another pastoralist ethnic group) in 1931 in the delta (République du Mali, 1931). The Peul had managed and exploited the pastoral resources of the delta for centuries.
[4] The Tamasheq term for the ex-slave class is *iklan* but this has pejorative overtones and although still used by high status Tamasheq it is often unacceptable. The Songhay term 'Bella' is frequently used in Mali.
[5] The terminology of Bella (black) and Tuareg (red) will be used here since physical differences largely determined different Tamasheq roles and fates during the rebellion. For simplicity and because of small numbers, blacksmiths will usually be combined with the Bella although in terms of the traditional Tamasheq class groups they are 'free', not captives. Most blacksmiths are black African, they were not persecuted during the rebellion and their women have always been economically active.
[6] Bella formed a much higher proportion of the Tamasheq population in southern areas – around 50% of the Gourma and Delta populations surveyed in 1981–1982. In the far north (Kidal) Bella were rare and Tuareg women much more active.
[7] TFR between 5 and 6 compared to over 7 for other rural Malian populations.
[8] Some women were however very rich in terms of livestock ownership through inheritance, gifts and successful herd growth. Their animals though were always managed by male kin or husbands.
[9] Most people in the Mema left because there was nowhere there to hide. Further north, around Goundam and Tombouctou, some fled but others hid with their animals in the mountains and the desert. The massacres in the North were later (1993–1994) and more people fled then.
[10] Some intellectuals have clearly read the archives and quote them to researchers. It is likely they have also discussed them with other Tuareg.
[11] For full details of survey methodology see Randall (2001).
[12] A 'site' is a sedentarised community of former nomads.
[13] This idea was enunciated both by women in nomadic camps and by educated intellectuals. The latter may have been influenced by reading the colonial archives which regularly stressed Tuareg low fertility and low growth rates although with little reliable quantitative evidence.
[14] Although not necessarily sinful before marriage and in adulterous relations where there is heavy petting and possibly coitus interruptus (Nicolaisen, 1997).

Interview from the anthropological study IZ35vf03:

I: And what happens if the [married] woman gets a child with her lover?

R: It's impossible that her lover has children with her. Is that possible?... There are lots of sorts of love. The woman's body also has lots of parts. It's not just because a man follows you and courts you that you have to have children with him. As your body has lots of parts you can give him the parts which give him pleasure. It's because of this pleasure that they are united and her lover respects her because of this pleasure, but they don't need to have children.

[15] The estimated lifetime risk of maternal mortality was 1 in 8!
[16] The same was true in the 1980s.
[17] Cross cousin marriage is that between a man and either his mother's brother's daughter or his father's sister's daughter. Parallel cousin marriage is between a man and his mother's sister's daughter or his father's brother's daughter.

[18] Tamasheq child mortality may be underreported because people dislike talking about dead children, but also because of high adult female mortality. From the men's marriage histories (men 60 and under who are likely to have wives of reproductive age) marriages which ended in the death of the wife included 8.6% of all children born but 14.3% of all dead children. These children have no mother to report their births or deaths.

[19] To study this transformation in detail would be very data-demanding because of the seasonal and annual mobility of communities, households and individuals within households. It is uncertain whether the baseline data exist. Census data for nomads in Mali are grouped by administrative affiliation rather than spatial distribution and cannot take account of seasonal movement patterns and inter-annual variability.

[20] GTZ subsidised the house building, by providing free doors and windows and transporting the wood (Papandiek et al., 1999).

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