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Economic Impacts of Tourism and Erosion of the Visiting System Among the Mosuo of Lugu Lake

Siobhán M. Mattison

China's domestic tourism industry has flourished since the mid-1990s, spreading wealth and infrastructure from cities to remote villages and presenting new opportunities for cultural exchange. This paper aims to determine the financial and cultural impacts of tourism on inheritance and marital patterns of the matrilineal Mosuo of south-west China. Data from household censuses and personal interviews show that Mosuo residing in tourist-impacted areas deviate more often from traditional matrilineal norms than Mosuo residing in areas removed from tourism. Households more frequently contain bilateral descendants in tourist-impacted areas, whereas they are more often strictly matrilineal in farming areas. Marital patterns also differ more from stated norms in tourist-impacted areas. I interpret differences as adaptive responses to variation in acquired wealth, arguing that cultural assimilation alone is unlikely to account for such differences. I argue that the results are consistent with the general hypothesis that the accumulation of wealth is inconsistent with matriliney and conclude that families remain important to the Mosuo, but in ways different from before.

Keywords: Mosuo; Walking Marriage; Matriliney; Kinship; Tourism; Descent; Inheritance; Yunnan, China

Beginning in the 1990s, in the wake of the opening and reform policy, China's domestic tourism industry expanded, resulting in financial and infrastructural gains in remote areas (Zhang 1997). Subsequently, Yunnan Province in south-west China became a hot spot for ethnic tourism (Nyaupane, Morais, & Dowler 2006; Donaldson 2007), receiving some 90 million domestic tourists and 2.2 million international tourists in 2007 (Yunnan Province Statistical Bureau 2008). The present paper examines and attempts to quantify the impacts of the emerging tourism economy on

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kinship and reproduction among the matrilineal Mosuo¹ of this region. Although other scholars have noted movement away from traditional norms and customs in Mosuo areas where tourism is prevalent (e.g. Knödel 1998; Walsh 2001, 2005), the present paper provides some of the first quantitative evidence of such movement and argues that economic motivations, with additional cultural assimilation, may be important to our understanding of kinship changes among the Mosuo.

Tourism increases wealth and opportunities for cultural assimilation, both of which are potentially important drivers of social change. Isolating fully the economic as opposed to the social impacts of ethnic tourism in particular is difficult given that the vehicles for transmission of material wealth (tourists) set out specifically to exchange money for representations of cultural difference. Mosuo culture has been commodified (Walsh 2005) such that the Mosuo's financial endeavours are inextricably linked with others' perceptions of their culture. Indeed, cultural influences of tourism on kinship and marriage are likely to be particularly strong, because tourism is based, in part, on perceptions of the Mosuo as 'exotic' (e.g. Walsh 2001, 2005). On the one hand, tourists may promote adherence to traditional customs because the Mosuo meet expectations of 'exotic' customs, but on the other, tourists may view Mosuo customs as 'backward' (see below), encouraging the Mosuo to adopt more mainstream customs. Therefore, although it is clear that transfer of wealth presents opportunities for cultural assimilation, it is not entirely clear whether tourism promotes maintenance of the status quo or adoption of mainstream customs.

Historically, outsiders' perceptions of Mosuo customs have not been sufficient to account for changes in kinship and reproductive practices. The Mosuo's historical residence among minority groups with different kinship practices (e.g. the Yi, Naxi, Pumi and Tibetan minorities) has not resulted in abandonment of their matrilineal practices. Neither has communist doctrine, which paints Mosuo kinship as 'primitive', resulted historically in departures from matrilineal kinship. According to Marxist evolutionism² (for a brief overview, see Pusey 2009), social evolution proceeds in a unilineal and progressive fashion. Within this scheme, the Mosuo, who practice matrilineal descent and inheritance and engage in a non-marital system of sexual union, remain in a 'primitive' stage of evolution compared with the more 'developed' patrilineal minorities and the Han who surround them (e.g. Yan 1984; Harrell 2001; Matthieu 2003). Neither this viewpoint nor any of the three separate marriage campaigns launched to 'progress' Mosuo kinship practices has resulted in sustained departures from matrilineal customs (Shih 2000). This suggests that cultural assimilation alone is insufficient, at least within these contexts, to explain the adoption of novel kinship practices. In this paper, I argue that financial gains from the tourism industry, acting along with cultural assimilation, are inconsistent with matrilineal kinship and thus precipitate departures from customary practices. In particular, I argue that the Mosuo's response to improving economic conditions, in the absence of mediating factors, will likely result in the erosion of two key features of their traditional culture, namely matrilineality and *sese*, the visiting system.

Traditional Kinship and Reproduction

The Mosuo comprise roughly 40,000 agropastoralists of Tibeto-Burman descent and inhabit mountainous regions straddling the border of Yunnan and Sichuan Provinces in south-west China (Walsh 2005; but see Wen et al. 2004). Among the Mosuo, distinct subpopulations reckon kinship via either patriline or matriline. The focus of the present paper is on the matrilineal subpopulation³ of the Mosuo.

The matrilineal Mosuo reckon descent along the mother's line and major property items, such as houses and land, are passed collectively from one generation of matrilineal relatives to the next. Children are considered part of their mother's household and thus obtain inheritances from their mother's family. Traditional norms dictate that, under most circumstances, individuals neither marry nor change residence, but remain instead lifetime members of their natal households. Children of both sexes remain in their mother's household and unrelated men (e.g. fathers) are only visitors. It is important to note that matriarchy is neither a precondition of nor synonymous with matriliney: among the Mosuo, as among other matrilineal societies, although inheritance is passed through women, authority may nonetheless be vested in men.

Considerable attention has been given to the unusual pairing system associated with Mosuo kinship and inheritance patterns: *sese* (*zouhun* in Mandarin—'walking marriage') in its traditional form involves a man visiting his lover for sexual relations in her home at night but, the next morning, returning secretly to his natal household (Cai 2001). In contrast with marriage systems found in most other cultures, *sese* supposedly involves no explicit contract between lovers: men are not required to support their children, parents have no say in who visits whom and relations are terminated without repercussions to either party (Shih 1993, 2000; Cai 2001). Relationships may last from one night to a lifetime and multiple, concurrent relationships are permitted (Shih 1993, 2000; Cai 2001). Intensive parenting by fathers and persistent conjugal claims are considered inconsistent with matrilineal kinship owing to the tensions that inevitably arise between affinal and consanguineal relatives (Richards 1950; Fox 1983). Instead, maternal uncles traditionally bear the most responsibility for their household's children.

Subsistence, Economy and Household Labour

The Mosuo inhabit villages around Lugu Lake and in the basin areas of Yongning Township in northern Yunnan Province (Figure 1). In farming areas, the Mosuo practice subsistence agriculture as well as animal husbandry. Pigs, poultry, goats, sheep, cattle and horses are reared as sources of labour or food for consumption. Although most Mosuo subsist largely from the land, certain matrilineal households have recently started to supplement their livelihoods with income derived from ethnic tourism (Walsh 2001, 2005). The tourist-impacted region near Lugu Lake has been most affected and Mosuo living in this area have capitalised on the tourism industry. Shops, karaoke bars and restaurants have sprung up (Figure 2; Walsh 2001,

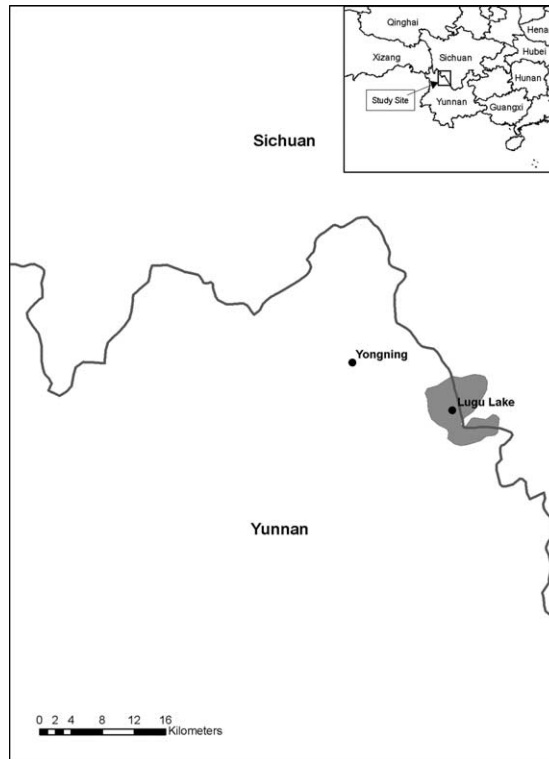


Figure 1 Matrilineal Mosuo reside in the basin area around Yongning and around Lugu Lake. The subsistence of the former is based on more traditional means on average, whereas tourist villages around the lake subsist largely from profits garnered from a thriving tourism industry.

2005) and lakeside villagers often live almost entirely off profits garnered from the tourism industry (Mattison 2006). Tourism is governed by a committee of community and government officials, which is meant to result in equal distribution of profits among households (Xing, Xia, & Dai 2009). My fieldwork indicated that there were also many opportunities for individuals to earn private income. Moreover, many tourism ventures were operated jointly with outsiders, such that, in practice, financial returns from tourism may have been difficult to regulate. Resultant disparities in household income deviate from traditional ideology (Weng 1993) and could contribute to changes in kinship and reproductive behaviour, as discussed below.

Among the Mosuo, daily tasks are generally apportioned according to age and sex (Weng 1993), although the division of labour is flexible and easily accommodates changes in the composition of the available workforce. For example, a typical Mosuo household comprises three to four generations of matrilineal relatives only. Where households lack descendants of either sex, members may be brought in by either adoption or cohabitation. Because lineage perpetuation depends on the presence of



Figure 2 A Mosuo woman readsies the tourist boats. These boats are used almost exclusively by tourists wanting to travel to various small islands within the lake. Tour groups negotiate prices in advance; profits are reportedly distributed evenly among households with members participating in tourism endeavours. Individual tourists may be seen negotiating prices with individual oarsmen and women. Photograph courtesy of Peter M. Mattison.

female descendants, a lack thereof may be considered particularly detrimental and new females may be sought to substitute for lacking heirs. Recruiting men when families lack male members is also not uncommon and not inconsistent with matrilineal ideology. Typically, men are tasked with activities requiring heavy labour, such as ploughing and digging trenches, whereas women are responsible primarily for subsistence activities, including cultivation and food processing. Thus, although men usually engage in fewer household activities than women, men's activities are critical to the functioning of the household and the absence of men is something that Mosuo seek to remedy. Other 'adoptions', such as when in the absence of a gender imbalance a man or woman marries into a household, are inconsistent with stated matrilineal ideology and are considered as evidence of departures from matrilineal norms.

Matrilineal Mosuo households tend to be large, typically ranging in size from six to twelve members (Walsh 2004) and occasionally containing over thirty members (Yan 1984; McKhann 1998). The Mosuo emphasise harmony among household members (Shih 2010) and, all else being equal, large households are preferred over small households. Courtyard houses are generally spacious (Hsu 1998), easily accommodating up to twelve individuals under most circumstances. Matrilineal ideology allows for household fissures if households become too large or if internal divisions prevent harmonious relations among members. However, fissures are generally avoided because household division is traditionally considered shameful (Shih & Jenike 2002). Thus, fissures that occur in the absence of too many members or internal conflict are also not consistent with traditional matrilineal ideology and are considered evidence of transitions away from matrilineality.

Explaining Kinship Transition

Having described the types of evidence of kinship transition to be explored, I propose several underlying reasons for departures from normative kinship practices. Household fissures are first explained as a product of tensions between individuals and their larger kinship groups. I argue that increased autonomy derived from changes in economic circumstances tips the balance in favour of egocentric kinship. Next, I propose that household inheritance shifts from daughter-exclusive to son-inclusive in accordance with shifting benefits to parents derived from differential investment in the sexes. Finally, I posit that stability in relationships is promoted by improved economic circumstances as men and women seek to maximise the welfare of genetically related offspring. I conclude this section with a brief discussion of proposed synergies between cultural diffusion and materialistic concerns in driving adaptive changes in kinship among the Mosuo.

Understanding kinship changes in societies in which kinship plays a major role in organising and directing behaviour requires an examination of factors affecting both individuals and the larger lineages of which they are members. Self-interested individuals may sometimes find themselves in conflict with the larger lineages as the latter focus on collective stability and perpetuation (van den Berghe 1979; Fox 1983; Harrell 1997; Jones 2000; Alvard 2003a; Quinlan & Flinn 2005). The needs of large kinship groups are likely to be paramount in situations that favour cooperation in general (for a review, see Smith 2003). If resources are scarce or difficult to monopolise, for example, individuals may prefer to mitigate risk via participation in reciprocal exchange among relatives. Conversely, where state institutions exist that provide assistance and resolve conflict over property rights, we can expect the roles of kinship groups to be limited (e.g. Harrell 1997). In such situations, the decision to enhance individual wellbeing can result in resistance to or even changes in group norms (e.g. Stack 1974). Among the Mosuo, a stable resource base could contribute to household fissures as individual family members become more self-sufficient. If this is true, we may expect to see an increase in the number of household fissures among Mosuo living in tourist-impacted areas, where income allows for a relatively stable resource base.

Another expected departure from matrilineal norms under the influence of a stable economic base is a shift away from matrilineal inheritance. That is, as communities become wealthier, we may expect inheritance to be passed to children of both sexes. In general, parents may be expected to bias inheritance towards whichever sex is most capable of attaining status and promoting the family's interests and visibility among the community. Thus, patrilineal inheritance is generally associated with socio-ecological contexts in which men's status and contributions to family status are paramount, whereas matrilineal inheritance is associated with a relative lack of men's resources (Aberle 1961; Holden & Mace 2003; Holden, Sear, & Mace 2003). All else being equal, we may expect Mosuo men to be affected more than Mosuo women by the transition to a market-based economy. In the first place, whereas Mosuo men

have traditionally engaged in trade, warfare (Weng 1993; Cai 2001) and migrant labour, tourism has created local employment opportunities that enable men to maintain proximity to their families, both natal and affinal. Families may be more willing to invest in sons who are likely to remain nearby. Moreover, among the Mosuo, although women often dominate in the family sphere, men are typically more important in extrafamilial affairs (Weng 1993; cf. Shih 2010). Men may have relatively more opportunities for increasing family status via their participation in entrepreneurial and political affairs in areas impacted by tourism. In this paper, inheritance is measured obliquely, by examining who resides in a given household. Because any resident household member stands to inherit a household's property, household residence may be a reasonable indicator of future inheritance prospects. At the very least, it is an indication of who draws from the current pool of resources, which may be viewed as a form of pre-mortem inheritance (e.g. Borgerhoff Mulder 1992).

In addition to changing inheritance norms, men's acquisition of status and affluence could impact the cultural practice for which the Mosuo are most famous: *sese*. At first glance, it is not obvious that men of relative affluence should prefer marriage or cohabitation to the less-restrained visiting system. Yet, cohabitation affords men (and women) a higher degree of control over their reproductive partners; if wealth is exchanged and paternity assured (Fortunato & Archetti 2009), men may choose to expend wealth on their partners' households either in addition to or at the expense of their maternal nieces and nephews. Instances of cohabitation not associated with labour or gender substitutions may then be indications of transitions away from matrilineal norms as men reside with and invest relatively more intensively in their partners and biological children.

Given that recent increases in the Mosuo's material wealth derive from tourism, cultural assimilation to outsiders' norms and practices is potentially an important driver of kinship changes. Indeed, changes in kinship spurred by increased wealth are facilitated by cultural diffusion. In general, the extent to which culture interacts synergistically with economic concerns is debated, but these influences are often not mutually exclusive (e.g. Boyd & Richerson 1985; Rogers 1988; Alvard 2003b; Richerson & Boyd 2005). Matrilineal kinship systems are known to adapt to changes in local economy (e.g. Holden et al. 2003; Holden & Mace 2003) and may do so more quickly in the presence of suitable cultural models. This paper compares characteristics of households and individuals residing in farming areas with relatively little exposure to tourism⁴ with those residing in tourist-impacted areas to examine quantitative evidence of putative deviations from matrilineal norms that accompany the transition to a market-based economy. I focus on household composition and individual pairing decisions, the former as an indication of who stands to inherit a family's property and the latter as an indication of the relative emphasis placed on a reproductive partner as opposed to one's natal kin. I further examine the relative influences of exposure to extranormative customs (i.e. cultural assimilation) and changing economic circumstances on changing kinship.

Abridged Methods⁵

This paper is based on fieldwork conducted in two phases from January to August 2008, in villages near Lugu Lake and Yongning Township⁶ in Yunnan (Figure 1). During the first phase, the research team⁷ conducted household censuses of every family claiming local residence⁸ and adherence to Mosuo traditions,⁹ a total of 177 households. One adult representative from each selected household was interviewed about household characteristics, including combined family income, property area and value, and the presence or absence of valuable goods (e.g. televisions, cars). Each informant was further asked to provide demographic information, including age, gender, occupation, income, migration and educational history, place of residence, marital status and parenthood status, for each person born in the household.

The second phase of the study involved interviewing a set of respondents about their interactions with outsiders, parenting methods and relationship history. Using household data gathered from the census, we randomly selected 151 parents for interview. If a selected respondent refused to participate, was not present after two attempts or was not contacted for some other reason, another respondent was selected by random encounter. Interviews were generally conducted privately in the respondent's home by a member of the research team in Mandarin or the local dialect, when possible, and in the local language when not. Nearly all questions were constrained choice and solicited oral responses. As much as possible, and in accordance with Mosuo taboos, we avoided discussion of relationships while relatives of the opposite sex were present (Weng 1993).

Summary descriptive statistics and simple bivariate associations are presented in this paper as preliminary evidence for or against the hypothesised change and its underlying rationale. All data are summarised as reported by participants. However, some facts must be noted for correct interpretation of certain variables. In particular, household size (Table 1) includes only the current members of a household. The number of cohabiting partners in a household includes all reproductive partners,¹⁰ whether as apparent founding members of the household or in subsequent generations. Age was measured by asking participants to indicate their birth year animal and their approximate age (e.g. 50+). Highest grade in school was often known to the year, but in some cases respondents only knew that they or a family member had or had not graduated from a given level. I have estimated grades at the lowest possible level indicated by responses. The proportion of individuals with individually earned incomes is probably an underestimate of actual incomes. Many people did not report incomes other than regular salary and may have been otherwise reluctant to report individual income due to associated stigmas on the uneven distribution of wealth.

Results

These census results include information on 1001 current residents, distributed over 177 households. The survey was completed by 151 residents of 121 households.

Table 1 Summary Characteristics of Mosuo Households According to Residence in Areas Relying on Tourism Versus Farming Economies

	Farming	Touristed	Overall
House value*** (1000 RMB)	197 (291)	916 (1,179)	502 (872)
Household income*** (RMB/month)	493 (858)	5260 (5541)	2513 (4349)
Household size ^a	5.7 (2.4)	5.8 (2.6)	5.7 (2.5)
Proportion of households with male heads*	42.2 (50.0)	24.3 (43.2)	34.7 (47.7)
No. cohabiting reproductive partners in the household ^{b§}	0.68 (0.66)	0.80 (0.49)	0.73 (0.60)
<i>n</i>	102	75	177

Note. Unless indicated otherwise, data are presented as the mean with the SD given in parentheses.

^aHousehold size refers to the number of individuals currently residing in the household and does not include individuals that were born in the household but who are now temporarily or permanently living elsewhere.

^bThe total number of cohabiting reproductive partners in one household, including both married and unmarried partners.

*** $p < .001$, ** $p < .01$, * $p < .05$ and § $p < .10$ (one-sided t tests assuming unequal variance).

Although characteristics of the survey respondents were similar overall to those of the adults indicated in the census, the proportion of surveyed males was low (0.27 in the survey compared with 0.48 available adult males). Thus, there was a rather heavy bias towards female respondents in this study, which may limit the generalisation of the results.

Household Wealth, Composition and Cohabitations

Summary statistics for Mosuo households and individuals are given in Tables 1 and 2, respectively. As suspected, reported household income is highly variable and much higher, on average, among residents of tourist-impacted regions compared with residents of farming areas (5,260 vs. 493 RMB/month, respectively). The stated worth of homes was similarly distributed, indicating that families living in tourist-impacted areas were more affluent than those living in farming areas on at least two dimensions.

Mosuo households in this sample ranged in size from one resident to a maximum of sixteen. The mean household size was similar for families living in farming and tourist-impacted areas (Table 1) at 5.7 and 5.8 members, respectively. In comparison, household composition differed significantly between the two subpopulations: the farming area had a higher frequency of matrilineal (i.e. containing the children of daughters only) households, whereas the tourist-impacted area had a much higher frequency of nuclear (i.e. parents and their children only) households (Table 3). It is entirely possible that nuclear households will eventually become matrilineal as the family progresses through its domestic cycle (Fortes 1958; Harrell 1997); however, similar average household sizes in the two areas suggests that something other than traditional mechanisms of household fissure (i.e. large size or family disputes) is contributing to household segmentation. The relative proliferation of small nuclear

Table 2 Sample Characteristics for Matrilineal Mosuo Adults (age > 17 years) According to Residence in Areas Relying on Tourism Versus Farming Economies

	Farming	Touristed	Overall
Marital Status ^{a**}			
Married	52 (11.7)	38 (12.7)	89 (12.1)
Cohabiting	127 (28.6)	100 (33.3)	227 (30.5)
Sese	158 (35.6)	70 (23.3)	228 (30.6)
Single/other	107 (24.1)	92 (30.7)	199 (26.7)
Mean (SD) no. children*	1.9 (1.9)	1.7 (1.5)	1.8 (1.7)
Highest grade in school ^b	3.9 (4.6)	4.0 (4.3)	3.9 (4.5)
Occupation**			
Business/entrepreneur	8 (1.8)	4 (1.3)	12 (1.6)
Medical/education/government	16 (3.6)	12 (4.0)	28 (3.8)
Blue collar	7 (1.6)	20 (6.7)	27 (3.7)
Unemployed/farmer	391 (88.9)	256 (85.9)	647 (87.7)
Other/retired/unknown	18 (4.1)	6 (2.0)	24 (3.7)
Mean (SD) proportion with individual incomes	0.10 (0.30)	0.12 (0.32)	0.11 (0.31)
Total no.	444	300	744
No. with occupation	440	298	738

Note. Unless stated otherwise, data show the number of individuals in each group, with percentages given in parentheses.

^a'Married' includes individuals known to be married now, in the past or in the future (i.e. engaged); 'other' includes individuals who are now separated but whose previous marital status is unknown.

^bWhere the specific grade is unknown, the minimum grade is assigned. For example, if an individual indicates that s/he graduated from elementary school, s/he is given a value of 6, although more years of education are possible.

** $p < .01$ and * $p < .05$ (means tested using one-sided t tests assuming unequal variance and frequencies tested using Fisher's Exact test).

households in tourist-impacted areas is consistent with a decreasing reliance on matrilineal kin as wealth increases.

Table 4 shows that members of Mosuo households were often brought in via cohabitation or marriage, even when a relative of the same sex was or could have otherwise been present. Indeed, more than half (i.e. fifty-six of ninety-nine) of the

Table 3 Household Composition, According to Residence in Areas Relying on Tourism Versus Farming Economies

	<i>n</i>	Matrilineal	Patrilineal	Bilateral	Nuclear
Farming	102	59 (57.8)	11 (10.8)	6 (5.9)	26 (25.5)
Touristed	75	33 (44.0)	5 (6.7)	6 (8.0)	31 (41.3)
Overall	177	92 (52.0)	16 (9.0)	12 (6.8)	57 (32.2)
<i>n</i>	354	184	32	24	114

Note. Data show the frequency of particular households within a region, with percentages given in parentheses. Composition is defined such that matrilineal households are those that include offspring of daughters only, patrilineal households are those with the offspring of sons only, bilateral households are those with offspring of both, and nuclear households consist of parents and their offspring only.

$p < .001$, Fisher's exact test.

Table 4 Number of Cohabiting Pairs Within a Household According to the Household's Prior Gender Composition

	Male in	Female in	New household	Both in	Unclear	Total
Same sex present ^a	20	12	19	3	2	56
Same sex absent	8	8	5	2	0	23
Unclear	1	0	19	0	0	20
Total	29	20	43	5	2	99

^aAn indicator of whether an individual of the same sex was present in the household prior to establishing cohabitation through in-migration.

total observed instances of cohabitation within households occurred where a member of the same sex was already present. If nuclear households are excluded, the proportion of cohabitations in households where same-sex relatives were already present is even higher. Thus, cohabitation patterns also seem to evince deviations from stated matrilineal ideology.

Erosion of *Sese* in Areas Impacted by Tourism

Table 2 lists summary statistics for all resident adults included in the census. There are significant differences by residence in occupation, number of children and marital status, whereas residence is not significantly associated with the highest grade in school or the proportion of people reporting individually earned incomes. Differences in occupation seem to derive from higher employment levels overall in the tourist-impacted area, where the excess seems to spill mostly into 'blue collar' positions, including road workers, gardeners and security guards. As expected, the frequency of engaging in marital or cohabiting unions was higher for Mosuo living in tourist-impacted areas than those living in farming areas. Conversely, the proportion of individuals who were either single or in stable *sese* relationships was higher among participants from farming areas. Across all areas, there was an association between marital status and individually earned income (Table 5). Indeed, the proportion of marriages was nearly five-fold higher for individuals with incomes compared with those without. Even among those with no income, cohabitation was quite common

Table 5 Marital Status According to Whether an Individual Reported an Income

	Total	Married	Cohabiting	<i>Sese</i>	Single/other
No income	664	57 (8.6)	209 (31.5)	215 (32.4)	183 (27.6)
Has income	79	32 (40.5)	18 (22.8)	13 (16.5)	16 (20.3)
Total	743	89	227	228	199

Note. Unless noted otherwise, data show the number of individuals in each group, with percentages given in parentheses. Marital status includes individuals ever in a given category. Thus, for example, someone who is currently married, is divorced but was married or is currently engaged would be classified as 'married'.

$p < .001$, Fisher's exact test.

(31.5 per cent), but those reporting income were more likely to report being involved in any relationship compared with those reporting no income.

Differing marital practices based on income as reported here support the idea that the pairing system is inconsistent with an emerging market economy. Given that much of the difference seems to derive from marriage per se, it is worth noting that the Chinese government typically prefers marriage over non-marital partnerships for individuals it employs¹¹ (Bullough & Ruan 1994). Although this could lead to a spurious relationship between income and preference for marriage and cohabitation, I do not believe, in this case, that affluent individuals' preferences to marry were inconsistent with the government's preferences. The survey indicates that only approximately one-third (i.e. ten of twenty-nine) of married respondents married because they felt required to do so; almost as many (i.e. eleven) reported that personal inclination led them to marry.

Cultural Transmission of Kinship

Table 6 shows that survey respondents from tourist-impacted areas did, indeed, have more frequent contacts with individuals outside their own communities. However, topics discussed with individuals from outside the community differed significantly from those discussed with other Mosuo. For example, whereas 113 individuals (75 per cent) indicated that they frequently discussed family issues with other Mosuo, only thirty-four (23 per cent) indicated that they did so with Han friends and visitors. This same trend applies to discussions of relationships and education. Moreover, 90% ($n=135$) of participants watched television on a daily basis, so differences in attitudes and behaviour are not likely to be explained by passive transmission of non-matrilineal ideology through television. Educational differences are another potential venue through which such transmission may occur (Blumenfield 2003), but respondents in both areas showed similar levels of education (Table 2). Thus, something either beyond or in addition to passive cultural transmission is likely contributing to differences in kinship structures, as evidenced by the variables considered here.

Table 6 Sources of Cultural Transmission and Encounters, According to Residence in Touristed Versus Farming Areas

Personal contacts	Farming	Touristed
Mosuo	71 (100%)	80 (100%)
Han	27 (38%)	70 (90%)
Pumi	11 (16%)	37 (48%)
Other minorities	6 (8.5%)	18 (23%)
Foreigners	0 (0%)	2 (3%)

Note. Data show the number of people reporting contacts on a weekly or more frequent basis, with percentages given in parentheses. Percentages differ slightly due to missing data.

Discussion

I have argued that increased individual access to resources is associated with diminished importance of the kinship group in organising behaviour, a shift away from matrilineal inheritance and erosion of *sese*, the non-conjugal visiting system. The evidence presented here is largely consistent with these hypotheses. Respondents in tourist-impacted areas showed more deviation from matrilineal ideology in terms of household composition and preference for marriage, trends that seem to be associated more with wealth than with cultural assimilation.

These findings have interesting implications for our understanding of kinship, tourism and the Mosuo's practices more generally. With respect to the latter, factors contributing to reproductive preferences are particularly informative because *sese* may be understood as a flexible adaptation to prevailing circumstances rather than as an unchanging, fossil-like behavioural vestige (e.g. Yan 1984; see also Harrell 2001, Mathieu 2003, Pusey 2009). Moreover, linking increased reproductive commitment to socioecological factors such as wealth helps reorient the question of whether marriage is, indeed, a human universal (e.g. Shih 2000) required of all families (Cai 2001; cf. Walsh 2008) to one that asks when people of any population will choose to marry. This discussion places the Mosuo back within the range of variation among human families and reproductive practices: where they were once considered a behavioural outlier for their non-marital customs (Harrell 2002), they may now be understood as coping with aspects of their environment according to whether they allow for male accumulation of resources.

As *sese* becomes less common, it is possible that it will have an effect on the very thing that initiated its decline: tourism. The tourism industry that provides the foundation for economic change among the Mosuo has been driven largely by tourists' desire to glimpse, or even partake in, *sese* (Walsh 2001, 2005). If the tourism industry is responsible for improving economic circumstances, it is likely that the Mosuo will want to preserve at least the outward appearance of the cultural traditions that have captured tourists' interest. Without wishing to repeat an excellent analysis of the tensions that arise between internal and external representations of Mosuo culture (Walsh 2001, 2005), I note here that the appearance of engaging in free romantic relationships may be more important than its actual occurrence. Levels of marriage and cohabitation here not only support the hypothesis that wealth is associated with more committed relationships, but seem to suggest that both have existed in higher proportions, perhaps, than previously thought. Previous accounts indicated, for example, that marriage is fundamentally absent among the Mosuo (Shih 2000; Cai 2001; but see Johnson & Zhang 1991), with one survey suggesting that some 75 per cent of Mosuo engage exclusively in *sese* (Xu 1998, cited in Wen et al. 2004; see also Shih 2010). In contrast, I find much higher levels of marriage and cohabitation and a correspondingly lower incidence of *sese*.

I have proposed a number of specific reasons underlying the observed differences in marital and inheritance practices. In particular, I have speculated that tourism

wealth among the Mosuo has led to increased opportunities for men, and that such opportunities contribute to more bilateral inheritance practices and increasingly stable partnerships between men and women. Evidence for the latter is apparent in marriage practices that differ among residents in tourist-impacted as opposed to traditional areas, whereas evidence for the former is indirect, namely differences in household composition according to area of residence. These findings are consistent with other studies that have shown that changes in residence precede and predict changes in inheritance practices (Jordan, Gray, Greenhill, & Mace 2009) and that men lacking resources or engaged in activities away from their homes may fail to invest in their families, resulting in matrifocality, in which females rely on matrilineal kin for support (e.g. Brown 1970; Stack 1974; Holden & Mace 2003; Leonetti, Nath, Hemam, & Neill 2004; Quinlan 2006).

The emphasis on men in this analysis is not meant to downplay the agency of women in family decision making; indeed, recent evidence suggests that women's characteristics, including those of their extended families, play an equally important role in determining a family's structure and activities (Leonetti, Nath, & Hemam 2007; see also Smuts 1995).

In this paper, I emphasise the role of acquired wealth in driving changes in kinship practices. Because wealth is accompanied by cultural transmission in the context of ethnic tourism, it is difficult to isolate the effects of either in generating kinship changes. However, cultural transmission alone is probably not sufficient to explain the patterns seen here. That more than 70 per cent of Mosuo report interacting with Han Chinese on a weekly or more frequent basis indicates the pervasive integration of the Mosuo with individuals previously classed as outsiders. At the same time, the pervasiveness of such interactions means that their limited variation cannot explain fully variation in kinship practices. Indeed, although the Mosuo have long been subject to the influence of outsiders, until now such influences have not been associated with dramatic kinship changes.¹² Nonetheless, the emphasis on material resources is not meant to downplay the importance of cultural assimilation. Indeed, it is likely that transmission of cultural ideology has facilitated the uptake of different kinship practices among the Mosuo. If wealth acts to facilitate the uptake of cultural information by shifting its relevance, as I argue here, it suggests that agency in decision making may be greater than often portrayed in situations of passive cultural assimilation.

In speculating that the role of kinship is changing among the Mosuo, I do not mean to de-emphasise the continuing importance of family overall. Kinship inevitably changes as state institutions begin to provide services that were formerly provided by families. However, this does not mean that families become insignificant, just that specific roles are likely to change. As we well know, families are complicated—this paper attempts to simplify, describe and explain some of the complexities of family transition in times of economic change using quantitative ethnographic methods. In doing so, I hope to paint a more nuanced picture of the Mosuo's practices, contributing to a growing body of literature that emphasises variation in cultural

practices that can nonetheless be understood as arising from common underlying principles. This report is quantitative, but not by any means conclusive, and I hope that it will stimulate new discussions and new understandings of human family variation.

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Notes

- [1] The Mosuo are also known as the Yongning Naxi, Moso, Naze and Na. In Yunnan, they are officially a sub-branch of the Naxi, whereas in Sichuan they are officially Mongolian (for interesting discussions of the historical reasons for this nomenclature, see Harrell 2001; Mathieu 2003). In their own language, they refer to themselves as Na, whereas in Chinese they are referred to as Mosuo. As yet, there is no standard appellation in the ethnographic literature—I use the term ‘Mosuo’ as an outsider in accordance with Mosuo customs.
- [2] This is in direct contrast with the kind of evolutionary theory invoked in this paper and ultimately attributable to Darwin. Modern evolutionary anthropologists do not view human social behaviour as an outcome of a fixed evolutionary trajectory, but rather as flexible responses to prevailing socioecological conditions (e.g. Smith 2000). Thus, matrilineality is adaptive in certain contexts and not others (e.g. Holden & Mace 2003) and, hypothetically, could evolve from patrilineality (cf. Quinlan 2006).
- [3] See Shih (1993) for a discussion of the differences between matrilineal and patrilineal subpopulations of Mosuo.
- [4] Although farming areas are relatively unexposed to tourism, efforts are currently underway to bring tourists to villages distant from the lake. At the time of my studies, these efforts were preliminary. Thus ‘farming’ is used to denote a relatively ‘traditional’ way of life (i.e. one that is relatively unaffected by tourism).
- [5] For a comprehensive description of the methods and justification, see Mattison (2010).
- [6] The names of actual villages and other identifying information are undisclosed to protect the privacy of the respondents.
- [7] In each case, the research team included two Americans and a local Mosuo assistant. For one 2-week portion of the study for which a local assistant was not available, a young Han

woman assisted with translation. Although it is possible that her status as an outsider (and Han Chinese) influenced the responses obtained, it is not clear whether responses would have been more or less candid. Given that most of the interviews were conducted with the assistance of a local Mosuo, I do not believe this presents a major problem for this analysis, but there may be some bias nonetheless.

- [8] Initially, we intended to survey all Mosuo households, not just those claiming long-term residence in the area. Our guide excluded these households from the census because he did not consider them *bendi ren*—long-term local inhabitants. In retrospect, we believe that these exclusions were in line with the purposes of this study: we wanted to investigate how an emerging market economy affected traditional Mosuo beliefs. Long-term inhabitants presumably had similar durations and levels of exposure to outsiders where migrants generally arrived from remote areas where exposure to outsiders would have been minimal. To my knowledge, only three such families resided in the censused area at the time of the study; thus, their exclusion is not likely to have substantially altered the main results of this study, even if their cases could have been informative in other ways.
- [9] Individuals claiming Mosuo identity appealed to tradition rather than genealogical lineage as evidence. The purpose of the present study was to examine transitions from matriliney per se, not as transition may be experienced by a particular ethnic group. Given historical interactions between Mosuo and other minority groups, especially the Pumi, and cultural similarities among such groups, self-reported identification as Mosuo was taken to be a reliable indicator of matrilineal ideology.
- [10] It was often difficult to assess in retrospect whether cohabitations arose from males or females moving into an established household. Where this could be gleaned, it was based on the assumption that lineal household members resided with their siblings and matrilineal cousins. In cases where relatives of either cohabiting member were not present in the same household or former households not indicated, the sex of the in-moving member was unclear and is listed as such in Table 4.
- [11] Thanks to Tami Blumenfield for pointing this out to me.
- [12] It is worth noting here that the Mosuo's influence on outside groups was often as strong as that on them. Many Pumi residents, in particular, have adopted Mosuo matrilineal practices and *sese*—this argues against a unilineal, progressive social evolutionary trajectory.

References

- Aberle, D. (1961) 'Matrilineal descent in cross-cultural perspective', in *Matrilineal Kinship*, eds D.M. Schneider & K. Gough, University of California Press, Berkeley, CA, pp. 655–727.
- Alvard, M. (2003a) 'Kinship, lineage identity, and an evolutionary perspective on the structure of cooperative big game hunting groups in Indonesia', *Human Nature*, vol. 14, pp. 129–63.
- Alvard, M. (2003b) 'The adaptive nature of culture', *Evolutionary Anthropology*, vol. 12, pp. 136–49.
- Blumenfield, T. (2003) 'Na education in the face of modernity', in *Proceedings of the III Symposium on MMSEA, 25–28 August 2002, Lijiang, P. R. China*, eds X. Jianchu & S. Mikesell, Yunnan Science and Technology Press, Kunming, pp. 487–94.
- Borgerhoff Mulder, M. (1992) 'Reproductive decisions', in *Evolutionary Ecology and Human Behavior*, eds E. A. Smith & B. Winterhalder, Aldine de Gruyter, New York, pp. 339–74.
- Boyd, R. & Richerson, P. J. (1985) *Culture and the Evolutionary Process*, University of Chicago Press, Chicago.
- Brown, J. K. (1970) 'Economic organization and the position of women among the Iroquois', *Ethnohistory*, vol. 17, pp. 151–67.
- Bullough, V. L. & Ruan, F. F. (1994) 'Marriage, divorce, and sexual relations in contemporary China', *Journal of Comparative Family Studies*, vol. 25, no. 3, pp. 383–93.
- Cai, H. (2001) *A Society Without Fathers or Husbands: The Na of China*, Zone Books, New York.

- Donaldson, J. A. (2007) 'Tourism, development, and poverty reduction in Guizhou and Yunnan', *The China Quarterly*, vol. 190, pp. 333–51.
- Fortes, M. (1958) 'Introduction', in *The Developmental Cycle in Domestic Groups*, ed. J. Goody, Cambridge University Press, Cambridge, pp. 1–14.
- Fortunato, L. & Archetti, M. (2009) 'Evolution of monogamous marriage by maximization of inclusive fitness', *Journal of Evolutionary Biology*, vol. 23, pp. 149–56.
- Fox, R. (1983) *Kinship and Marriage: An Anthropological Perspective*, Cambridge University Press, Cambridge.
- Harrell, S. (1997) *Human Families*, Westview Press, Boulder, CO.
- Harrell, S. (2001) *Ways of Being Ethnic in Southwest China*, University of Washington Press, Seattle, WA.
- Harrell, S. (2002) 'Book review. A society without fathers or husbands: the Na of Southwest China', *American Anthropologist*, vol. 104, no. 3, pp. 982–3.
- Holden, C. J. & Mace, R. (2003) 'Spread of cattle led to the loss of matrilineal descent in Africa: A coevolutionary analysis', *Philosophical Transactions of the Royal Society of London, Series B, Biological Sciences*, vol. 270, no. 1532, pp. 2425–33.
- Holden, C., Sear, R. & Mace, R. (2003) 'Matriliney as daughter-biased investment', *Evolution and Human Behavior*, vol. 24, no. 2, pp. 99–112.
- Hsu, E. (1998) 'Moso Naxi House', in *Naxi and Moso Ethnography*, eds M. Oppitz & E. Hsu, Völkerkundemuseum der Universität Zürich, Zürich, pp. 67–103.
- Johnson, N. E. & Zhang, K.-T. (1991) 'Matriarchy, polyandry, and fertility amongst the Mosuos in China', *Journal of Biosocial Science*, vol. 23, pp. 499–505.
- Jones, D. (2000) 'Group nepotism and human kinship', *Current Anthropology*, vol. 41, no. 5, pp. 779–809.
- Jordan, F. M., Gray, R. D., Greenhill, S. J. & Mace, R. (2009) 'Matrilocal residence is ancestral in Austronesian societies', *Proceedings of the Royal Society, Series B*, vol. 276, no. 1664, pp. 1957–64.
- Knödel, S. (1998) 'Yongning Mosuo kinship and Chinese state power', in *Naxi and Moso Ethnography*, eds M. Oppitz & E. Hsu, Völkerkundemuseum der Universität Zürich, Zürich, pp. 47–67.
- Leonetti, D. L., Nath, D. C., Hemam, N. S. & Neill, D. B. (2004) 'Do women really need marital partners for support of their reproductive success? The case of the matrilineal Khasi of N. E. India', *Research in Economic Anthropology*, vol. 23, pp. 151–74.
- Leonetti, D. L., Nath, D. C. & Hemam, N. S. (2007) 'In-law conflict: Women's reproductive lives and the roles of their mothers and husbands among the matrilineal Khasi', *Current Anthropology*, vol. 48, no. 6, pp. 861–90.
- Mathieu, C. (2003) *A History and Anthropological Study of the Ancient Kingdoms of the Sino-Tibetan Borderland—Naxi and Mosuo*, The Edwin Mellen Press, Lewiston, NY.
- Mattison, S. M. (2010) *Demystifying the Mosuo: The Behavioral Ecology of Kinship and Reproduction of China's 'Last Matriarchal Society'*, PhD Thesis, Department of Anthropology, University of Washington.
- McKhann, C. F. (1998) 'Naxi, Rerkua, Moso, Meng', in *Naxi and Mosuo Ethnography*, eds M. Oppitz & E. Hsu, Völkerkundemuseum der Universität Zürich, Zürich, pp. 23–47.
- Nyaupane, G. P., Morais, D. B. & Dowler, L. (2006) 'The role of community involvement and number/type of visitors on tourism impacts: A controlled comparison of Annapurna, Nepal, and Northwest Yunnan, China', *Tourism Management*, vol. 27, no. 6, pp. 1373–85.
- Pusey, J. (2009) 'Global Darwin: Revolutionary road', *Nature*, vol. 462, pp. 162–3.
- Quinlan, R. J. (2006) 'Gender and risk in a matrifocal Caribbean community: A view from Behavioral Ecology', *American Anthropologist*, vol. 108, pp. 464–79.
- Quinlan, R. J. & Flinn, M. V. (2005) 'Kinship, sex, and fitness in a Caribbean community', *Human Nature*, vol. 16, no. 1, pp. 32–57.

- Richards, A. (1950) 'Some types of family structure among the Central Bantu', in *African Systems of Kinship and Marriage*, ed. A. R. Radcliffe-Brown, Oxford University Press, Oxford, pp. 205–51.
- Richerson, P. & Boyd, R. (2005) *Not by Genes Alone: How Culture Transformed Human Evolution*, University of Chicago Press, Chicago.
- Rogers, A. R. (1988) 'Does biology constrain culture?', *American Anthropologist*, vol. 90, no. 4, pp. 819–31.
- Shih, C. (1993) *The Yongning Moso: Sexual Union, Household Organization, Gender and Ethnicity in a Matrilineal Duolocal Society in Southwest China*, PhD Thesis, Department of Anthropology, Stanford University.
- Shih, C. (2000) 'Tise and its anthropological significance: Issues around the visiting sexual system among the Moso', *L'homme*, vol. 154–155, pp. 697–712.
- Shih, C. (2010) *Quest for Harmony: The Moso Traditions of Sexual Union & Family Life*, Stanford University Press, Stanford, CA.
- Shih, C. & Jenike, M. R. (2002) 'A cultural–historical perspective on the depressed fertility among the matrilineal Moso in Southwest China', *Human Ecology*, vol. 30, no. 1, pp. 21–47.
- Smith, E. A. (2000) 'Three styles in the evolutionary study of human behavior', in *Human Behavior and Adaptation: An Anthropological Perspective*, eds L. Cronk, N. Chagnon & W. Irons, Aldine de Gruyter, Hawthorne, NY, pp. 27–46.
- Smith, E. A. (2003) 'Human cooperation: Perspectives from behavioral ecology', in *Genetic and Cultural Evolution of Cooperation*, ed. P. Hammerstein, MIT, Cambridge, MA, pp. 401–28.
- Smuts, B. (1995) 'The evolutionary origins of patriarchy', *Human Nature*, vol. 6, no. 1, pp. 1–32.
- Stack, C. (1974) *All our Kin: Strategies for Survival in a Black Community*, Harper & Row Publications, New York.
- Van den Berghe, P. L. (1979) *Human Family Systems: An Evolutionary View*, Elsevier, New York.
- Walsh, E. (2004) 'The Na', in *Encyclopedia of Sex and Gender: Men and Women in the World's Cultures, Human Relations Area Files*, ed. C. R. Ember & M. Ember, Kluwer and Plenum, New York, pp. 697–706.
- Walsh, E. (2005) 'From Nü to Nü'er Guo: Negotiating desire in the land of the Mosuo', *Modern China*, vol. 31, no. 4, pp. 448–86.
- Walsh, E. (2008) 'A society without fathers or husbands: The Na of China (Review)', *American Ethnologist*, vol. 29, no. 4, pp. 1043–5.
- Walsh, E. R. (2001) *The Mosuo—Beyond the Myths of Matriarchy: Gender Transformation and Economic Development*, PhD Thesis, Department of Anthropology, Temple University.
- Wen, B., Shi, H., Ren, L., Xi, H., Li, K., Zhang, W., Su, B., Si, S., Jin, L. & Xiao, C. (2004) 'The origin of Mosuo people as revealed by mtDNA and Y chromosome variation', *Science in China*, vol. 47, no. 1, pp. 1–10.
- Weng, N. (1993) *The Mother House: The Symbolism and Practice of Gender Among the Naze in Southwest China*, PhD Thesis, Department of Anthropology, University of Rochester.
- Xing, Y., Xia, Z. & Dai, J. (2009) 'Conservation and tourism development of house settlements in Mosuo matriarchate in Lugu Lake', *Frontiers of Architecture and Civil Engineering in China*, vol. 3, no. 2, pp. 204–10.
- Xu, J. (1998) 'Study on folk culture of Mosuo people', *Yunnan Geographic Environment Research*, vol. 10, pp. 89–95.
- Yan, R. (1984) 'A living fossil of the family: A study of the family structure of the Naxi nationality in the Lugu Lake region', *Social Sciences in China*, vol. 3, no. 4, pp. 60–83.
- Yunnan Province Statistical Bureau. (2008) *Yunnan Statistical Yearbook*, China Statistics Press, Beijing.
- Zhang, W. (1997) 'China's domestic tourism: Impetus, development and trends', *Tourism Management*, vol. 18, no. 8, pp. 565–71.