# 'Provincialising' Vegetarianism

## Putting Indian Food Habits in Their Place

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Large-scale survey data are used to guestion the most public claims about food habits in India. It is found that the extent of overall vegetarianism is much less—and the extent of overall beef-eating much more—than suggested by common claims and stereotypes. The generalised characterisations of "India" are deepened by showing the immense variation of food habits across scale, space, group, class, and gender. Additionally, it is argued that the existence of considerable intra-group variation in almost every social group (caste, religious) makes essentialised group identities based on food practices deeply problematic. Finally, in a social climate where claims about food practices rationalise violence, cultural—political pressures shape reported and actual food habits. Indian food habits do not fit into neatly identifiable boxes.

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In the continuing saga to craft a national policy that satisfies the current regime's urge to control what people eat while not running afoul of the laws of the land, it is useful to take a step back and think about a right acknowledged by our courts and yet not substantively invoked in policy or political decisions. In a significant judgment in May 2016, the Bombay High Court overturned an amendment (passed in 1995, receiving presidential assent in 2015) to the Maharashtra Animal Preservation Act of 1976. That amendment banned the possession of beef even from outside the state. In overturning Section 5D of the amendment and lifting the ban, the judges made it clear that

if the State tells the citizens not to eat a particular type of food or prevents the citizens from possessing and consuming a particular type of food, it will certainly be an infringement of a right to privacy as it violates the right to be let alone. (Shaik Zahid Mukhtar v State of Maharashtra & Ors 2016, emphasis ours)

This paper attempts to see what people in India eat when "let alone" and what empirical facts such as intra- and inter-group variation do to claims about group food habits.<sup>1</sup>

Although the above ruling implicitly has the individual as the bearer of the "right to be let alone," "individual choice," including shaping of desires, preferences, beliefs and intentions, exists uneasily with social pressures to conform. The right to be let alone is, therefore, scarcely available to individuals who are routinely subjected to the power and hegemony of a group or community "culture" and increasingly a "national" culture that barely speaks to their own experiences. Such hegemony is sustained within society through the power of the media, community associations, and self-styled culture police such as vigilante gau rakshaks aided by legislators making the laws of the land: all of who regularly make public claims and representations about food practices (for example, valorisation of vegetarianism, and stigmatisation and criminalisation of beef-eating), seek social affirmation for their claims, demand conformity from others, and impose the same upon all with force or the threat of it. In this context, the right to be "let alone" needs to be viewed as a function of power and social position, part of the fears, threats and attempts at hegemony.

Such a situation of not being "let alone" produces a wide range of responses from the long-suffering individual, ranging from (reluctant) acceptance of hegemony, to surreptitious transgression of norms, and open resistance to domination. Given the simultaneous hegemony of vegetarianism and stigmatisation of beef, a cautionary note is needed when figuring out what India eats: any self-reported data on food habits are likely overestimations of

vegetarianism and underestimation of beef (and probably meat) in the diet. Indeed, the widely used and peculiarly Indian term "non-vegetarian" itself attests to the historical hegemony of vegetarianism in India, a status that is belied by the facts on the ground about its prevalence, thereby increasing the use of force to maintain the hegemony. Hence, we prefer to use the term "meat-eaters" to refer to those populations who are usually referred to as non-vegetarians. However, we have retained the latter term as well since it is an official category in a survey. It is necessary to acknowledge that the category vegetarian is actualised in everyday practices only through the explicit avoidance of meat, whereas the category non-vegetarian does not depend on any such proscription. Consequently, it is more logical to view these categories as "meat-avoiding" and "meat-eating," respectively.

This paper presents descriptive data on food habits from large surveys such as the National Sample Survey Office (NSSO) as well as the interpretive context for such data. Its main aims are (i) to establish a baseline of compelling evidence for evaluating claims about food habits of individuals and practices of groups in the light of the "beef bans" and resulting atrocities; and (ii) to raise the intellectual level of public discourse around beef-eating by complicating some of the key claims around vegetarianism, meat-eating, and beef-eating in particular.

Thus, we ask: how widespread is the vegetarian diet in India, and among particular religious and caste groups? Relatedly, how widespread is meat-eating in India, and especially among Hindus and across caste groups? And finally, can we estimate the extent of beef-eating in India?

Each of these questions brings into relief the importance of attending to variation, both within and across social groups, regions, and gender. Indeed, we find variation to hold the key to any explanations of social phenomena such as food habits, and to negotiate the cultural politics around food in India today. We are, consequently, interested in asking: What does in-group variation do to the frequent claims about the cultural practices of social groups? What does regional variation mean for claims about "national" food practices?

We begin with a synoptic representation of our key findings which, in our view, seriously question many public claims about food habits.

- (i) The extent of overall vegetarianism is much less than common claims and stereotypes suggest (no more than 30% and more realistically closer to 20% of the population).
- (ii) The extent of overall beef-eating is much more than common claims and stereotypes suggest (at least about 7% but more realistically closer to 15% of the population).
- (iii) There exists considerable variation of food habits across scale, region, group, class, gender; each complicating generalised characterisations of India based on meaningless averages.
- (iv) The considerable spatial variations within social groups ensure that almost no group-specific claims about food practices can really pass muster.
- (v) The significant gender gap within social groups and regions makes claims of group and regional "traditions" problematic.
- (vi) There is evidence of cultural-political pressures affecting reported and actual food habits, so that any reported data

need to account for the bias of under-reporting of meat and beef and over-reporting of vegetarian diet (hence, the need to *provincialise* vegetarianism).<sup>2</sup>

### What Do the Data Say?

Three large-scale surveys are available as potential sources of estimates of vegetarianism: the NSSO, the National Family Health Survey (NFHS), and the India Human Development Survey (IHDS). They are all based on multistage stratified designs with random household selection.

The NSSO survey is conducted by the Government of India's Ministry of Statistics and Programme Implementation, and is generally considered a high-quality data source. The latest NSSO data for consumption is the 68th round of the survey conducted during 2011–12 and it consists of a sample of 1,01,651 households in 7,469 villages and 5,268 urban blocks (NSSO 2013). The survey asks detailed questions regarding consumption of a very wide range of items, and among the three data sources, it alone asks separate questions regarding specific types of non-vegetarian items (eggs; fish and prawn; goat meat and mutton; beef and buffalo meat; pork; chicken; and other, such as birds or crab). For these and other food items, respondents were asked about quantity of consumption of items in the last seven or 30 days (separately) of the survey.

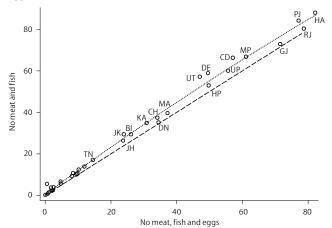
The NFHS is analogous to the Demographic and Health Surveys (DHS) conducted in over a hundred countries (IIPS and Macro International 2007). The NFHS data from the third round (2005–06), consists of separate large samples of women aged 15–49 years and men aged 15–54 years (1,24,385 and 74,369 observations, respectively). For food consumption, the survey focuses on specific items—milk or curd; pulses or beans; dark green leafy vegetables; fruits; eggs; fish; and chicken or meat—and asks respondents about how often the item was consumed, with four possible options (daily, weekly, occasionally, or never).

The IHDS was conducted jointly by India's National Council of Applied Economic Research and the University of Maryland. The sample consists of 27,010 rural and 13,126 urban households spanning 382 of 612 districts in 2001 in all states. Note that the sample size is less than half of the NSSO survey, besides covering a smaller range of consumption items (47 for IHDS compared to 400 for NSS; see Dang and Lanjouw 2015). Although the focus is broadly on education, health, and community-related indicators (Desai et al 2010: 12), the second round of IHDS, conducted in 2011–12, also asks the question: "Does anyone in your household eat non-vegetarian food?" Note, however, that the IHDS statewise estimates, being from relatively smaller samples, have less robust validity (Drèze and Khera 2015).

Below, we present estimates of meat consumption and vegetarianism from each of these three surveys. All estimates are generated after accounting for relevant sampling weights and household sizes.

Table 1 (p 56) presents estimates of vegetarianism from the three surveys. Given the specific questions related to consumption asked in each of the surveys, the estimates are not readily comparable. Nevertheless, we note that none of the estimates

Figure 1: Statewise Estimates of Vegetarianism with and without Including Eggs (NSSO)



The dashed line is the line of equality and the dotted line is the linear regression line.

is substantially above a third, and that the NFHS and IHDS estimates place this figure at a little less than a quarter of the population.<sup>3</sup> Further, these estimates are likely to be overestimates to the extent that some households may be reluctant to report meat-eating to a surveyor-especially those from castes or groups that may feel pressures to mask meat-eating. Moreover, in the case of the NSSO, the estimate is only for those who were vegetarian for the 30 days prior to the survey;4 it is likely that several meat-eaters, especially among poorer households, may have reported being vegetarian in the last 30 days, in which case, the NSSO estimate for vegetarianism in Table 1 is almost certainly an overcount. Such estimates are also echoed in a popularly cited survey, the Hindu-CNN-IBN State of the Nation Survey, which concludes that "the popular image of vegetarian India is off the mark, as only 31 percent of Indians and 21 percent of families (with all the members) were found vegetarian" (Yadav and Kumar 2006).

Table 1: Incidence of Vegetarianism in India

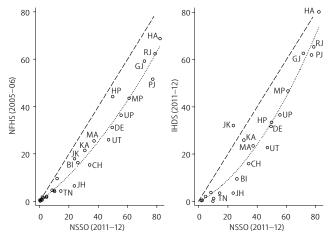
	NSSO (2011-12)	NFHS (2005-06)	IHDS (2011-12)
Vegetarianism (%)	36.88	24.72	23.48
Observations	1,01,651	1,98,585	41,991

For NSSO, estimates are for those who did not eat fish, meat or eggs in the 30 days prior to the survey; for NFHS, estimates are for those who answer "never" to the question of frequency of eating fish, meat or eggs; for IHDS, table gives estimate of those who answer "no" to the question of having at least one "non-vegetarian member in the household." The NFHS estimate is the average of separate estimates for women and men. All the above notes hold for estimates in all subsequent tables.

Wherever possible, we present estimates for vegetarianism defined as absence of meat, fish, and eggs. We note here that the patterns we report, and underlying arguments, will also hold if vegetarianism were defined as the absence of meat and fish (ignoring eggs). Figure 1 which plots statewise NSSO estimates for both definitions shows that both estimates are fairly close. The dashed line is the line of equality, and by definition all data points are above it; the dotted line is the linear regression line. The two lines are fairly close and somewhat parallel, suggesting that there is little difference in the distributions of the two definitions for vegetarianism.

**Regional variation:** Table 2a shows estimates based on a dichotomous location classification (rural/urban). Interestingly,

Figure 2: Incidence of Vegetarianism, Comparing Statewise Estimates of NSSO, NHFS and IHDS



In each graph, the dashed line is the line of equality and the dotted line is the quadratic regression line. Names are abbreviated in the case of the 17 "major states" identified by the NSSO based on population.

in all three surveys, there is little substantive difference in rural and urban locations. However, further parsing out for urban areas shows a more variegated picture. Specifically, as Table 2b shows, mega cities have lower incidence; indeed, IHDS estimates the incidence in the six largest metros to be only a little more than half of the overall incidence in rural or other

urban areas. Any explanation for this would need to include the fact of working-class migrations from different parts of India and across castes and religions to mega cities. Complicating this picture, perhaps counter-intuitively, if the mega cities are kept apart, the NFHs estimates (Table 2b) show that vegetarianism increases with urban size, from small towns to large towns to small cities to large cities. While we cannot

Table 2a: Incidence of Vegetarianism by Location (%)				
	NSSO	NFHS	IHDS	
	(2011–12)	(2005-06)	(2011–12)	
Rural	36.82	25.30	23.91	
Urban	37.04	23.64	22.56	

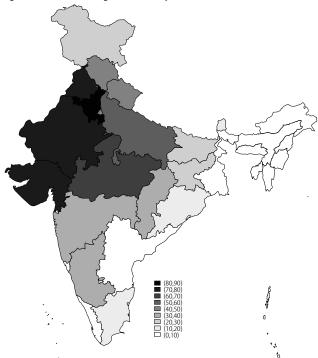
Table 2b: Incidence of by City Type	fVegetarianism (%)
	NFHS
Mega cities	19.83
Large cities	29.05
Small cities	26.86
Large towns	22.59
Small towns	18.11
Rural	25.30

say what may be driving this correlation, it does serve to establish the considerable variation in incidence of vegetarianism, in this case for urban scale.

Figure 2 presents an even more striking spatial variation across the country regarding incidence of vegetarianism. Note that although there are some differences across the three surveys, with NSSO typically producing higher estimates of vegetarianism than NFHS or IHDS, the difference in estimates for most states is fairly similar—as shown by the fact that the dotted quadratic fit line is somewhat parallel to the dashed line of equality—suggesting that differences in definition (described previously) are the likely explanation of these differences, further adding to the validity of the statewise variation (if not the absolute numbers) produced by each data set. For the remainder of this subsection, we focus on the NSSO estimates.

The substantive variations across states are nothing short of stupendous. In the same figure, six states have less than 2%

Figure 3: Incidence of Vegetarianism, by State (NSSO Data)



The choropleth map shows incidence of vegetarianism in states in ranges of 10 percentage points between 0% and 90%.

incidence of vegetarianism; these are all north-eastern states.5 Even among the 17 major states identified by the NSSO based on population, there are three with incidence less than 5% (Assam, West Bengal, and Kerala). In sharp contrast, at the other end of the spectrum, three states have incidence of over 75% (Haryana, Rajasthan and Punjab). In fact, only seven of the 17 major states have incidence over 50%, and six have less than 20% incidence of vegetarianism. The interstate variations form a distinct regional pattern, as is evident from the map in Figure 3. States in the West and North have relatively higher incidence, while states in the East and South have relatively lower incidence. This overturns the stereotype of Chennai's "South Indian vegetarian meal" and Delhi's kebabs and Punjabi chicken tikka. Such stereotypes may be more a function of the discursive making of national and regional cuisines, reflecting the hegemony of particular classes and castes of social actors in this production. Interestingly, a recent qualitative study notes that "[o]verall, however, it is clear that vegetarianism is the exception and not the rule, even in non-coastal states like Uttar Pradesh and Madhya Pradesh, where non-vegetarianism means the eating of goat and sheep meat" (Robbins 1999).6 At this point, given the paucity of historical data, we are only able to speculate that this regional pattern could be due to a complex of factors including agroecological availability of foods, cultural politics related to locally dominant social groups (castes, religions), and gendered differentiation in food habits (more on which below).

**Religious and caste group variation:** We now turn to variations by social groupings categorised by religion and caste. Table 3a focuses on religious categories. There are differences

between NSSO and NFHS estimates along lines that have already been discussed, but the broad pattern of inter-group variation is similar in both sets of estimates. Apart from Jains (overwhelmingly vegetarian) and Sikhs (majority vegetarian), no other religious category is majority vegetarian. Hindus—by far the largest group in the population—are majority meat-eaters with a little over two-fifths being vegetarian in the NSSO estimate and less than a third in the IHDS estimate. Christians and Muslims are overwhelmingly meat-eating populations. Interestingly, some earlier small-scale ethnographic studies too pointed in the above direction. In a pioneering paper, A K Chakravarti (1974: 403) suggested that "approximately 65 percent of the Hindus in India maybe assumed to be non-vegetarians."

The interesting question is: how do patterns of food habits form within social groups? Here, quantitative studies are limited in their ability to uncover the social mechanisms that produce group-level patterns. We need rich ethnographic accounts that explore the notion of "community" and the ways in which cultural identity produces norms (for example, food practices) which are ideologically rationalised and institutionally enforced to produce distinctive group-level practices. For example, in the paradigmatic case of Jains who show a remarkable homogeneity of food practices, it is very likely that religious concepts (such as ahimsa), ideology (dogma, doctrine) and precepts, and an ecclesiastical structure and institutions such as endogamous marital practices, organise the sociocultural lives of members and play a crucial role in shaping the food practices intergenerationally as meat-avoiding. For other groups, it is not as clear. As argued earlier, since the category of non-vegetarian does not depend on proscription (in general), the fact of remarkable homogeneity of meat-eating within Muslim and Christian populations is not a puzzle. What could be researched, however, is how and to what extent, Muslims, like Jains, may have evolved a social capacity to produce a pattern of avoidance of taboo foods (for example, pork). Such data do not exist as far as we know. On the other hand, it is not clear whether there exists a

pattern at the group level for the Hindu populations which show remarkable heterogeneity with respect to food practices. The Sikh case is puzzling, since Sikhism does not have injunctions against meat-eating (Guru Nanak having explicitly rejected vegetarianism) in shaping food practices.

Table 3a: Incidence of Vegetarianism by Religious Categories (NSSO and NFHS) (%)

	·····
NSSO	NFHS
41.88	28.49
6.73	1.83
6.71	0.86
79.39	52.96
21.82	6.96
98.23	94.87
	41.88 6.73 6.71 79.39 21.82

Table 3b: Incidence of Vegetarianism by Mega-caste Categories

		All	H	ndu
	NSS	NFHS	NSS	NFHS
	(1)	(2)	(3)	(4)
SC	31.44	15.72	30.70	15.76
ST	27.94	14.89	31.03	16.97
OBC	38.21	27.86	44.24	31.47
Non-SC/ST/OBC	41.35	30.96	51.73	37.67

Table 3c: Incidence of Vegetarianism by Social Categories (IHDS)						(%)
Brahmin	Forward Caste	OBC	SC	ST	Muslim	Christian
65.86	32.39	30.51	13.37	8.07	1.02	28.25

(%)

To explore further, Table 3b focuses on mega-caste categories. As before, despite differences in the NSSO and NFHS estimates, the broad pattern of inter-group variation is similar. In the overall NSSO estimate (column (1)), for the four categories, incidence is least among Scheduled Tribes (STS) but closely followed by Scheduled Castes (SCS), and it is higher among Other Backward Classes (OBCS) and highest in the residual category (non-SCS/STS/OBCS). The overall NFHS estimate (column (2)) gives the same rank ordering among categories. Further, while the differences among mega-caste groups are statistically significant, the size of the largest gap (namely, gap between STS and the residual category) is only 13.4 to 16.1 percentage points (NSSO and NFHS, respectively): far smaller than the differences among states or among religious categories.

#### **Mega-caste Categories**

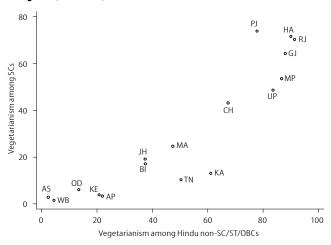
However, the mega-caste categories are cross-cutting religious categories. To see whether the pattern between STS, SCS, OBCS, and others holds for Hindus in particular, columns (3) and (4) of Table 3b present corresponding estimates. The inter-group pattern is largely similar to the overall estimates (columns (1) and (2)) except that incidence among SCS is now a little lower than STS (as opposed to a little higher as before).8

The IHDS is the only survey which presents estimates separately for "Brahmin" and "Forward Caste" categories. Table 3c shows that only two-thirds of Brahmins are vegetarian: much lower than stereotypes would have it, although expectedly higher than other groups in the table. Again, such a characterisation is corroborated by ethnographic studies that have documented the existence of meat-eating among Brahmin communities. Apart from the commonly known meat-eating and fish-eating practices of Kashmiri, Bengali and Konkani Brahmins, an early hint of the variations within Brahmins is Khare's (1966) study of meat-eating by one *gotra* of Kanya–Kubja Brahmins in Uttar Pradesh, a group that is generally thought to be strict vegetarians. Another study documents that it is very common for Brahmins in Garhwal to regularly consume meat (Joshi et al 1994).

Further, only one-third of forward castes are vegetarian, a figure that is not very different for the obcs. One inference from the above is that the ideological weight of vegetarianism is sustained largely by Brahmins, rather than the category forward castes where a majority are meat-eaters suggesting that the category vegetarian is intimately shaped by caste and Brahminism. On the other hand, the IHDS estimates of vegetarianism for SCS and STS are lower than even the NFHS estimates. Again, while the estimates for Muslims is low and comparable with NFHS, the estimates for Christians is intriguingly much higher than in NSSO or NFHS, and in fact not much lower than that for forward castes and OBCS in IHDS.

Finally, we note that there is considerable spatial variation in incidence of vegetarianism even within a specific social group. Figure 4 provides statewise incidence of vegetarianism (NSSO estimates) for 17 major states identified by the NSSO for SCS (vertical axis) and Hindu non-SCS/STS/OBCS (horizontal axis). In the case of SCS, although 31% are vegetarian according to

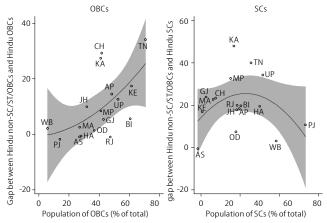
Figure 4: Spatial Variation of Vegetarianism within Specific Mega-caste Categories (NSSO Data)



NSSO estimates (Table 3b, column 1), Figure 3 shows that four of 17 major states have incidence of less than 5% (West Bengal, Assam, Andhra Pradesh and Kerala) and nine out of 17 have less than 20%, whereas three states have incidence of over 70% vegetarianism (Punjab, Haryana and Rajasthan). This spatial variation within the sc category is indeed striking. The range is exemplified by West Bengal and Punjab, both of which have large sc populations (24% and 32% of total population, respectively, according to Census 2011), and yet their scs are at opposite ends of the spectrum of vegetarianism (1% and 74%, respectively). Similar is the case with Hindu non-scs/sts/obcs. Although 41% are vegetarian according to NSSO estimates (Table 3b, column 1), Figure 3 shows that two of 17 major states have incidence of less than 5% (Assam and West Bengal) while two have incidence of over as high as 90% (Rajasthan and Haryana).

In Figure 4, the generally positive association across states between vegetarianism among the scs and forward castes (that is, Hindu non-scs/sts/obcs) suggests that reported vegetarianism could be shaped by regional as much as caste factors. Given the significant gap between scs and obcs on the one hand, and the far narrower gap between oBCs and forward castes on the other (Tables 3b and 3c), one could hypothesise the continuing, yet differential hold of vegetarianism as a culturally articulated form of ideological power in inter-caste relations shaping obc behaviour far more persistently than sc behaviour. However, this factor will depend upon the degree of dominant status and power of forward castes in a state to impose food norms. Wherever the latter group dominates sociopolitically, the incidence of obc (and to a lesser extent, sc) vegetarianism shows marked increases. This is explored in Figure 5 (p 59). The left graph plots, for major states, the difference in vegetarianism between Hindu "forward castes" and Hindu obcs, against obc share of population. There is a clear positive association, implying that as obc share increases across states, the vegetarianism gap with Hindu "forward castes" also increases: indicating ideological "breaking free" by OBCs. By contrast, there is no clear relationship in the right graph of Figure 5, which is the analogous plot for scs. The absence of a

Figure 5: Vegetarianism among OBCs and SCs in Relation to Population Shares (NSSO Data)



Population data from: Indian Human Development Report, 2011—Towards Social Inclusion. The graphs show the quadratic line of best fit and the shaded 95% confidence interval.

positive association for scs in Figure 5, combined with the fact of a consistent gap across states between sc and forward caste vegetarianism (Tables 3b and 3c) suggests that vegetarianism in scs as a group depends on other factors, possibly the vibrancy of Dalit movements in states and the prominence (or lack thereof) of food habits as symbolic elements within the formation of identity.

Consumption and wealth: Does incidence of vegetarianism vary by economic level of households? Table 4a suggests that vegetarian households have higher consumption and income relative to non-vegetarian households, in the NSSO and IHDS data.<sup>11</sup> This is consistent with incidence by economic status categories reported in Table 4b: the incidence of vegetarianism increases with higher economic class status. Such findings resonate with those of Vaidyanathan and Nair (1980: 381) who had argued long ago that "the variation in total animal protein intake is closely related to variation in per capita real income ... and the relative costs of different protein sources." Although they do not trace the actual social processes through which the availability of cheap protein translates into buying and

Table 4a: Incidence of Vegetarianism, by Household Expenditure and

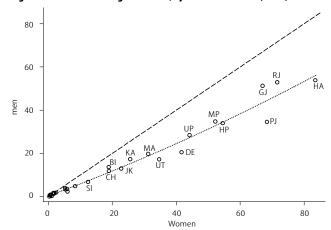
Encome, NFHS and	IHDS			(₹)
	MPCE (MRP)	MPCE (URP)		
NSS				
Vegetarian	1,715.34	1,678.76		
Non-vegetarian	1,575.60	1,552.45		
	hh Expenditure/ Capita	hh Income/ Capita	Tot hh Consumption Expenditure	Tot hh Income
IHDS				
Vegetarian	29,365	30,725	1,25,736	1,31,699
Non-vegetarian	24,566	25,191	1,04,152	1,07,624

### Table 4b: Incidence of Vegetarianism, by Economic Status, NEHS and IHDS

III IIJ aliu	כטוווי				(70)
	Poorest	Poorer	Middle	Richer	Richest
NFHS	24.56	28.05	27.855	29.44	40.285
	Poor		Middle Class		Comfortable
IHDS	19.23		26.71		30.49

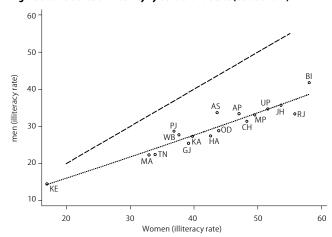
MPCE stands for household monthly per capita consumption expenditure. MRP and URP stand for mixed reference period and uniform reference period, respectively. IHDS figures are on an annual basis.

Figure 6a: Incidence of Vegetarianism, by Gender and State (NFHS)



The dashed line is the line of equality and the dotted line is the quadratic regression line.

Figure 6b: Incidence of Illiteracy by Gender and State (Census 2011)



The dashed line is the line of equality and the dotted line is the quadratic regression line.

consuming particular meats (including beef), such correlations point to the plausibility that "cultural" factors (such as religion or caste identity)—even if they were assumed to be important—are always part of a larger set of factors that impact human food preferences.

Gender and intersectionality: Separate estimates of incidence of vegetarianism for gender are available only from NFHs. Table 5a presents the basic estimate: incidence of vegetarianism is higher among women than men, and the gap is substantial (almost 10 percentage points, with incidence among women almost 50% higher than incidence among men). Further, the size

of the gender gap is similar between rural and urban areas, and across different city types. Figure 6a presents incidence for women and men across states: while there is a very strong positive correlation across states, the dotted quadratic fit line (which is fairly linear) pivots down from the dashed line of equality,

Table 5a: Incidence of Vegetarianism, by Gender and City Type (NFHS) (%)

	Women	Men
All	29.43	20.01
	(1,24,266	(74,319
Obs	ervations)	Observations)
Rural	29.90	20.70
Urban	28.46	18.81
Mega cities	24.39	15.26
Large cities	34.40	23.69
Small cities	32.26	21.46
Large towns	26.80	18.38
Small towns	22.36	13.86

suggesting that as men's (and women's) incidence increases, the gap also increases.

The persistence of such a gender gap, and its widening with overall incidence of vegetarianism, may be shaped by patriarchal structures and practices and their regional variations. We can offer only a very preliminary set of hypotheses to think with at this point. A portion of the gap may be related to the fact that men eat outside of the household a lot more than women do, and with greater moral impunity than women. This allows men to enjoy greater "flexibility" from norms in a patriarchal context. The other side of the same coin is that the burden of maintaining a "tradition" of vegetarianism falls disproportionately on women. However, eating out by itself does not result in eating meat. For this, a link has to be made between meat-eating and ideas of "masculinity" (Michelutti 2008). Such "gender ideology" may partially explain why the vegetarianism gender gap is relatively higher in states where politico-ideological Hindutva is more prevalent, a movement that is also masculinist (Banerjee 2012) and uses vegetarianism in cynical ways (Ghassem-Fachandi 2009). Figure 6a is consistent with the idea that women in these states mark the adherence to vegetarianism in far more visible ways than the men whose actions are often at odds with their claims.

These ideas are mirrored in trends in the illiteracy gender gap. Figure 6b, constructed from Census 2011 estimates, shows that there is both a persistent gender gap in illiteracy (there is greater incidence of illiteracy among women than men in all major states) and that the gap widens with overall illiteracy (the dotted quadratic fit line pivots down from the dashed line of equality). The graph for illiteracy (Figure 6b) bears a striking resemblance to the graph for vegetarianism (Figure 6a), suggesting that the (variable) strength of patriarchy (as documented richly in scholarship on literacy and gender) may also be at the heart of the variation in vegetarianism.

Table 5b shows the vegetarianism gender gap by social categories. In all cases, incidence continues to be higher

Table 5b: Incidence of Vegetarianism by Gender and Social Group (NFHS) (%)

		Religious Categories						
	Hindu	Muslim	Christian	Sikh	Buddhist	Jain		
Women	34.03	2.22	1.18	70.01	9.25	97.39		
Men	22.95	1.44	0.54	35.90	4.66	92.34		
		Mega-caste Categories						
	SC	S	T .	OBC		Others		
All (Women)	20.66	18	.09	33.10		35.51		
Hindu (Women)	20.68	20	.73	37.57		43.59		
Buddhist (Women)	9.75							
All (Men)	10.78	11	.68	22.62		26.40		
Hindu (Men)	10.84	13	.21	25.37		31.75		
Buddhist (Men)	5.00							

Table 5c: Incidence of Vege	etarianism by (	Gender and We	alth Quinti	le (NFHS) (%)
Poorest	Poorer	Middle	Richer	Richest

	Poorest	Poorer	Middle	Richer	Richest
Women	22.99	26.57	27.23	28.92	39.32
Men	16.54	18.65	17.75	18.19	27.04

able 5d: Couples Data (NFHS)	%)

		Woman	
		Meat Eater	Not Meat Eater
Man	Meat eater	65.22	12.03
	Not meat eater	3.17	19.59
N 20207			

among women than men. In the case of caste categories, the approximately 10 percentage point gender gap continues to hold. However, there are substantial differences in religious categories: the approximately 10 percentage point gap holds for Hindus (unsurprising since this is by far the largest population) but not for other religious categories: it is only half that for Jains and Buddhists, almost non-existent for Muslims and Christians, and a whopping 34 percentage points for Sikhs. The Sikh case is interesting since it throws up questions of the intersectionality of masculinity and religious precepts. Further, given the high incidence of Hindu–Sikh households in Punjab, ethnographic work is needed to illuminate the terms of relations (or the "pacts of/for conversion") as it relates to food practices. However, we are unable to say much more on this without robust qualitative studies.

Table 5c shows the gender gap by wealth. The gap is lowest for the poorest quintile, and increases with each quintile until the richest, with the richest quintile showing almost double the gender gap of the poorest. Note that overall incidence of vegetarianism also increases with wealth quintile, again consistent with the point made earlier that as men's (and women's) incidence of vegetarianism increases, the gap also increases. Again, we are only able to speculate that patriarchal relations could be at play in some manner here. As a robustness check, we also looked at the NFHS couples data set; this is a data set of almost 40,000 households with separate information from both male and female partners. Couples are meat-eaters in about 65% of these households, and vegetarians in only about 20% (Table 5d). Interestingly, in 12% of cases the husband was a meat-eater while the wife was a vegetarian, and in only 3% of cases was it the reverse; the difference, almost 10 percentage points, is similar to the gender gap estimated in Table 5a.

#### **Beef-eating**

The Nsso is the only household-level data source that provides estimates for beef consumption (the estimates are for beef and buffalo meat combined). Table 6a shows that the overall incidence in India is 7.5%, and only slightly more in urban than in rural areas. As we will argue later, this is clearly an underestimation. Table 6b shows that among religious categories, Muslims and Christians are most likely to eat beef (42% and 27%, respectively), and that the largest religious population (Hindus) has very small incidence of beef-eating. Among Hindus,

scs have 4% incidence and other mega-caste categories (OBCs and non-sCs/STs/OBCs) have even smaller beef consumption (less than 1%). However, not all OBCs or non-sCs/STs/OBCs are Hindu,

 Table 6a: Incidence of Beef-eating (%)

 (%)
 NSS0

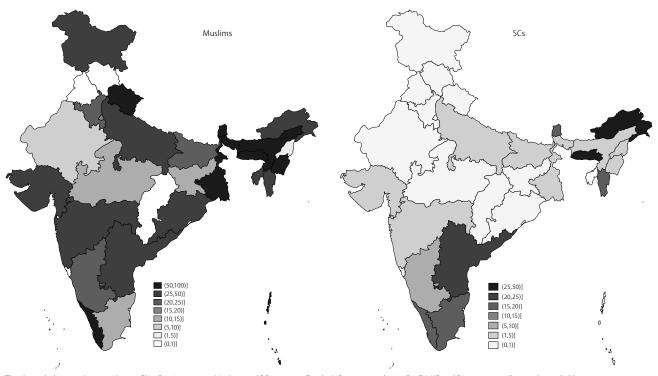
 All
 7.53

 Rural
 6.97

 Urban
 8.92

Table 6b: Incidence of Beef-eating, by Social Group				(%)	
Hindu	Muslim	Christian	Sikh	Buddhist	Jain
1.39	41.97	26.51	0	9.31	0
SC (Hindu)	ST (Hindu)	OBC (Hindu)	Non-SC/ST/OBC (Hindu)		
4.21	0.83	0.68	0.41		
SC	ST	OBC	Non-SC/ST/OBC		
4.57	5.12	6.23	12.36		

Figure 7: Beef-eating among Muslims and SCs, by State (NSSO)



The choropleth maps show incidence of beef-eating among Muslims and SCs in states. For the left map, sample size for CH, HP and PJ was too small to produce reliable estimates. The choropleth map is a size of the contract of the contract

and the non-Hindus from these categories report more beef consumption, which is why the overall incidence in these categories is higher in Table 6b.

**Underestimating beef-eating:** However, there are reasons to argue that the NSSO figures for incidence of some types of meat-eating, particularly beef, are considerably under-estimated. To explore this, we compare the NSSO estimates derived through the consumption survey with figures derived from aggregate estimates through the production side. Specifically, we turn to National Accounts Statistics (NAS) figures for production less net exports compiled by the Organisation for Economic Co-operation and Development (OECD) and Food and Agriculture Organization (FAO) of the United Nations Agricultural Outlook and presented in column (1) of Table 7.12 These figures for aggregate consumption, derived as a residual from the production side, are juxtaposed with aggregate consumption figures estimates from the NSSO household consumption survey (column (2)). For beef, note that the consumption survey produces a considerably smaller estimate, by an order of magnitude of 2.7 (column (3)),

Table 7: Aggregate Consumption Estimates for Different Meats

	FAO (1)	NSSO (2)	Ratio (FAO to NSSO) (3)
Beef	1,204	440	2.74
Mutton	743	528	1.41
Pork	358	77	4.64
Chicken	2,304	1,651	1.40

Consumption estimates are in 1,000 metric tonnes. Estimates for NSS are derived from original data using appropriate sampling weights for the 68th round (2011—2); figures for FAO are taken from OECD—FAO *Agricultural Outlook* (Edition 2016). "Beef" is beef and buffalo meat in NSSO and beef and veal in FAO; "mutton" is goat meat and mutton in NSSO and sheep meat in FAO; "chicken" is chicken in NSSO and poultry meat in FAO.

while the order of magnitude difference for chicken and mutton are only half this (1.4).

Admittedly, there are well-recognised, more general problems in comparing the production-derived (NAS) consumption figures with the direct survey-based consumption figures (NSSO), with the former typically overestimating consumption compared to the latter (Datt et al 2016; Sundaram and Tendulkar 2003); however, even in such estimates, the NAS/NSSO ratio of overall consumption is a little less than 1.5 (Deaton and Kozel 2005), that is, close to the 1.4 figure for chicken in Table 7. This fits well with the fact that unlike beef (or pork), the other two meats—chicken and mutton—are far less caught within cultural political and group identitarian struggles in India. Therefore, if we restrict our analysis to a comparison of different meats, and take the ratio of 1.4 as the "natural" discrepancy between the two estimates, then any additional discrepancy can arguably be attributed to under-reporting of a specific meat in relation to chicken. If this is the case, then for beef, the additional discrepancy is 96%, that is, comparing the difference 2.74–1.40=1.34 with 1.40 from the ratio for chicken. In short, the NAS estimate is almost double the NSSO estimate after accounting for natural discrepancy, placing the figure of beefeaters in India at 14.7% of the population.

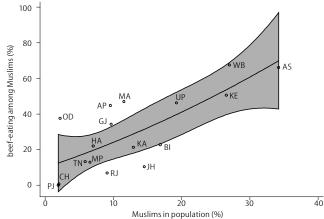
Note that the aforementioned estimates are for aggregate consumption. How do the results translate into incidence of beef-eating? Suppose the beef consumption of beef-eaters who report not eating beef in the NSSO, is on average similar to consumption of those who do report beef-eating in the NSSO. Then this would straightforwardly imply that actual incidence is about 15%, that is, 96% more than the 7.5% estimated in NSSO.

Such a figure need not be too surprising since the estimates of beef-eating among Muslims and Christians as reported above are far less than what we may arguably expect in communities that do not have cultural–ideological proscriptions against beef. Note that if some of those who do report beef-eating in the NSSO still under-report the extent of beef consumption, then the estimated actual incidence would be concomitantly lower than 15%. However, we feel that given the nature of cultural–political pressures on beef-eating and its reporting, such pressure will be manifested more in denial of beef-eating rather than under-reporting the extent of beef-eating. Consequently, in our judgment, the figure of 15% beef eaters in India is a reasonable estimate in a sociopolitical climate that makes declarations of beef-eating a hazardous act.

Spatial variation and cultural politics: Below, we explore an alternative approach to gauge under-reporting of beef-eating. We begin with the idea that cultural-political pressures against beef-eating vary by region, and that, arguably, this would be reflected in spatial variations in the incidence of reported beefeating in NSSO, and therefore also the extent of under-reporting. Consider, specifically, the case of Muslims and scs (Dalits), two social groups on whom cultural-political pressures have been particularly strong: all instances of recent lynchings and beatings of people accused (typically falsely) of killing or eating cows being Muslims and Dalits thus far. Although Muslims are the most likely to eat beef among the NSSO categories in Table 6b, there is considerable spatial variation in reported beef-eating among Muslims, as shown in Figure 7 (left map) (p 61). Beefeating among Muslims is over 50% in three states (West Bengal, Assam and Kerala), all of which have relatively high Muslim populations; and yet beef-eating among Muslims is only 7% in Rajasthan and 10% in Jharkhand, states with lower Muslim populations. Similarly, there is considerable spatial variation in reported beef-eating among scs as well, as shown in Figure 7 (right map) (p 61). Beef-eating among scs is 22% in (combined) Andhra Pradesh, 19% in Tamil Nadu, and 17% in Kerala. By contrast, it is less than 1% in several states: Chhattisgarh, Jharkhand, Odisha, Rajasthan, Punjab, Madhya Pradesh, and Haryana (and between 1% and 2% in West Bengal, Uttar Pradesh, and Assam).

Why might such large spatial variations exist in the incidence of reported beef-eating in NSSO among Muslims and SCS? There is some evidence to suggest that at least a part of this spatial variation may be due to cultural–political pressures. In the case of Muslims, it turns out that the larger the Muslim share of a state's population, the greater the incidence in reported beefeating among the state's Muslims. This is shown in Figure 8, which plots incidence of beef-eating among Muslims against share of Muslim population across 17 major states (data from NSSO and Census 2011, respectively) as well as the quadratic fit with 95% confidence intervals. Note that despite only 17 observations, there is a clear, substantive, significant and fairly linear positive association between Muslim beef-eating and Muslim population proportion. Given the much higher risks and stigma that are involved with beef-eating, such a positive correlation

Figure 8: Beef-eating and Muslim Population (NSSO and Census)



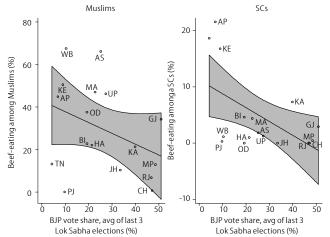
The graph includes the quadratic regression line and the shaded 95% confidence interval.

with the shares of population are, if anything, even stronger than those of OBC populations and meat-eating mentioned in the previous section. The adage of "strength in numbers" may be best tested in real-life situations. Thus, when the Haryana chief minister made his (in)famous comment on beef-eating and what Muslims needed to do in order to continue to live in India, he simultaneously said that the "Muslim brothers of Mewat district have voluntarily given up beef" (NDTV 2015). The dubious accounting of a chief minister's barely veiled threat to Muslims as resulting in a "voluntary" act by a minority community, was hopefully not lost on the general public.

Similarly, in the case of scs, the spatial variation in Figure 7 (right map) may be at least partially explained by spatial variation in cultural-political pressures on scs. It is striking that the four southern states top the list of beef-eating among scs in the major states; these are precisely the states with a relatively longer and stronger history of Dalit liberation movements (Jaffrelot 2003; Shah 2004), and, with the exception of Karnataka, these are also states where Hindutva-fuelled culturalpolitics pressures have been relatively less impactful: compared to, say, Chhattisgarh, Rajasthan, Madhya Pradesh, and Uttar Pradesh, all of which have very low incidence of beefeating among scs. The case of Karnataka, which is a relative exception among southern states, is particularly interesting. Although Karnataka is placed at rank number four among states for sc beef-eating (7%), the other three southern states have over double or triple this incidence (22% in combined Andhra Pradesh, 19% in Tamil Nadu, and 17% in Kerala). The Hindutva movement in Karnataka is far stronger than in Andhra Pradesh, and the Dalit liberation movement is arguably less articulated, so that although the two states have somewhat similar sc population shares (18% in Karnataka, 20% in Andhra Pradesh), they have starkly different incidence of sc beef-eating.14

To further examine the relation of beef-eating among Muslims and scs to Hindutva politics, Figure 9 (p 63) plots incidence of beef-eating against average vote share for the BJP in the major states for the last three Lok Sabha elections (2004, 2009, 2014) using data from the Election Commission of India (the linear regression line with 95% confidence intervals is also shown). We acknowledge that average BJP vote share across these three

Figure 9: Beef-eating and BJP Vote Share (NSSO and Election Commission Data)



The graphs include linear regression lines and the shaded 95% confidence intervals.

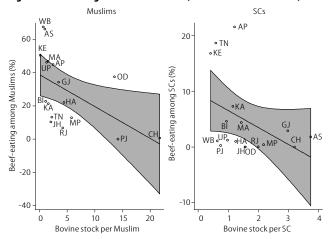
elections is only a partial indicator of the hold of Hindutva pressures, especially since there is temporal variation in the role of Hindutva factors in BJP electoral performance. Nevertheless, as Figure 9 reveals, states with greater BJP vote share tend to have lower incidence of beef-eating among both Muslims and scs.<sup>15</sup>

Finally, we address a potential alternative explanation of spatial variation in NSSO beef-eating estimates, namely availability of beef. As a proxy for availability, we take data on number of bovine livestock from the 2012 Livestock Census (GoI 2012) and compute statewise figures for the number of bovine livestock per Muslim and per sc. Figure 10 plots incidence of beefeating reported in NSSO against these figures. In both cases, reported beef-eating is significantly negatively associated with livestock availability, suggesting that availability per se is not the issue. Further, states with more cultural-political pressures (as argued earlier) and with weaker (or less radical) Dalit emancipatory movements tend to be below the linear regression line, implying that they tend to have lower incidence of beef-eating relative to what would be predicted from the average relationship between incidence and livestock availability. This difference, we argue, is suggestive of cultural-political pressures being a key factor in suppressing the incidence of beef-eating. In a very insightful commentary on the politics around beef, we are reminded of the existence of many recipes for beef dishes that are camouflaged in public discourse and on menus in restaurants (Anveshi 2012). These are cultural artefacts for the ways that data on beef are surely underestimated in these dangerous times.

#### **Conclusions**

It should be clear from the above empirical exploration that characterising India as a vegetarian land is a gross misrepresentation of reality: the vegetarian population of India is at best 31%, and realistically less than 20%. A majority of Indians, clearly, eat some form of meat on a regular or occasional basis, and eating only a vegetarian meal is not the cultural practice of an overwhelming majority of the country. This too could be changing in the direction of more people eating meat: not a

Figure 10: Beef-eating and Bovine Livestock (NSSO and Livestock Census)



The graphs include linear regression lines and the shaded 95% confidence intervals.

surprising possibility given that scholars have viewed cultures as changing with the times and shaped by political, economic, and ecological pressures on populations. It also implies that "policing of food choices" needs to be part of scholarly attempts to represent cultural groups in a multicultural society. What is claimed as group or national tradition is not innocent of power and struggles over hegemony. Our attempt here has been therefore to initially "provincialise vegetarianism" which has exerted a far greater influence on representations of India and Indians than merited by its empirical existence.

The evidence presented in this paper also makes clear that eating beef is the cultural practice of significant numbers of Indians (at least about 15% or about 180 million people). Again, estimations of actual numbers of beef-eaters in the country requires sober accounting for factors such as cultural politics and deep-seated fears that skew the numbers in the direction of underestimation. We have tried to stay as close to the data as possible in this case. Our estimates err on the side of conservative figures that are defensible in interdisciplinary scholarly debates.

A key way in which we have complicated most pictures of food habits in India is by insisting on attending to variations (across different dimensions of location type, region/state, social group, gender and class, and within social groups). Attention to variations allows scholars to initiate preliminary inquiries into underlying explanatory possibilities and social mechanisms or processes that sustain social phenomena such as food habits of populations. It allows us to fruitfully engage with problems of generalisability to populations, which requires awareness of the need to view culture as a production and not simply a given, of being critical of public claims about cultural practices and of viewing social groups as constructed categories rather than as actual mobilised groups. If (food) habits are indeed formed within cultural spaces where learning and transmission of meanings of food takes place, then scholars need to look at how food habits become markers of group identities in everyday life struggles and interactions.

Much of these data reveal the need to not assume cultural homogeneity within socially constructed groups. Scholarship

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needs to attend to the very interesting intra-group variations. Any elision of such variation needlessly reproduces, in scholarship, what social actors mobilising group identities claim in de rigueur fashion as part of their political objectives. Social analysis that conflates social categories with actually existing groups and their practices only runs the risk of reifying the very categories which need to be questioned. In this sense, it is

better to view India as agroecological and cultural–political zones rather than as a conglomeration of social groups. Basic questions such as "what is food" and "who decides who can eat what" get determined in the registers of power, desire, identity, and preferences. It requires engaged scholarship that takes reflective public positions on ostensibly "private issues" when they are not "let alone."

#### NOTES

- 1 A key development since then has been the upholding of the "right to privacy" as a fundamental right by the Supreme Court of India in August 2017.
- 2 Inspired by Dipesh Chakrabarty's (2000) work, we use the term "provincialise" as an attempt to decentre a category (vegetarianism) that has been hegemonic in discourse and thinking about food in India.
- 3 For NFHS, Table 1 gives estimate for those who answer "never" to the question of frequency of eating fish, meat, or eggs; for fish and meat alone, the estimate goes up slightly, to 32.61% for women and 24.30% for men.
- 4 For NSSO, Table 1 gives estimate for those who did not eat fish, meat, or eggs in the 30 days prior to the survey; for fish and meat alone, the estimate goes up slightly, to 40.08%.
- 5 There is some degree of variation even among the North East states, with Nagaland, Mizoram and Tripura having less than 1% incidence while Sikkim has 12% and Arunachal Pradesh 4.7%.
- 6 According to the Anthropological Survey of India's survey (1993), 88% of the 4,635 communities in India were meat-eating, suggesting that vegetarianism is far less a cultural practice of communities than it is a preference of individuals.
- 7 Our focus is on descriptive statistics and inferential (statistical test) results are not reported here.
- 8 We also separately checked incidence among Buddhist SCs, given the long history of Dalit conversion led by Ambedkar. (Note: 90% of Buddhist women and men are SC, and 90% of SCs are Hindu.) The NSSO estimate (24.63) and the NFHS estimate (7.38) differ considerably, perhaps because of the relatively smaller sample size and method of sample selection involved in each survey, so we do not analyse these results further, or present them in the main table.
- 9 In IHDS, "Forward Castes" are those other than SCs, STs, OBCs and Brahmins.
- 10 Note that we do not have accurate OBC data because censuses do not compute these. For Figure 5, we rely on data provided in the *Indian Human Development Report*, 2011–Towards Social Inclusion (Planning Commission 2011); the report calculates these from the 64th round of the NSSO.
- 11 The differences are statistically significant, although statistical test results are not reported here.
- 12 https://data.oecd.org/agroutput/meat-consumption.htm or OECD (2016), Meat consumption (indicator); doi: 10.1787/fa290fdo-en (viewed on 1 December 2016).
- 13 In fact, the estimated coefficient for the bivariate linear regression of incidence of beef-eating among Muslims against Muslim share of population (for 17 major states) is 1.74 (standard error 0.30), implying through extrapolation that a hypothetical state with 100% Muslim population will have 74 percentage points

- more incidence of beef-eating among Muslims than a state with no Muslim population..
- 14 Another factor that could partially explain the higher than expected vegetarianism is the influence of religious reform movements that insist on vegetarianism as part of their identity claims.
- Despite a small number of data points (17), the relationship is statistically significant at conventional levels for SCs (p-value 0.034) although this is not the case with Muslims (p-value 0.131). In the case of Muslims, the relationship does become significant at conventional levels (p-value 0.006) if all states and union territories are included. Note that the estimated coefficient sizes are fairly large: in the case of Muslims, for the regression with all states and union territories, the estimated coefficient is -0.74, implying through extrapolation that a hypothetical state with 100% BJP vote share will have 74 percentage points less incidence of beef-eating among Muslims than a state with no BJP voteshare. Coincidentally, this figure is identical to that obtained for the relationship of beef-eating with Muslim population (see note 13), as well as somewhat close to the figure of 96% yielded by the earlier comparison of NAS and NSSO estimates. Note, of course, that Figure 9 is insufficient for causal attribution, and we are not arguing that BJP electoral performance directly "causes" meat-eating or meat avoidance, although we speculate that a "third factor"-namely the cultural politics of Hindutva-separately causes both better BJP performance and more meat avoidance.

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