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Caste, Culture, and the Status and Well-Being of Widows in India

Robert Jensen

11.1 Introduction

Issues in aging are becoming of increasing importance in India. While this may seem paradoxical because of the low life expectancy (about sixty-four years for women and men), these numbers are somewhat misleading because they reflect in part very high infant mortality rates. Conditional on surviving to age sixty, male life expectancy in India is about sixteen years for men and seventeen years for women (Irudaya Rajan, Mishra, and Sankara Sarma 1999), which is not much less than the eighteen to twenty years for most developed countries. India currently has the world's second largest population of elderly persons, with over 70 million persons aged sixty or above (though India still has a relatively young population, in that this represents only about 7 percent of the total population). This population is projected to grow to about 160 million within two decades, which will represent about 12 percent of the total population at that time. Thus, the elderly present an extremely large and rapidly growing population in India.

Research on the elderly in India has increasingly focused on the well-being of widows in particular (Chen 2000; Drèze and Srinivasan 1997; Chen and Drèze 1995). About 55 percent of women aged sixty and above are widowed, compared to about 15 percent widowers among men (Irudaya Rajan, Mishra, and Sankara Sarma 1999); this difference reflects in

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part the large husband-wife age gap (six years) as well as a greater incidence of remarriage among widowers compared to widows. Widowhood is generally thought to represent a particular economic vulnerability for women. In rural areas, most earnings opportunities involve strenuous physical labor, such as in agriculture, which becomes increasingly difficult with age. Caste norms also often discourage women, and widows in particular, from working, and in many cases women face difficulties in retaining control of their husband's land upon his death. Further, private pensions are not common, and there is little in the way of public support for the elderly.[1] Drèze and Srinivasan (1997) find that, even with a range of adjustments for equivalence scales, widows are no more likely to live in poverty than nonwidows, but because widows tend to live in households with fewer members, even small adjustments for economies of scale result in widows' being significantly worse off than average. However, almost all studies of the well-being of the elderly are unable to examine the distribution of resources within households, using household income or expenditure per capita as a proxy for the resources available to the elderly person, and there is ample evidence to suggest that widows often do not receive an equal share within the household (Chen 2000).

Beyond the economic difficulties faced by widows, authors have also pointed to social, cultural, and political limitations widows often encounter. For example, Chen (2000) points out that social mores often discourage widows from remarriage and dictate changes in their diet and behavior, and widows are often unwelcome at social events and religious festivals and avoided by others because they are considered bad luck. More generally, there are a variety of customs, norms, practices, beliefs, and institutions that affect the economic, social, and political opportunities and the social status of the elderly, especially widows (the most infamous, though perhaps least widespread, of which is *sati,* or self-immolation on the husband's cremation pyre). These practices are important not just because of the economic constraints they may place on widows, but in their own right as well, as part of a broader conception of well-being that expands beyond purely economic terms (e.g., Sen 1999).

In this paper, we examine how these norms, attitudes, and practices vary

1. In principle, public support for the elderly is a joint responsibility of the state and national governments. There is a national pension scheme for impoverished elderly persons aged sixty-five or older. Coverage is not extensive, eligibility is limited to only persons with no surviving sons and below a (very low) income threshold, and states have statutory maximum outlays. As a result, very few elderly persons participate. For example, Chen (2000) finds that only 10 percent of widows in her sample, and 23 percent of those with no adult sons, receive pensions. Pension levels are low, typically about 100 rupees (about U.S. $2) per month, though some states have supplemental programs. There is a mandatory pension system for firms with more than twenty employees and a separate system for civil servants. However, about 90 percent of all workers are in the uncovered, informal sector (though a few states have implemented limited schemes for this sector).

across groups in India and how they affect the well-being of the elderly. We first examine the influence of caste on well-being. Caste is a social organization prevalent in India that creates a well-defined social ordering (see appendix for a brief note about caste). Caste is highly correlated with other measures of socioeconomic status (SES), with those from higher castes typically better off along most dimensions than those from lower castes. Castes also differ in terms of behavior, practices, and norms; most relevant for the present case, higher castes often place *more* restrictions on and assign lower status to women, and widows in particular. Thus, caste offers two potentially opposing influences on the well-being of women. Our objective is to examine the net consequences for widows, using indicators for individual nutritional status and health rather than relying on household income or expenditure per capita.

The second theme of this paper is examining whether social and cultural institutions and the status of widows have any underpinnings in economic factors. In particular, we explore whether the presence in the village of residence of crops for which women and the elderly are likely to have a comparative advantage, namely those that are less strength intensive (i.e., crops not based on draft plough agriculture), means that women and the elderly are able to make larger economic contributions (and have improved opportunities outside the household) and thus the status and treatment of widows, and women more generally, will be more favorable. This exercise also carries larger lessons about the potential role of economic factors in the determination and evolution of social or cultural institutions and practices.

11.2 Widowhood and Remarriage

Before beginning the analysis, it is useful to explore the broad patterns relating to widowhood and remarriage across various groups. To do so, we make use of data from the 1998–99 National Family Health Survey (NFHS),[2] a nationally representative survey of 90,303 ever-married women aged fifteen to forty-nine (which can be weighted to generate statistics representative at the state and national levels). The survey collects data on a range of demographic, social, and (to a lesser extent) economic variables for the household and its various members, as well as a village-level survey with information on agricultural, economic, and social conditions and infrastructure. These data do not contain a great deal of detail on elderly persons, but data from the household roster can be used to describe the patterns of widowhood.

2. The NFHS is the Indian implementation of the Demographic and Health Surveys (DHS; now Measure DHS). The data, questionnaires, and additional information are available at http://www.measuredhs.com.

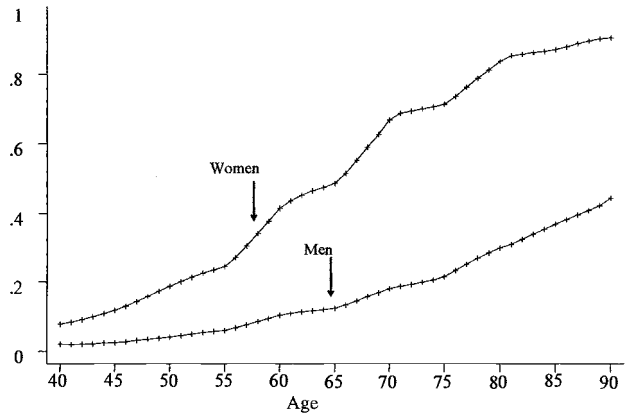

Fig. 11.1 Current widowhood by age
Source: NFHS 1988–89.

Figure 11.1 shows NFHS data on the incidence of *current* widowhood by age for men and women. At all ages the incidence is much higher for women than men. About 40 percent of women aged sixty are widowed compared to 12 percent of men, and the gap grows to 69 and 19 by age seventy. The large disparity at each age is the result of the large average husband-wife age gap (six years) and the greater incidence of remarriage among men.[3] Despite popular perception, remarriage is not prohibited by any caste or religious group in India (Chen 2000). Unfortunately, the NFHS only collects more information on marital histories for female respondents aged fifteen to forty-nine, including whether they have had a previous marriage (but not separately indicating whether the first marriage ended due to marriage or divorce).[4] We focus on women aged forty-five to forty-nine, to capture the oldest population available. Table 11.1 shows data on the incidence of widowhood and remarriage, disaggregated by religious and caste groupings. The data reveal that 15 percent of women of this age have ever been widowed or divorced, and 11 percent of ever-widowed/divorced women are currently married. The greatest incidence of ever-widowhood is among women of scheduled tribes, at nearly one in five.

3. Very few data sets, and no national-level data sets, collect information on remarriage. However, a few studies for specific villages or regions have collected this information. For example, Chen's (2000) sample reveals a remarriage rate of 10 percent among widows, while Drèze (1990) finds 15 to 20 percent. Agarwala (1970) finds that 60 percent of widowers in Delhi remarry, compared to 37 percent for women, and United Nations (1961) estimate the rates at 60 and 10 percent respectively in rural Mysore (Karnataka). Bhat and Kanbargi (1984) estimate 63 and 34 percent remarriage rates for men and women across all India, using information on current marital status and applying a cohort-based inferential technique to census data.

4. However, divorce is not very common in India, significantly less so than widowhood.

Table 11.1 Widowhood and remarriage, women aged 45–49 (%)

	Ever widowed	Ever widowed and remarried	Currently widowed
All India	.15	.11	.13
	(.01)	(.01)	(.01)
Scheduled tribe	.18	.21	.14
	(.01)	(.03)	(.01)
Scheduled caste	.16	.11	.14
	(.01)	(.02)	(.01)
Other backward caste	.15	.11	.13
	(.01)	(.02)	(.01)
Forward caste	.12	.07	.11
	(.01)	(.01)	(.01)
Muslim	.15	.17	.13
	(.01)	(.03)	(.01)
Christian	.18	.19	.15
	(.02)	(.04)	(.01)

Source: Author's calculation from the NFHS.

Notes: Standard errors in parentheses. The NFHS data only indicate whether a woman has been previously married, and do not indicate whether the first marriage ended due to widowhood or divorce. However, divorce is very uncommon in India.

Reflecting underlying economic differentials, there is a gradient by caste, with the higher (forward) castes having only two-thirds the widow rate of the scheduled tribes. However, the rate of remarriage is significantly higher for the scheduled tribes, at nearly three times the rate among the higher castes, and almost twice that of scheduled castes and other backward castes (OBCs). Thus, in terms of current widowhood, there is not a significant gradient by caste. Muslims and Christians have similar widowhood and remarriage rates as the scheduled tribes.

For Hindus, within castes,[5] two general factors are thought to affect the likelihood of remarriage. First, the likelihood of remarriage (and social approval of remarriage) declines with age, and becomes extremely rare after age forty. An additional important factor is whether the woman has had any children, in particular sons, in her first marriage. In general, even controlling for age, those who have no children and especially no sons will be more likely to remarry. This distinction is motivated in part by choice (for example, a woman may fear a new husband would treat her children poorly, or she may feel less of a need to remarry because the son can help support her) and in part by constraint (no one will remarry a widow with children, or society may not condone it). The NFHS data reveal that conditional on having been ever widowed or divorced, having had a child from

5. There is a limited notion of caste among Muslims in India, even more limited among Christians. However, caste for non-Hindus is often much less overt and does not connote the same divisions as among Hindus.

the first husband decreases the likelihood of remarriage by about 43 percent, and conditional on having had a child, women with at least one son are 23 percent less likely to remarry than women with only daughters (results not shown).

11.3 Socioeconomic Status, Caste, and Well-Being

Given the widespread incidence of widowhood, especially among older women, it is important to examine the well-being of widows. Unfortunately, the NFHS provides only very limited data on SES; while there is some information on employment status and assets owned, there is no information on income or expenditure. Further, even if household income were available, the measurement of poverty among the elderly is very sensitive to assumptions on economies and scale and costs of children (Deaton and Paxson 1998), as well as assumptions on the intrahousehold allocation of resources. However, as an initial investigation, the NFHS data do provide information on whether individuals work, either outside the household for pay or in self-employment. Table 11.2 provides information on female employment for both widows and nonwidows aged forty-five to forty-nine, with a distinction drawn between land-owning and landless households. Female employment rates among nonwidows are low overall, at 20 percent among those owning land and 40 percent among the landless. In general, employment rates are higher among the scheduled tribes and castes relative to the OBCs and forward castes (even though land ownership is highest among the scheduled tribes). For all castes and reli-

Table 11.2 **Employment among women aged 45–49, by widowhood status, NFHS**

	Nonwidows			Widows		
	Work for pay	Own land	Work for pay (landless)	Work for pay	Own land	Work for pay (landless)
All India	.20	.52	.40	.39	.43	.48
	(.01)	(.01)	(.02)	(.01)	(.01)	(.05)
Scheduled tribe	.29	.72	.43	.53	.60	.54
	(.01)	(.01)	(.02)	(.04)	(.04)	(.05)
Scheduled caste	.31	.44	.35	.50	.34	.43
	(.01)	(.03)	(.01)	(.03)	(.03)	(.01)
Other backward caste	.21	.58	.26	.43	.45	.47
	(.01)	(.01)	(.01)	(.02)	(.02)	(.03)
Forward caste	.14	.52	.24	.30	.46	.32
	(.01)	(.01)	(.01)	(.02)	(.02)	(.02)
Muslim	.11	.42	.14	.23	.31	.30
	(.01)	(.01)	(.01)	(.03)	(.03)	(.04)
Christian	.33	.47	.41	.43	.36	.48
	(.01)	(.01)	(.02)	(.04)	(.04)	(.06)

Source: Author's calculation from the NFHS.

Table 11.3 **Expenditure per capita, body mass index (BMI) and caste, widows and nonwidows, SARI**

	Expenditure per capita		BMI	
	Nonwidows	Widows	Nonwidows	Widows
Scheduled tribe	323	251	18.9	19.1
	(193)	(213)	(.48)	(.57)
Scheduled caste	424	348	19.3	19.4
	(131)	(159)	(.32)	(.38)
Other backward caste	593	502	19.5	19.3
	(110)	(201)	(.32)	(.34)
Forward caste	715	577	20.6	19.4
	(198)	(228)	(.58)	(.51)

Source: Author's calculations from SARI data.

gious groups, employment rates are higher among women currently widowed, for both landed and landless households. Over one-half of widowed scheduled tribe women work, compared to only one-third among the forward castes (though, in percentage terms, the difference between nonwidows and widows is greater for the forward castes). Of course, selection into widowhood is nonrandom,[6] and that selection may differ across these groups, and we don't have panel data to examine the prewidow employment rates of current widows. Therefore, these results should only be seen as descriptive and suggestive.

For a more in-depth investigation of the relationship between caste and well-being, we apply data from the Survey of Aging in Rural India (SARI), a survey of 1,477 households, each containing a person aged fifty or older, conducted by the author in 2002 in five states or Union Territories (Delhi, Jharkhand, Haryana, Kerala, and Tamil Nadu).[7] Several sections of this survey were modeled to be compatible with other demographic surveys for India, including the NFHS. The survey collected information on a range of (current and past) demographic, health, social, and economic variables. In addition, a village-level survey was conducted in each sample cluster, gathering information on economic and social conditions and infrastructure, as well as the prevailing customs and norms relating to the elderly.

Table 11.3 shows data on household expenditure[8] per capita (with no adjustments for economies of scale or adult equivalence) for widows and

6. Selection into ownership of land and retention of land after widowhood is also nonrandom.

7. The sample of households for the survey was selected in two stages. In the first stage, village administrative areas, or *panchayat,* were selected at random from district lists. In the second stage, within each *panchayat* households were chosen through a random sampling procedure based on registration lists. There was an average of about fifteen households in each of 103 sampling units selected.

8. Land-owning households were asked the quantity and market value of any consumption from own production.

nonwidows in the SARI sample. Across all caste groups, expenditure per capita is lower for widows than nonwidows, with differences of 20 to 25 percent (though, again, selection into widowhood is nonrandom, and it is likely that currently widowed women had lower prewidow expenditures than nonwidows). And across both widows and nonwidows, there is a clear gradient in expenditure per capita, with scheduled tribes worst off on average, having expenditures per capita less than one-half of that among forward castes.

However, as mentioned above, such data are not entirely indicative of the consumption or well-being of individuals within households. Instead, we explore a reduced-form measure of consumption and nutritional status by examining the body mass index (BMI),[9] constructed from physical measurements conducted for all respondents in the survey. The last two columns of table 11.3 provide data on BMI across caste groups. Focusing first on nonwidows, there is a clear gradient in BMI by caste that mirrors that of expenditure per capita, with the scheduled tribes or castes having the lowest BMI and the forward castes having the highest (approximately 10 percent higher than the scheduled tribes). However, comparing widows and nonwidows within each caste group reveals interesting differences. In particular, for the scheduled tribes and castes, widows are no worse off in terms of BMI than nonwidows. However, there are large differences between widows and nonwidows for OBCs and especially the forward castes. While forward-caste widows still have a slightly higher BMI than widows in the scheduled tribes, they no longer differ from the scheduled castes or OBCs. There is no longer any discernible gradient with caste, and in fact none of the across-caste group differences in BMI are statistically significant. In part, this lack of a gradient likely reflects the fact that there are stronger restrictions on employment among forward-caste women, as suggested by table 11.2, and may also indicate that widows in forward-caste households are not given as large a share of total household consumption as they are in lower-caste households. Thus, wealthier, upper-caste widows are no better off in terms of nutritional status than poorer but more equally treated lower-caste widows. Of course, the possibility of differential selection into widowhood across these groups cannot be ruled out.[10] Table 11.4 presents comparable data on BMI across caste groups for the NFHS, for all currently not-pregnant widows and nonwidows aged forty-five to forty-nine. Similar patterns emerge in the SARI data, though a distinction arises between landed and nonlanded households. A similar weakening of the BMI gradient is seen among widows, and among landless widows the gradient is essentially absent.

9. BMI is weight (in kilograms) divided by squared height (in meters).

10. Of course, in all cases, we are unable to distinguish whether the lower consumption among widows is by choice or the result of an allocation of resources within the household over which they have no choice.

Table 11.4 **Body mass index, widows and nonwidows aged 45+, NFHS**

	Landed		Landless	
	Nonwidows	Widows	Nonwidows	Widows
Scheduled tribe	20.2	20.2	20.1	20.5
	(.13)	(.31)	(.18)	(.47)
Scheduled caste	20.4	20.7	19.8	20.1
	(.12)	(.33)	(.12)	(.31)
Other backward caste	21.2	20.7	20.5	20.3
	(.09)	(.24)	(.12)	(.34)
Forward caste	22.9	21.7	21.3	20.3
	(.10)	(.26)	(.18)	(.44)
Muslim	21.8	22.6	20.5	20.4
	(.19)	(.55)	(.20)	(.67)
Christian	21.9	21.8	21.4	20.9
	(.20)	(.46)	(.24)	(.50)

Source: Author's calculations from NFHS data.

11.4 Institutions, Customs, Norms, and Practices

There are many important institutions, behaviors, and practices surrounding widowhood that affect the well-being of widows, such as whether the widow is discouraged from remarrying, whether she retains full control of her husband's land upon his death, and whether she works. While widows' rights in all of these cases are protected by law, actual outcomes are likely to be shaped by societal constraints, traditions, and practices. Further, there are a variety of other social practices, customs, attitudes, and beliefs that affect the status and well-being of widows. For example, following the death of their husband, women are often expected to undergo a period of seclusion (remaining in a remote room in the home), followed by confinement to the home (or village) for a period of time, as well as permanently changing their diets (in particular, avoiding "heating" foods (*garam,* including meat, eggs, alcohol, onions, and garlic) in favor of "cooling" foods (*thanda,* including yogurt, rice, milk, and honey; Chen 2000). Widows are often also unwelcome at social events, ceremonies, and rituals, and avoided socially because they are considered bad luck, in part because of their association with death. *Sati* is the most extreme example of such practices, although the evidence suggests it is extremely uncommon and in fact has never been very widespread.

The various norms and practices, and more generally the status of the elderly and widows in particular, vary widely across India. Many authors have noted that women fare better in the south relative to the north along many dimensions of well-being, such as infant mortality, life expectancy, and education (e.g., Visaria 1967; Bardhan 1974; Miller 1981). Two explanations have typically been suggested for these patterns. The first is that

wheat is the dominant crop in the north whereas rice is dominant in the south, and the latter allows women to make a greater economic contribution, which in turn affects women's status. Consistent with a link between economic status and the treatment of women, Rosenzweig and Schultz (1982) find that differences in expected lifetime earnings for men and women are associated with differentials in male-female survival rates among children in India. The second explanation offered is the cultural and historical differences between the populations of the north and south of India. In particular, the northern populations are the descendents of Aryans that invaded northern India around 1500 BCE, whereas the dominant population in the south consists of descendents of the Dravidians who were either originally residing in the south or pushed from the north when the Aryans arrived. It is generally believed that the Dravidians and Aryans had widely varying social customs, practices, and organization.[11] However, this historical-cultural explanation only pushes the analysis one step back, and it then becomes important to ask why the Dravidians and Aryans had differing norms and customs (or why those norms and practices evolved differently once the Aryans arrived).

Our motivating hypothesis focuses around the first explanation, namely that there are certain economic conditions that differentially affect the comparative advantage of men and women (and the elderly and the young). For example, there are some crops, such as rice and tea, that are less strength intensive than others, such as wheat and other ploughed crops. Because women and the elderly are able to make a larger economic contribution in areas growing less strength-intensive crops, we might expect their status to be greater.[12] (Though it is also important to take into consideration that some crops, although strength intensive in their planting and harvesting, potentially provide secondary employment opportunities for women and the elderly in processing those crops, such as the grinding of wheat into flour).[13] It should be emphasized that we are not arguing for a model of "norms" in the sense of a set of behaviors or attitudes based on shared social beliefs and enforced through social and emotional sanctions and rewards, rather than as part of self-interested behavior; the greater status of women and the elderly could arise through a model of bar-

11. For example, it is believed that the Aryans brought caste with them to India, though it is also possible that the Aryans created caste at the time of their arrival in India, perhaps as a system to place the Aryans in positions of advantage and prevent intermarriage. Unfortunately, there are no recorded sources to determine whether the Aryans had different attitudes toward women at the time they invaded or whether those attitudes evolved afterward.

12. We are distinguishing the comparative advantage women or the elderly may have in particular crops from the idea of whether crops are "gendered." For example, especially in West Africa, some crops are considered female crops and others male crops. It often has less to do with the nature of the crop than with whether the crop is grown for own-household consumption (female crops) or as a cash crop (male crops).

13. Of course, it must also be kept in mind that norms could evolve the other way around, such that norms of respect and care for the elderly arise in places where they are less able to fend for themselves or live independently.

gaining within the household.[14] Empirically, the two are difficult to distinguish. Therefore, we do not argue in favor of one interpretation over the other, but instead focus on the reduced-form evidence relating the status of widows to the strength intensity of locally grown crops.

To test this hypothesis, we will explore how various indicators of the status and well-being of widows vary with indicators for whether the dominant crop grown in a village is "female" in the sense that women and the elderly have a comparative advantage in these crops over other crops. While the choice is somewhat arbitrary,[15] the following crops were considered not conducive to women or the elderly: wheat, maize, and other cereals. Crops considered more amenable to women or the elderly include rice, tea, tobacco, cotton, and pulse.

Regarding the status of widows, in addition to measures of consumption and health, the SARI gathered information from respondents regarding institutions, practices, and customs relating to women, the elderly, and widows. For example, respondents were asked whether they feel welcome at ceremonies or "connected" to the society around them. Some questions regarding status and treatment were asked retrospectively of widows, regarding changes in status and treatment around the time of widowhood. Our empirical analysis surrounds two primary specifications. We first examine indicators of women's well-being that vary as a function of widowhood in male versus female crop areas, estimating:

$$(1)\quad W_i = \gamma_0 + \gamma_1 \text{Widow}_i + \gamma_2 \text{FEMCROP}_i + \gamma_3 \text{Widow}_i \cdot \text{FEMCROP}_i + \sum_c \phi_c \text{CASTE}_i + \xi \mathbf{X}_i + \eta_i,$$

where W_i is an indicator of status or well-being and $\mathbf{X}_i$ is a vector of individual, household and village level covariates. The coefficient of interest is γ_3, the interaction term on widow and female crop—in other words, whether the difference in W_i for widows and nonwidows differs across male and female crop areas.[16] As indicators of welfare, we use the BMI, self-assessed health status (1 to 5, with higher numbers indicating better

14. In particular, where higher threat point utilities of women or the elderly improve their allocation within the household. It should be noted that threat points are often considered as the utility attainable if an individual left the household. While divorce is not common in India, it is not necessary to invoke leaving the household, since it could be that the woman instead threatens not to work or to work at less than her capacity.

15. It is possible to define crops that provide greater female employment opportunities as those in which we see a larger percent of female labor. However, that strategy introduces an element of circularity, since working outside of the household is in itself an indicator of women's status.

16. In order to allay concerns that crops are chosen in order to accord with the status of women, in additional specifications we use historical means and variability of rainfall and temperature as well as soil properties (pH, potassium, nitrogen, phosphorous, salinity, stoniness, and soil type) as instruments for crops grown in the village. However, we cannot rule out the possibility that groups migrate to places where the nature of agriculture and the opportunities for women are more consistent with their preexisting views on women's status.

health), whether they feel they are respected by others in the community, and how connected to society they feel (the last two of which also range from 1 to 5, with higher numbers indicating more respect and more connection). We also include a set of caste dummy variables (scheduled tribe, scheduled caste, and OBC), and indicators for whether the widow lives alone (about 11 percent) or with her children (about 56 percent).[17] As additional covariates, we also include age, education, income, household size, and whether the respondent is the head of the household. As stated, this is a difference-in-differences estimator, comparing the difference in the outcome of interest between widows and nonwidows in female crop areas relative to the difference in male crop areas. Unfortunately, the data are cross-sectional, and it is not possible to track individuals over time or examine selection into widowhood (which in itself could differ across male and female crop areas). Our goal will simply be to focus on whether the differences between widows and nonwidows vary with the crops grown locally. Further, we are only examining differences upon entering into widowhood in these areas: it is likely that women may be treated worse in male crop areas even when they are not widows, in which case we might not expect a large differential change at widowhood.

To examine the practices and changes in well-being, treatment, and status surrounding widowhood in male versus female crop areas, we estimate

$$W_i = \gamma_0 + \gamma_1 \text{FEMCROP}_i + \sum_c \phi_c \text{CASTE}_i + \xi X_i + \eta_i, \quad (2)$$

which has the advantage of explicitly examining changes in treatment and status in the two types of areas, rather than comparing widows and nonwidows. As indicators of changes in welfare following widowhood we examine the following: whether, at the time of their husband's death, there was change in treatment by the husband's family (1: better, 2: about the same, 3: worse); whether they lost control of their husband's land (0,1 conditional on having owned land); whether they noticed a change in their status among other people in the village (1: better, 2: about the same, 3: worse); whether they feel less welcome at ceremonies and events such as weddings or births (0,1); how long they remained inside the household after the death of their husband (in months); and whether they changed their diet (0,1) toward *thanda* foods. While these are imperfect measures and do not capture the full complexity of well-being, they are useful proxies for treatment and status along key dimensions following widowhood.

The results of regression (1) are presented in table 11.5. Across all four measures, BMI, self-assessed health, respect from others in the village, and sense of connectedness, widows are worse off than nonwidows. Body mass

17. Of the remainders, about 30 percent live with their deceased husband's family, 3 percent with other people.

Table 11.5 **Change in status and well-being indicators, widows vs. nonwidows, NFHS**

	BMI (1)	Self-assessed health (2)	Respect from others in village (3)	Connectedness (4)
Widow	–1.10	–.29	–.65	–.56
	(.49)	(.15)	(.27)	(.31)
Female crop	–.29	–.07	–.27	–.12
	(.16)	(.10)	(.08)	(.06)
Female crop × widow	.69	.24	.30	.48
	(.21)	(.13)	(.11)	(.19)
Age	–.008	–.005	–.003	–.01
	(.005)	(.003)	(.003)	(.01)
Education	.14	.13	.021	.16
	(.01)	(.01)	(.007)	(.05)
Scheduled tribe	–.68	–.31	.34	.57
	(.16)	(.10)	(.08)	(.06)
Scheduled caste	–.79	–.39	.35	.56
	(.15)	(.09)	(.07)	(.05)
Other backward caste	–.34	–.27	.29	.33
	(.15)	(.09)	(.07)	(.05)
North	–.27	–.10	.08	.08
	(.12)	(.07)	(.06)	(.04)

Notes: All results from the SARI data set. Sample restricted to women. The number of observations is 1,249. The dependent variable in column (1) is the body mass index (BMI). Self-assessed health status in column (2) is an indicator ranging from one to five (1 = very bad, 2 = bad, 3 = about average, 4 = good, 5 = very good). Respect from others in the village and connectedness also range from 1 to 5, with higher numbers indicating more respect and more connection to the village.

index is also statistically significantly higher in female crop areas, though this may in part not reflect an intrahousehold allocation issue as much as the fact that areas with male crops tend to be slightly better off on average. But in all four cases, the interaction term on female crop and widow suggests that the difference between widows and nonwidows is much larger in areas that do not have female crops. In fact, for self-assessed health and the sense of connectedness with the community, while widows are worse off in male crop areas, we cannot reject the hypothesis that widows are no worse off than nonwidows in female crop areas. Women in the lower castes generally have lower BMI and self-assessed health, as would be expected given the socioeconomic differentials by caste. However, interestingly, lower-caste groups feel more respect and social connectedness, which seems inconsistent with the view that lower castes explicitly have lower status under the caste system. However, it is possible that lower castes feel more respect or connection to others in the village of the same caste, since residence is often segregated by caste; unfortunately, the question did not make this distinction or specify the group meant by "the village."

Table 11.6 **Comparative change in status and well-being indicators, widows**

	Δ Treatment husb. family (1)	Δ Diet (2)	Lost land (had before) (3)	Δ Status in village (4)	Less welcome (5)	How long stay inside (6)
Female crop	–.31	–.18	–.21	–.16	–.13	–.94
	(.15)	(.06)	(.08)	(.06)	(.07)	(.39)
Scheduled tribe	–.25	–.06	–.12	–.10	–.039	–3.2
	(.06)	(.05)	(.07)	(.05)	(.05)	(.27)
Scheduled caste	–.19	–.10	–.03	–.08	–.034	–3.1
	(.05)	(.04)	(.06)	(.04)	(.04)	(.21)
Other backward caste	–.04	–.13	–.09	.005	.018	–1.7
	(.05)	(.04)	(.06)	(.04)	(.04)	(.28)
Education	–.01	.002	–.001	–.005	–.002	–.13
	(.006)	(.004)	(.001)	(.004)	(.004)	(.02)

Notes: All results from the SARI data set. Sample restricted to ever-widowed women. The number of observations is 978 for all columns except column (5), where it is 453 because the sample is restricted to those who owned land before widowhood and who have not remarried (since nearly all of those who remarry report losing their original land). In column (1), the dependent variable is whether the respondent feels her husband's family treated her 1) better, 2) about the same, or 3) worse following the death of her husband. In column (2), it is an indicator for whether the wife changed her diet following the death of her husband. In column (4), it is whether other people in the village treated her 1) better, 2) about the same, or 3) worse following the death of her husband. In column (3), the dependent variable is whether the widow lost access to her husband's land after his death. In column (5), it is an indicator for whether she felt less welcome at ceremonies such as weddings or births, and in column (6), the dependent variable is how long (in months) the woman stayed inside her husband's household following his death ceremony.

Table 11.6 further confirms that there are fewer adverse consequences of widowhood in female crop areas relative to male crop areas, using widows' self-reports of changes in indicators of welfare. Widows are less likely to report having experienced a decline in their relationship with their husband's family following the death of their husband, and among those who have not remarried, they are less likely to have lost their land (typically, to the family of the husband) in cases where they had owned land. In terms of social connectedness, they also are less likely to report feeling less welcome at public events or having experienced an overall decline in their status in the village since becoming widowed. Finally, in terms of individual behavior, widows are significantly less likely to have changed their diet in female crop areas (which could also account for some of the smaller decline in BMI in female relative to male crop areas) and spent on average about a month less confined to their deceased husband's home following his death.

The results on caste are also consistent with the view that widows are treated better and have higher status among the lower castes relative to the higher castes. In particular, relative to widows from forward castes, widows from scheduled tribe and scheduled caste groups are significantly less likely to have experienced a decline in the relationship with their husband's family or their status in the village upon widowhood. They are also less likely to have changed their diet and remained in their husband's home for significantly less time.

11.5 Conclusion

There are two primary lessons from this paper. The first is that issues of intrahousehold allocation are essential for assessing individual well-being, especially for the elderly. While this has been widely appreciated in economics for some time, very little is done about it in practice, and most studies focus only on household per capita measures in assessing living standards. This observation also has implications for studies on the relationship between SES and health. Further, the results also show that the relationship between SES and health or nutrition in India is more complex than simply the purchasing power potentially implied by income or expenditure; in particular, other factors, such as the treatment of individuals within the household, mediate this relationship. In particular, we find that widows are much better off in forward-caste households when measured in terms of per capita expenditure, but when BMI is used as a crude proxy for consumption of the elderly, forward-caste persons are no better off than lower-caste households, suggesting the share of household resources is not well proxied by expenditure per person.

The second lesson of this paper is that the status, treatment, and well-being of widows have a foundation in potential economic value, either through bargaining power within households or through a cultural underpinning to the evolution of cultural norms. Of course, this is not to claim that economic factors are the only, or even the largest, determinant of "culture" or to argue that factors such as history and lineage are not important. However, the evidence indicates that economic factors do appear to play at least some role in influencing the well-being and status of widows. The implication is that programs such as microenterprise ventures that expand economic opportunities for women or the elderly, attempts to minimize age or gender discrimination in private-sector employment, or gender- or age-sensitive hiring schemes for public projects, especially in places where the state employs a significant number of people, may improve women's and widows' status.

Appendix

A Brief Note on Caste in India[18]

Throughout India, caste is a social structure that is pervasive, highly visible, and an influence on most aspects of life, including employment and social opportunities, access to resources, customs, diet, occupation, and relations with others. Caste is transmitted through birth, though it is com-

18. This section draws broadly from Dumont (1980).

plex, dynamic, and changing: through marriage or changing some activities or practices, some castes move up or down. In general, there is a great deal of caste segregation regarding marriage and residential patterns.

The system referred to as caste today has its roots in the earlier *varna* (color) system. In the early Vedic period, society was said to be organized into four broad social groups, called *varnas.* The *varnas* represented a social hierarchy based on notions of purity and pollution. Some kinds of work are pure and some are impure or polluted, and the *varna* system was organized around the principle of delegating the various activities to particular groups, in particular to allow religious clerics to remain ritualistically pure. At the top of the hierarchy are the *Brahmins* (priests and teachers); then come the *Kshatriyas* (rulers and warriors), the *Vaishras* (traders and farmers), and the *Shudras* (servants or menial workers; more commonly referred to today as other backward castes [OBCs]). There is a fifth group outside this categorization, called by a variety of names such as the Outcastes, *Dalits, Harijans,* Untouchables, or the Scheduled Castes. For India, 15 percent of the population comes from the upper or forward castes, 15 percent are scheduled castes, and 8 percent scheduled tribes, with the remaining bulk of the population the *Shudras* or OBCs. Over time, the *varna* system evolved into or combined with the *jati* system, which is what is generally meant today by caste. *Jatis* are smaller categories that vary widely from place to place in India and can roughly be categorized to correspond to the *varnas* (or the scheduled caste category). The system has evolved over time, and there currently are over 3,000 castes and 20,000 subcastes, with a fairly well-defined social ranking.

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Comment

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The plight of widows in India is the focus of a growing literature. Widows are eminently vulnerable for several reasons: they are women; they are often relatively old (although women who married older men and did not remarry after their spouse's death can be young widows); and norms and usages restrict their mobility, the exercise of their property rights, and even the food they can eat and the dress they can wear.

This paper uses existing and original data from India to cast new light on two important issues: whether the treatment of widows is affected by their castes, and whether it is affected by their potential "usefulness." The main result of the first part is that, while widows from "forward" castes live in richer households than those in "backward" castes (which reflects the general correlation between caste and economic status), their own health status, reflected in their BMI, is no higher in forward than in backward castes. This is not true for nonwidows, who have a higher BMI in households from richer castes. The author interprets this evidence as suggesting that widows in high-caste households actually get a smaller share of a bigger cake, reflecting the more conservative habits of so-called forward castes. This is not the only possible interpretation, however: the sample does not seem to be restricted to older women, since, at least in the NFHS, most measurements are only obtained for women aged fifteen to forty-nine. If it is not, it might be that the differential caste gradient for widows and nonwidows just reflects a differential caste gradient for older women than for younger women, perhaps indicating a differential impact of food intake on

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BMI in older women, or that older women develop different priorities as they grow older, so that when they are better treated, they feed their grandchildren more. For example, Duflo (2003) shows that when the bargaining power of grandmothers increased in South Africa (as they received a substantial old age pension), their granddaughters were better fed. More information would be useful in sorting out some of Jensen's evidence: What is the caste gradient in self-reported health measures (used later in the paper)? What is the income gradient for widows and nonwidows? Does the differential caste gradient persist even after controlling for age? Does the income gradient differ by caste group? Is there a caste gradient in reported norms and usages?

The second part of the paper seeks to explain differences in the treatment of widows across regions. It hypothesizes that widows would be better treated in regions where women are more productive. The main result is that widows are better treated, relative to nonwidows, in places that grow rice (or other crops intensive in "women's labor") than in places that grow wheat (or other crops intensive in "men's labor"). This shows up in two types of variables: direct measure of health (BMI and self-reported health status) and report of constraints (on food, dress, mobility) associated with becoming a widow.

There is a bit of a theoretical lapse between the initial argument and the actual results: the argument involves the comparative advantage of women in general, not of widows in particular. Yet the regressions show that widows are doing better in regions where women have a comparative advantage relative to nonwidows. This is somewhat surprising, in view of the initial argument, since one would think that widows are less productive than other women and thus lose part of their comparative advantage vis-à-vis men. It is also very difficult to ignore the fact that the comparison essentially boils down to a comparison of different types of regions: as the author himself points out, there is a little bit of circularity in defining which crops are naturally more suited to women than to men, and to take the crop mix (or even the geographical suitability) as exogenous in a regression that seeks to explain longstanding customs. It might well be that communities that treat women more equally have evolved technology for production of crops which gives an important role to women. Perhaps if Dravidians had lived in the north instead of the south, wheat growing would actually be female intensive and rice would not. Instrumenting with weather or suitability would address this issue.

In this context, the positive difference-in-difference becomes more troubling than reassuring: since there are no theoretical reasons to expect one (in fact, a technological argument would lead one to expect the opposite), perhaps it comes precisely from these omitted variables. This is made even more troubling by the fact that, in general, women actually do not seem to be better off in rice-producing regions.

That being said, the main insight of the paper, that the treatment of widows, even if ostensibly governed by timeless norms, may actually respond in part to economic motives, is very important. The evidence provided here, while far from definitive, is certainly tantalizing. Chen and Drèze (1995) provide related evidence when they report that the presence of a widow's pension protects the widow from poor treatment. Abhijit Banerjee, Angus Deaton, and I hope to test this idea directly: widows in India are eligible for a pension, subject to certain conditions. The Panchayat is in charge of identifying potential beneficiaries. However, very few potentially eligible people actually receive the pension. This is probably due in part to the difficulties of navigating the system, establishing one's rights, and following through until the pension is actually delivered. We are planning to evaluate the work of Seva Mandir, a local nongovernmental organization, in one rural district in Rajasthan that will provide assistance to eligible widows to receive their pension. By comparing the treatment of widows who have received this assistance to those who have not, we might be able to provide a further test of the very interesting hypothesis brought forward in this paper.

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